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IT DOES MATTER WHO YOUR FRIENDS ARE: A CASE STUDY OF NETFLIX AND "FRIENDS" LICENSING

Cori O. Crews, Valdosta State University Casey J. Colson, Valdosta State University Raymond J. Elson, Valdosta State University

CASE DESCRIPTION

The primary subject matter of this case concerns using managerial accounting in business decision making. This case has a difficulty level appropriate for sophomore or junior level managerial accounting courses. The case is designed to be taught in one class hour and is expected to require one hour of outside preparation by students. The case is designed to be presented and completed during the one hour of class time.

CASE SYNOPSIS

Netflix changed the way consumers watched movies and tv shows and became a global leader in streaming entertainment. The majority of Netflix's content library of movies and tv shows is not Netflix original content but rather content owned by third parties. Netflix is allowed to use this content under licensing agreements. One of its most popular streaming shows, "Friends", is licensed content. Upon renegotiation of the show's license and facing possible removal of the show, Netflix agreed to pay \$100 million for a one-year license for "Friends". This was a \$70 million increase in the license from the prior year. This case provides a realworld setting for applying managerial accounting concepts, for example cost-volume-profit and cost-benefit analyses, to aid in short-term decision making.

INTRODUCTION

Kelly opened the door of her dorm room to the familiar sound of the TV show "Friends" theme song.

"Hey, you can't watch that without me! We agreed to go through the series together," sulked Kelly to her roommate Jade.

"Don't worry. I was just cuing it up so it would be ready when you got back from class. I also ordered pizza for our Friends-a-thon tonight," replied Jade.

"I love this show!" exclaimed Kelly.

"Me too and I'm glad we found it when we did because it may not be on Netflix for too much longer," said Jade.

"Why not?" asked Kelly.

"I read somewhere that Netflix had to pay \$100 million just to keep the show this year and they may not be able to keep it past this year," answered Jade. "Wow! That's a lot of money!" said Kelly. "If they paid that much, Netflix must have had a good reason to keep it. I wonder why they would pay so much money for just one year."

"You accounting majors! I just want to know if Ross and Rachel are going to get back together or not," Jade replied.

"I want to know that too! But now I'm really interested in finding out more on this Netflix and "Friends" deal. Let me look up a few things before the pizza gets here," said Kelly. This is what Kelly found as she started researching.

COMPANY BACKGROUND

Netflix was formed in 1997 by Reed Hastings and Marc Randolph as an available-bymail DVD rental company. It was rumored that the origin of the company came about after Mr. Hastings had to pay a \$40 late fee to Blockbuster for his delinquent return of the movie "Apollo 13". Mr. Randolph later confessed that this was a fictional account but was an effective way to highlight one of their company's advantages over its competitors – no late fees (Castillo, 2017). Netflix's plan was simple. For a flat monthly fee, subscribers could rent movies and keep them for as long as they wanted without worrying about late fees. Subscription prices were tiered based on the subscriber's preference for receiving one or multiple DVDs at a time as well as the number of rentals allowed each month. Once finished, customers would mail the DVDs back in provided envelopes and the next DVD on their list would be sent to them.

The company added a streaming service in 2007 providing instant access to movies and television shows. Within three years, Netflix's subscriptions rose to 20 million (Brief History, 2014). Today, Netflix is the leading provider of internet home entertainment streaming (Iqbal, 2018; Levenson & Waniata, 2019). Users can stream content on a wide variety of internet-ready devices such as smartphones, tablets, computers, smart TVs, gaming consoles, set-top boxes, and streaming media players (i.e. Amazon Fire TV, Roku).

Netflix provides a multitude of viewing choices via its streaming service. The company produces a number of original movies and series in addition to its vast library of licensed content. One of the company's first original series, "House of Cards," premiered in 2013 (Brief History, 2014). The first season earned nine Emmy nominations and won three (Sottek, 2013). These were the first such nominations and wins for a show created for and viewable only online. Netflix earned a total of 112 Emmy nominations in 2018 surpassing HBO and ending that network's 17-year leading record (Watercutter, 2018). In 2019, Netflix finally hit "gold" at the Academy Awards by bringing home four Oscars: three for "Roma" and one for "Period. End of Sentence." (Accolades, n.d.; Kay, 2019). This was on the heels of winning more at that year's Golden Globe awards (five) than any other contender (Feiner, 2019). Other nominated and award-winning Netflix original content includes "Orange is the New Black", "The Crown", "Stranger Things", "Master of None", "Unbreakable Kimmy Schmidt", and "Bloodline" (Accolades, n.d.).

MEMBERSHIP

Netflix has more than 139 million streaming subscribers in over 190 countries streaming a total of more than 140 million hours of content per day (Iqbal, 2019; Netflix, 2019a). U.S. subscribers account for over 58 million of these total subscribers and have three subscription plans from which to choose - Basic, Standard, and Premium. The plans are priced based on simultaneous streaming ability. The basic plan is \$8.99 a month and allows a subscriber to stream content on one screen in standard definition (SD). The standard plan is \$12.99 a month and allows a subscriber to stream content on up to two screens simultaneously in high definition (HD). The premium plan is \$15.99 a month and allows a subscriber to stream content on up to four screens simultaneously in HD and Ultra HD (Netflix, 2019b). While Netflix does not disclose the breakdown of each subscribers are on the premium plan (Seitz, 2018). Membership data and selected financial data for Netflix's domestic (U.S.) streaming segment is detailed in Exhibit 1 below.

Exhibit 1 Domestic Streaming Segment

		As of/ Year Ended December 31,				
		2018		2017		2016
	(in thousar	nds, except rev	venue pe	r membersh	ip and po	ercentages)
Memberships:						
Paid memberships at end of period		58,486		52,810		47,905
Paid net membership additions		5,676		4,905		4,504
Free trials		2,065		1,940		1,526
Contribution profit:						
Revenues	\$	7,646,647	\$	6,153,025	\$	5,077,307
Cost of revenues		4,038,394		3,470,859		2,951,973
Marketing		1,025,351		603,746		412,928
Contribution profit		2,582,902		2,078,420		1,712,406
Contribution margin		33.8%		33.8%		33.7%

Consolidated (All Segments)

	As of/ Year Ended December 31,					
		2018		2017		2016
	(in thous	ands, except r	evenue per	r membershi	ip and pe	rcentages)
Revenues	\$	15,794,341	\$	11,692,713	\$	8,830,669
Cost of revenues		9,967,538		8,033,000		6,257,462
Marketing		2,369,469		1,436,281		1,097,519
Contribution profit		3,457,334		2,223,432		1,475,688
Other operating expenses		1,852,108		1,384,753		1,095,895
Operating income		1,605,226		838,679		379,793
Other expense		(378,768)		(353,358)		(119,286)
Provision for (benefit from) income		15,216		(73,608)		73,829
taxes						
Net Income	\$	1,211,242	\$	558,929	\$	186,678

Source: Netflix, Inc. 10-K for Year Ended December 31, 2018

COMPETITION

Netflix operates in a highly competitive market. Other streaming services such as Hulu and Amazon Prime Video vie for consumer dollars and loyalty. A 2018 survey reports that Netflix is the leader in subscribers with Amazon and Hulu trailing behind having approximately 60% and 37% of the number of subscribers compared to Netflix (Iqbal, 2019). Hulu and Amazon have similar services as Netflix offering subscribers a library of shows and movies from which to choose and stream. However, they each have a different competitive advantage. Hulu offers a library of content both old and new but can serve as an alternative to traditional cable tv. Hulu gives subscribers access to currently aired shows once they have aired live on their respective networks and subscribers can also choose the Hulu Live option which is live tv offering 60+ channels with DVR capabilities in addition to the Hulu library. Amazon Prime Video is a component of the Amazon Prime membership and, as such, offers many additional benefits such as free shipping on Amazon purchases, Prime Video, and Prime Music all for the same membership price.

Netflix's claim to fame is the vastness and diversity of its content. Netflix pays an estimated \$13 billion a year for content (Levenson & Waniata, 2019). Part of that goes to produce original content as previously discussed. Both Hulu and Amazon Prime Video have begun competing with their own original content. Notables include "The Handmaid's Tale" on Hulu and "The Marvelous Mrs. Maisel" on Amazon Prime Video. However, neither Hulu nor Amazon Prime Video have the volume or the level of acclaim and award status with their original content as Netflix (Levenson & Waniata, 2019).

The majority of Netflix's content is not original content but rather licensed content (Spangler, 2018). Netflix must pay the owner of the content a fee to gain the right to use that content. For example, "The Office" is owned by NBC. In order to offer this show, Netflix must pay NBC a specific amount and is then allowed to use it for a certain amount of time such as a year, three years, etc. Once the time period ends, the license can be renegotiated or either parties (Netflix or NBC) may choose not to renew the license and the show would be dropped from Netflix's content. Licenses may be exclusive or non-exclusive. If Netflix negotiates an exclusive license, they will be the only service allowed to show that content. However, exclusive licenses are also more expensive than non-exclusive (Beers, 2019).

Several of the licensed content providers that Netflix has agreements with are in the process of launching their own streaming services creating additional competition for Netflix and possible content issues. Both Disney and AT&T/WarnerMedia have announced plans to offer streaming services in 2019 (Gates, 2019; Sorrentino & Solsman, 2019). Disney's service launches in November 2019 and is called Disney Plus. The service includes the films from Disney, Pixar, Marvel, and Star Wars. Disney also now owns 21st Century Fox and, as such, is including holdings from this entity such as "The Simpsons" and "The Sound of Music" in the Disney Plus platform. WarnerMedia's streaming service will be called HBO Max. Offerings will include content from HBO, Cinemax, TNT, TBS, and Warner Bros. It is likely that these companies will remove some, if not all, of their content from Netflix once these services are up and running.

"FRIENDS" LICENSE

One of the shows that Netflix licenses from WarnerMedia is "Friends". The show is based in New York City and chronicles the lives of six friends as they transition from their 20s to their 30s and all the challenges, change, and antics that entails. The show originally ran from 1994 until 2004 (Lee, 2018). Often hailed as one of TV's most popular comedies, the show had a strong following throughout the series ending with the fourth largest finale audience at that time with more than 52.5 million viewers (Carter, 2004).

Netflix began offering "Friends" as part of its content library in 2015 (Lee, 2018). Fans that had watched the show in its original heyday were happy to see their old friends again. In addition, the inclusion of the series on Netflix opened it up to an entire new generation of viewers. People that were in diapers or were not even born when the series finale originally aired were now getting to know, and love, Rachel, Chandler, Monica, Ross, Phoebe, and Joey – the friends of "Friends". The renewed popularity of the show caught notice. In 2016, the New York Times published an article entitled "Is Friends Still the Most Popular Show on TV?" noting the show's resurgence and continued success (Sternbergh, 2016). Netflix does not make available their viewership for individual offerings. However, an independent source has ranked "Friends" as the third most highly watched series on Netflix as of 2018 (see Exhibit 2) (Spangler, 2018).

Exhibit 2 Top 10 Watched Series on Netflix					
Rank	Title	Owner			
1	The Office	NBC			
2	Chilling Adventures of Sabrina	Netflix			
3	Friends	Warner			
4	Grey's Anatomy	ABC			
5	House of Cards	Netflix			
6	The Great British Baking Show	Netflix			
7	Marvel's Daredevil	Netflix			
8	Narcos: Mexico	Netflix			
9	The Haunting of Hill House	Netflix			
10	Criminal Minds	CBS			

Source: 7Park Data

WarnerMedia also took notice. The license between Netflix and WarnerMedia gives Netflix exclusive rights to stream the series. Prior to 2019, the price tag for this license was approximately \$30 million a year (Lee, 2018). With plans for WarnerMedia to launch its own streaming service, the renewal of the "Friends" license was not certain for 2019. Rumors of a potential drop from Netflix's content created a social media outcry from fans with some even bemoaning that they only have a Netflix account to rewatch Friends episodes (Lee, 2018). One survey taken concerning the potential loss of customers in connection with content offerings indicated that approximately 30% of respondents would cancel their Netflix subscription if "Friends", "The Office", Marvel movies, and Disney content were removed (Shevenock, 2019).

Netflix was quick to reassure fans that they were in negotiations to keep the popular show and eventually did come to terms with WarnerMedia. However, it came at an increased price. Instead of paying the \$30 million as in previous years, Netflix paid an estimated \$100 million to keep "Friends" in its content library for 2019 (Lee, 2018). The license is only good for that year. After 2019, the show may no longer be on Netflix or WarnerMedia and Netflix may continue their license under non-exclusive terms allowing it to be on both WarnerMedia's streaming service and on Netflix.

CONCLUSION

"Pizza's here!" yelled Jade, breaking Kelly's concentration. "Okay," replied Kelly. "I'll be right there."

Her research had given her a lot of information and a lot to think about. There was a lot more to Netflix and the "Friends" deal than at first glance. The competitive environment in which Netflix operates is a lot more complex than she realized. Having a competitive advantage and differentiating oneself from other competitors is important. Netflix's content library was certainly one way they had stood out from the rest in the past. In light of these developments with "Friends" and other licensing, that may or may not be the case in the future. There was certainly a customer outcry to keep "Friends" as part of the Netflix content library. However, there was also the uncertainty of keeping the show past 2019. Kelly could certainly use this situation in her accounting class. She could use the information and apply some managerial accounting analyses to answer the question: Was it worth it to pay \$100 million for one year to keep "Friends"?

SUGGESTED QUESTIONS

- 1. What factors are involved in deciding to extend the "Friends" license for 2019? What are the potential benefits of extending the license? What are the potential costs of extending the license?
- 2. Various managerial accounting concepts and methods are often used by businesses considering large expenditures. These concepts assist in cost-benefit evaluations. One managerial accounting method that could be used in the decision to extend the "Friends" license agreement is cost-volume-profit (CVP) analysis. Determine the following CVP calculations that could assist in this decision.
 - a. What is the 2018 consolidated operating income of Netflix?
 - b. What are the 2018 fixed expenses of Netflix? (Hint: Other operating expenses should be used for fixed expenses.)
 - c. What are break-even sales in dollars for Netflix for 2018?
 - d. What is Netflix's margin of safety in 2018?
- 3. Another managerial accounting method that could be used to aid in this decision-making process is differential analysis. Firms use this analysis to weigh the incremental revenue

and incremental cost of a decision option and an alternative. The decision in reference to the "Friends" licensing is to continue with the license agreement for 2019 under the new contract terms and pricing or to discontinue the agreement. Construct a differential analysis for these two options considering

- a. the consolidated company.
- b. the domestic segment only.
- 4. Based on the above analyses, would you recommend that Netflix pay the \$100 million to keep "Friends" for a year? Why or why not? What factors do you think influenced Netflix's decision?

REFERENCES

- A Brief History of Netflix. (2014). Retrieved June 3, 2019, from https://www.cnn.com/2014/07/21/showbiz/gallery/netflix-history/index.html
- Beers, R. (2019). How Netflix Pays for Movie and TV Show Licensing. Investopedia. Retrieved June 3, 2019, from https://www.investopedia.com/articles/investing/062515/how-netflix-pays-movie-and-tv-showlicensing.asp
- Blackmon, M. (2019). 'Friends' Will No Longer Be Available On Netflix Starting In 2020. Buzz Feed News. Retrieved August 9, 2019, from <u>https://www.buzzfeednews.com/article/michaelblackmon/friends-no-longer-on-netflix</u>
- Carter, B. (2004). 'Friends' Finale's Audience Is the Fourth Biggest Ever. The New York Times. Retrieved June 3, 2019, from <u>https://www.nytimes.com/2004/05/08/arts/friends-finale-s-audience-is-the-fourth-biggest-ever.html</u>
- Castillo, M. (2017). Reed Hastings' Story about the Founding of Netflix has Changed Several Times. CNBC. Retrieved June 3, 2019, from <u>https://www.cnbc.com/2017/05/23/netflix-ceo-reed-hastings-on-how-the-company-was-born.html</u>
- Feiner, L. (2019). Netflix's Big Night at the Golden Globes Gives a Nod of Confidence for its Original Content. CNBC. Retrieved August 9, 2019, from <u>https://www.cnbc.com/2019/01/07/netflix-wins-big-at-the-golden-globes.html</u>
- Gates, C. (2019). WarnerMedia's HBO Max Streaming Service: Everything We Know About It So Far. Yahoo! Finance. Retrieved June 3, 2019, from <u>https://finance.yahoo.com/news/t-warnermedia-streaming-everything-know-164635445.html</u>
- Iqbal, M. (2018). Netflix Revenue and Usage Statistics. Business of Apps. Retrieved June 3, 2019, from http://www.businessofapps.com/data/netflix-statistics/
- Kay, J. (2019). Oscars 2019 Shows Netflix is in Awards Game for Long Haul. Screen Daily. Retrieved August 9, 2019, from <u>https://www.screendaily.com/features/oscars-2019-shows-netflix-is-in-awards-game-for-long-haul-/5137212.article</u>
- Lee, E. (2018). Netflix Will Keep 'Friends' Through Next Year in a \$100 Million Agreement. The New York Times. Retrieved February 22, 2019, from <u>https://www.nytimes.com/2018/12/04/business/media/netflix-friends.html</u>
- Levenson, J. & Waniata, R. (2019). Netflix vs. Hulu vs. Amazon Prime: Battle of the On-Demand Streaming Giants. Digital Trends. Retrieved June 3, 2019, from <u>https://www.digitaltrends.com/home-theater/best-on-demand-streaming-services/</u>
- List of Accolades Received by Netflix. (n.d.) Wikipedia. Retrieved August 9, 2019, from https://en.wikipedia.org/wiki/List_of_accolades_received_by_Netflix
- Netflix, Inc. (2019a). Form 10-K filed with the Securities and Exchange Commission for Fiscal Year Ended December 31, 2018

Netflix, Inc. (2019b). Signup. Retrieved June 3, 2019, from www.netflix.com/signup

- Seitz, P. (2018). Netflix Subscribers Upgrading to Premium Service Tier. Investor's Business Daily. Retrieved June 10, 2019, from <u>https://www.investors.com/news/technology/click/netflix-subscribers-upgrading-premium/</u>
- Shevenock, S. (2019). 49% of Young Viewers Would Cancel Netflix if It Loses 'Office,' 'Friends,' Disney, Marvel. Morning Consult. Retrieved June3, 2019, from <u>https://morningconsult.com/2019/05/14/49-of-young-viewers-would-cancel-netflix-if-it-loses-office-friends-disney-marvel/</u>
- Sorrentino, M. & Solsman, J. (2019). Disney Plus: Release Date, Price, Shows and Movies to Expect on the Streaming Service. CNET. Retrieved June 3, 2019, from <u>https://www.cnet.com/news/disney-plus-shows-movies-price-release-date-shows-movies-avengers-marvel-star-wars-black-panther/</u>
- Sottek, T.C. (2013). Netflix Challenges the TV Establishment with Emmy Wins for 'House of Cards'. The Verge. Retrieved June 3, 2019, from <u>https://www.theverge.com/2013/9/22/4759754/netflix-challenges-the-tv-establishment-with-emmy-wins-for-house-of</u>
- Spangler, T. (2018). Variety. Netflix Original Series Viewing Climbs, But Licensed Content Remains Majority of Total U.S. Streams. Variety. Retrieved June 3, 2019, from <u>https://variety.com/2018/digital/news/netflix-original-series-licensed-viewing-friends-the-office-1203085230/</u>
- Sternbergh, A. (2016). Is 'Friends' Still the Most popular Show on TV? New York Magazine. Retrieved February 25, 2019, from https://www.vulture.com/2016/03/20-somethings-streaming-friends-c-v-r.html
- Watercutter, A. (2018). With 112 Emmy Nominations, Netflix Officially Rules Television. Wired. Retrieved June 3, 2019, from (https://www.wired.com/story/netflix-emmy-nomination-supremacy/

DESIGN THINKING METHODS FOR BUSINESS PLAN DEVELOPMENT: A STRUCTURED APPROACH TO IDEA GENERATION THAT PROMOTES CREATIVITY

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ABSTRACT

This paper provides six design methods for entrepreneurship educators to utilize with students in university-level entrepreneurship courses during the idea generation phase of the business plan development process. Design thinking not only provides a more structured approach to generating ideas, but it leads to a greater number of ideas to emerge that are more creative and solution-based. This paper presents two design methods for each position on the goods-services continuum depending on whether the business concept is more focused on pure goods, pure services, or hybrid products. The design thinking methods included are called: Attribute Listing, Reversal, A Fresh View, Rich Pictures, Wishful Thinking and What-If Analysis. Each method includes steps for implementation, and all are ideal for traditional classroom time and resource restraints. There are several benefits to using these methods. For example, students do a better job of collaboration, and self-perceptions of their creative thinking abilities increase.

INTRODUCTION

The purpose of this paper is to provide entrepreneurship educators with six design thinking methods they can use with students in university-level entrepreneurship courses that develop business plans. The design thinking methods presented provide a structured approach to idea generation that fosters more creativity. This paper provides two design methods for each position on the goods-services continuum. Each design method includes steps for implementation that are suitable for the typical college classroom, given time restraints and available resources. Design thinking methods offer a more creative and solution-based approach to enhance students' abilities to become more effective idea generators.

LITERATURE REVIEW

Developing business plans is a very common pedagogical method used in universitylevel entrepreneurship courses and programs. Common goals of these courses and programs include increasing entrepreneurial awareness, developing entrepreneurial skills, cultivating attitudes and intentions, and assisting students in choosing a career (Hills, 1988; Garavan & O'Cinneide, 1994; Autio, Keeley, Klofsten, & Ulfstedt, 1997; Johannisson, Landstom & Rosenberg,1998; Franke & Lüthje, 2004; Liñán, 2008; Schwarz, Wdowiak, Almer-Jarz, & Breitenecker, 2009; Packham, Jones, Miller, Pickernell, & Thomas, 2010; Fretschner & Weber, 2011). Business plans are used in the majority of courses and programs (Honig, 2004) to fulfill these goals (Youndt, Subamaniam, & Snell, 2004; Fayolle, Gaily, & Lassas-Clerc, 2006). Several universities even provide students with the opportunity to create a real venture as a part of a class, student club, or other programs (Lee, Chang, & Lim, 2005; Rodrigues, Dinis, do Paço, Ferreira, & Raposo, 2012).

Creativity is a trait that has been linked to successful entrepreneurs for decades (Glennon, Albright, & Owens, 1966; Timmons, 1978; Wilken, 1979; Nystrom, 1993; Amabile, 1996; Ward, 2004; Luca & Cazan, 2011) and therefore important for students of entrepreneurship to assess and cultivate (Ward, 2005; Batey & Furnham, 2008).

Creativity is a precursor to innovation. Creative thinking is the act of generating new ideas or conceiving something original. Innovation is the act of implementing those new ideas. Therefore, innovation is the successful exploitation of creativity in profitable outcomes such as new products, services, and processes that create value. Anderson, Potocnik, and Zhou (2014) propose an integrative definition where creativity and innovation together are considered the process, outcomes, and products of attempts to develop and introduce new and improved ways of doing things.

Research outcomes by Berglund and Wennberg (2006) indicate that creativity can be affected by educational efforts. Others suggest that entrepreneurship educational practices that promote divergent thinking and creativity allow students to learn the necessary skills needed in today's business world (Winslow and Solomon, 1987; Gundry and Kickul, 1996). Dyer (2015) contends that creativity is a discipline that begins with learning how to look at situations from multiple angles, removing blinders, and opening possibilities.

Getting students to be creative when generating business plan ideas is a challenge. Most students want to be creative but do not know how to tap into their creative abilities. Design thinking methods are very valuable tools that help them do this. Design thinking refers to creative strategies designers use during the process of designing (Visser, 2006; Brown, 2008). Archer (1965) and Simon (1969) were perhaps the first to use the term 'design' to describe a way of thinking. One of the major benefits of design thinking is that it is considered to be solution-based instead of problem-based (Dorst, 2001).

Glen, Suciu, and Baughn (2014) promote the incorporation of design thinking into the current business school education system, specifically naming entrepreneurship as a subject that calls for the use of design thinking methods. It is a source of business competitiveness that promotes creativity, innovation, and a better understanding of the customer's true needs. By using design thinking methods, students can become more effective at generating ideas focused on solutions rather than problems (Dorst, 2001; Glen, Suciu, & Baughn, 2014).

This paper provides six design thinking methods, unique from each other, that students can use to generate more creative and solution-based ideas for business plans depending on where their business concept falls on the goods-services continuum. The goods-services continuum provides students more focus to determine the relative goods to services composition of their business ideas. It also enables them to identify more opportunities.

There are several classifications of the goods-services continuum in the literature. For example, Vandermerwe and Rada (1988) used three stages: 1) the company is in either a goods or a services business; 2) goods and services are combined in the offerings, and 3) offerings are

complex bundles of goods, services, information, support, and self-service elements. Many others propose different types of classifications (Chase, 1981; Bowen, Siehl & Schneider, 1989; Mathieu, 2001; Davies, 2003; Oliva and Kallenberg, 2003; and Gebauer, 2008). This paper utilizes the continuum proposed by Martin and Horne (1992). Their goods-services continuum provides four positions: 1) pure goods, 2) core goods with accompanying services, 3) core services with accompanying goods, and 4) pure services (See Figure 1).

Figure 1: The Goods-Services Continuum							
Pure Goods	Core Goods with Accommodating Services	Core Services with Accommodating Goods	Pure Services				
1	2	3	4				

Examples of pure goods include canned beverages, shirts, and candles. Examples of pure services include lawn mowing, house cleaning, and teaching. Positions two and three on the continuum are considered hybrid products, which is a combination of both goods and services. The actual position depends on whether there are more goods (2) or more services (3) in the mix. Examples of hybrid products include restaurants, new vehicles, and home repair services where a customer is also purchasing goods such as a new water heater or air conditioning unit.

DESIGN METHODS

While dozens of design thinking methods exist (see Table 1), the six methods presented in this paper can be conducted easily in a university-level entrepreneurship course given the number of students, classroom setting, resources available, and time required (50-75 minutes). For each position on the goods-services continuum, two design methods are provided, with positions two and three combined.

Design Method	Description
Convergence Map	Draw a map of converging markets and show emerging opportunities
Eras Map	Draw a map that illustrates trends of distinct eras in time to uncover topics of interest
Innovation Landscape	Draw a map of an industry's innovations over time
Trend Expert Interviews	Conduct interviews with trend experts to learn about potential developments
Trends Matrix	Create a matrix that summarizes changing trends and how they might lead to opportunities
Popular Media Scan	Read about broad cultural topics in published media such as blogs and magazines
Keyword Bibliometrics	Research online publications and databases by searching with keywords of interest
Financial Profile	Chart and compare the financial portfolios of leading organizations in an industry or market
Interest Group Discussion	Participate in an interest group discussion about key topics of value
Human Factor Observation	Observe how current users interact with an existing product
People-Environment Study	Observe a situation to see how people interact with their environment
Video Ethnography	Video people in their environment over time to reveal new insights
Image Sorting	Have people sort through and select images that reveal their thoughts and attitudes on a topic
Experience Simulation	Emerge people in a simulated experience to better understand what matters to them
Insights Sorting	Create a board that clusters similar ideas from various types of research
Descriptive Value Web	Draw a diagram that illustrates how value is created by different entities in an industry
Venn Diagram	Create a diagram that shows how different entities and ideas overlap
Activity Network	Create a visual structure of stakeholder activities to show their relationship to each other
User Journey Map	Draw a map of a product user to show their journey through a context or time period
Summary Framework	Design a framework that summarizes key insights from various forms of product analysis
Concept Analogies	Generate new ideas by connecting concepts to something that is familiar
Role Play Ideation	Try to see another person' point of view by role playing their interaction with s product
Concept Scenarios	Illustrate concepts as real-life stories featuring users and their environment
Concept Evaluation	Develop a rating system to score concepts according to users, providers, and others
Solution Enactment	Act out solutions to problems to demonstrate how they work and create value
Solution Database	Organize all concepts and solutions in a searchable database
Strategy Roadmap	Draw your plan for innovative soluionts for the short-term, mid-term, and long-term
Strategy Workshop	Conduct a workshop for everyone involved to plan for and align ideas and solutions

 Table 1:

 LIST OF OTHER DESIGN METHODS & BRIEF DESCRIPTION

For pure goods (position 1), the two methods are called Attribute Listing and Reversal. These two methods are well-suited for goods because goods are objects that tend to have more physical properties than services and are more perceptible to the five senses.

Attribute Listing

Attribute Listing allows students to take an existing good in the marketplace and redesign it to create something novel. This method provides a focused approach to break the good down into specific parts and prompts different ways to modify or improve each attribute and then recombine them to identify new forms of the good. Steps for implementation are as follows:

- 1. Identify the existing good you wish to modify or improve.
- 2. Generate a very detailed list of all of its attributes (e.g., size, weight, function, design, material, color, style, durability).
- 3. Generate multiple variations of each attribute separately.
- 4. Combine the new variations of the attributes listed in step three to identify unique approaches for redesigning the good.

 Discuss the feasibility of developing the alternatives identified in step four and choose the most exciting and feasible idea(s). (Morgan, 1993; Smolensky & Kleiner, 1995)

Attribute Listing fits well on the goods side of the continuum because goods are tangible, and tangible items have physical properties that we experience through touch, smell, sight, and other senses. Attribute Listing alone may be the only method needed to generate a good idea for unique and novel goods. However, Reversal is a great method to pair with Attribute Listing.

Reversal

Reversal allows students to see a good from an opposite viewpoint. The attributes of the good (from the Attribute Listing method) are stated in opposite terms. Human assumptions structure social reality. When our assumptions change, so does the reality of the situation. Reversal helps students generate novel ideas. Steps for implementation are as follows:

- 1. Conduct steps one and two from Attribute Listing.
- 2. Reverse all the attributes of the good by assigning the opposite verb or adjective. For example, a common attribute of games is that they require competitors. A reversed assumption is a game that does not allow competition. Instead, students could generate ideas for a game that requires cooperation.
- 3. Use the reversal statements to generate novel ideas for new goods. Initially, the ideas do not come forward easily because Reversal completely "flips-the-script" and forces them to think the opposite of what they believe is good or right.
- 4. Select at least one Reversal statement and completely develop a workable idea around it. Mattimore (1995); McFadzean (1999)

Like Attribute Listing, Reveral fits well on the goods side of the continuum because it focuses on the tangible elements of goods that we experience through our senses.

For hybrid products (positions 2 and 3), the two methods are called Fresh View and Rich Pictures. These two methods are well-suited for hybrid products that combine the characteristics of goods and services.

Fresh View

This method uses the views of outsiders to provide a fresh perspective on existing combinations of goods and services. The basis for this method is the assumption that the closer a person is to a situation or challenge, the more he or she tends to narrow or specialize his or her thinking. Steps for implementation are as follows:

- 1. Describe the good/service idea in a very simple way so that anyone can understand it.
- 2. Provide your description to one or more outsiders who were not involved in developing it. An outsider should have little to no knowledge or experience with the business concept under development.
- 3. Carefully listen to and record all outsiders' ideas. Ask for clarification when necessary. Do not judge outsiders' ideas as good or bad or dismiss any idea.

- 4. Review the ideas offered by outsiders. Openly consider each one, because one outsider's view may spark ideas of your own. Even the use of a single word by an outsider may help reframe previous ideas.
- 5. Revise your original ideas for the good/service by taking the "fresh view" of the outsiders into consideration.

(Heye, 2006; Michalko, 2006)

An example of success using Fresh View is that of an executive of a major motel chain who took the advice of a sanitation worker to sell pizzas in his motels, which turned out to be a great success (Michalko, 2006). The Fresh View method works well for hybrid products because the combination of goods and services naturally creates complexity. Not everything is clear and tangible. Therefore, the intangible elements are examined more through discussions with others.

Rich Pictures

The Rich Pictures method uses drawings and pictures created by the students to describe their ideas for goods and services, allowing their intuitive consciousness to communicate. The process brings forth contextual issues that may go unnoticed, which leads to new insights, more understanding, and new patterns of thinking, which foster more and perhaps better ideas to emerge. Steps for implementation are as follows:

- 1. Describe a current good/service in the marketplace by writing it in words on a flip chart or white/blackboard.
- 2. Draw a metaphorical picture of the good/service described in step one. Metaphors such as animals or vehicles are useful. For example, someone might draw a picture of an old, rundown car to illustrate a good/service that he or she believes is outdated or no longer useful.
- 3. Next, draw a picture of a new and better version of the good/service using the same type of metaphor. Perhaps someone draws a smaller, sleeker, faster car.
- 4. Share your two pictures with the rest of the students by describing each picture, including the properties, the relationships between them, and the reasons behind the images.
- As each person shares their pictures, begin to generate ideas for the good/service described in step one. McFadzean (1998); Proctor, Hua Tan, and Fuse (2004)

The Rich Pictures method reveals patterns, relationships, and perceptions that may not have otherwise emerged. Rich Pictures also provides more information on 'what is' versus 'what is desired.' Like the Fresh View method, this works well for hybrid products because not everything is clear and tangible. Therefore, the intangible elements are examined more through the drawings and discussions with others.

For pure services (position 4), the two methods are called Wishful Thinking and What-If Analysis. These two methods are well-suited for services because they tend to be more abstract than goods, are naturally immaterial, and are more elusive to the five senses.

Wishful Thinking

This design method engages intrinsic motivation. Students discuss their service idea by beginning each sentence with the words, "I wish." Completing these sentences reveals issues that are intrinsically important to them. More insight grows when these deeper thoughts become more widely known. Then, ideas that are central to everyone's true desires begin to emerge. Steps for implementation are as follows:

- 1. Describe the service idea for the business concept.
- 2. Form "I wish" statements centered on the service idea. Statements can also begin with words like, "In a perfect world..." or "It would be great if we could...".
- 3. Begin to extract the practical issues from the more wishful statements. For example, "It seems like everyone is primarily concerned with quality issues surrounding our idea."
- Move the discussion back to reality and ask more practical questions. For example, "How can we improve the quality of our service idea?" Couger, Higgins & Mcintyre (1993); McFadzean (1998)

The process of Wishful Thinking unveils what is really on everyone's minds by having them state things in a more positive "I wish" manner rather than in a negative way by complaining or arguing. Steps three and four bring the discussion back to more practical issues that can be addressed and resolved. This design method works well with service ideas because many elements of intangible services often go unheard and unseen. Wishful thinking encourages people to think more deeply and talk more openly about what needs improvements.

Wishful Thinking and What-If Analysis complement each other. It is often useful to engage in one and then follow up with the other on a different day and in a different setting to see what additional ideas emerge.

What-If Analysis

The What-If Analysis method approaches the service idea from a question and answers approach. It is a systematic but loosely structured assessment of the issues surrounding the idea. This method allows students to reflect on existing and similar service businesses and helps them see possible modifications and improvements, which leads to more and better ideas. Steps for implementation are as follows:

- 1. Describe the service idea and identify its major components. Major components might include quality, price, and speed of delivery.
- 2. Select one major element at a time and generate What-If questions as hypothetical scenarios. For example, "What if we were able to cut the speed of delivery in half?"
- 3. As you address each major element, develop new ideas and solutions for improvement. You might not be able to cut the speed of delivery in half, but you will most likely generate ideas on how to reduce the speed of delivery to some degree that will improve the overall idea.
- 4. Combine the new ideas and solutions to address the overall service idea described in step one. By breaking down the service idea into smaller components, you can generate more ideas and solutions and address issues more comprehensively. Michalko (2006); Sloane (2006).

Like Wishful Thinking, this design method works well with service ideas because of the intangibility of service elements, which can go unseen or unheard. What-If Analysis allows deeper issues to emerge, so ideas for improvements can develop.

DISCUSSION

By using these design methods for business plan development in university-level entrepreneurship courses, the author has observed several benefits for students. They help students: 1) identify a greater number of ideas, 2) generate ideas that are more solution-based as opposed to problem-based; 3) organize and refine their ideas, 4) see patterns and relationships between ideas, 5) transform abstract issues into more concrete ideas, 6) better collaborate with each other in generating ideas, 7) develop better self-perceptions of their creative thinking abilities, and 8) develop more creative and novel ideas.

The first six benefits listed in the previous paragraph are critical, given the common limitations of a typical 16-week undergraduate or graduate course in entrepreneurship. As instructors, we must work with a certain number of students, the constraints of a traditional classroom setting, limited resources, and limited time (length of the class period and the number of weeks in a semester). Table 1 outlined several other design methods. However, many of these methods take more time or must be conducted outside of the classroom. The six design methods presented in this paper offer the eight benefits listed and can be conducted in the classroom and in enough time for students to develop their business plans.

Empirical evidence illustrates benefits 7-8, which helps to justify the use of the six design thinking methods offered in this paper. A 10-item survey asked students to evaluate their own creative thinking abilities on a five-point Likert scale. One example is, "I feel confident I can perform creatively throughout this course." The highest score possible on the self-perception survey was 50, and the lowest was 10. A pre and post-survey were conducted to determine if exposure to these design methods enhanced self-perceptions of creative thinking abilities. The average pre score was 33.3. The average post-score was 39.8, which is a 6.5 point increase or 19.4%.

Students also completed an online test that measures the following eight metrics of creativity:

- Abstraction the ability to abstract concepts from ideas
- Connection ability to make connections between things that don't initially have an apparent connection
- Perspective ability to shift one's perspective on a situation in terms of space, time, and other people
- Curiosity desire to change or improve things that everyone else accepts as the norm
- Boldness confidence to push boundaries beyond accepted conventions
- Paradox ability to simultaneously accept and work with contradictory statements
- Complexity ability to carry large quantities of information and be able to manipulate and manage the relationships between such information
- Persistence the ability to force oneself to keep trying to derive more and stronger solutions even when good ones have already been generated

(testmycreativity.com)

Like the self-perception survey, students took the test before they participated in the design thinking methods assignment. They took it again after they completed the assignment. All students' creativity scores improved. The average pre-assignment score was 55.23. The average post-assignment score was 66.53, which is a 20% increase. Figures 2-4 show three examples of a pre and post creativity test of students who participated in the design thinking method assignment.



Figure 2 - Student A: Post



Figure 3 - Student B: Post

Pre





Your creativity score is 56.2



Figure 4 – Student C:



One can see that the overall shape of the creativity measures does not change much from pre to post, but it does grow in size. This indicates that using the design methods discussed in this paper helps students develop components of creativity they already demonstrate.

In addition to using all design methods separately for each position on the continuum, students can also combine methods in different positions close to each other on the continuum in cases where they are not sure about the goods and services mix related to their business concept or if they want to explore more or different ideas. For example, if they have an idea for a pure good, they could explore the possibility of providing accompanying services. In this case, they could use Attribute Listing with A Fresh View or Rich Pictures. They could also choose to utilize Reversal with A Fresh View or Rich Pictures. Likewise, if they want to consider accompanying goods for a pure service idea, they can use Wishful Thinking with either A Fresh View or Rich Pictures, or they could use What-If Analysis with A Fresh View or Rich Pictures to generate more and often better ideas.

Students will naturally be more attracted to certain design methods over others, depending on how they think and learn. For example, visual learners usually prefer the Rich Pictures method. It is best to introduce all of the methods to the students and allow them to choose the one(s) they wish to use. Instructors can even engage students in practice exercises, so they have more information and experience using these methods. Some good practice exercises include having students think of ideas on how to improve different aspects of university life such as their textbook, the parking situation at your university, your classroom set-up and resources, social life at your university, the university's website, or fundraising ideas for a student club.

REFERENCES

Amabile, T.M. (1996). Creativity in context, Westview Press, Boulder, CO.

- Anderson, N., Potočnik, K. and Zhou, J. (2014). Innovation and creativity in organizations: A state of the science review, prospective commentary, and guiding framework, *Journal of Management*, 40 (5), 1297-1333.
- Archer. L. B. (1965). Systematic methods for designers. London: Council for Industrial Design.
- Autio, E., Keeley, R. H., Klofsten, M., & Ulfstedt, T. (1997). Entrepreneurial intent among students: testing an intent model in Asia, Scandinavia and USA, *Frontiers of Entrepreneurship Research*, 133-147.
- Batey, M., & Furnham, A. (2008). The relationship between measures of creativity and schizotypy. *Personality and Individual Differences*, 45, 816-821.
- Berglund, H. and Wennberg, K. (2006), Creativity among entrepreneurship students: comparing engineering and business education, *International Journal of Continuing Engineering Education*, *16* (5), 366-79.
- Bowen, E., Siehl, C. and Schneider, B. (1989). A framework for analyzing customer service orientations in manufacturing, *Academy of Management Review*, 14, (1), 75–95.
- Brown, T. (2008). Design thinking. Harvard Business Review, June edition.
- Chase, R.B. (1981). The customer contact approach to services: theoretical bases and practical extensions, *Operations Research*, 29, (4), 698–706.
- Couger, D. J., Higgins L. F., and Mcintyre s. C. (1993). (Un)Structured creativity in information systems organisation, *MIS Quarterly*, 281-295.
- Davies, A. (2003). Are firms moving downstream into high-value services? in Tidd, J. and Hull F.M. (Eds.): Service Innovation, Series on Technology Management, Vol. 9, Imperial College Press, London.
- Dorst, Kees; Cross, Nigel (2001). "Creativity in the design process: Co-evolution of problem-solution." *Design Studies*, 22 (5), 425–437.
- Dyer, B. (2015). Why creativity is absolutely crucial in the workplace, Fortune Magazine.
- Fayolle, A., Gailly, B., & Lassas-Clerc, N. (2006). Effect and counter-effect of entrepreneurship education and social context on student's intentions. *Estudios De Economia Aplicada*, 24(2), 509–523.
- Franke, N., & Lüthje, C. (2004). Entrepreneurial intentions of business students—a benchmarking study. International Journal of Innovation and Technology Management, 1, 269-288.
- Fretschner, M. and Weber S. (2013). Measuring and understanding the effects of entrepreneurial awareness education, *Journal of Small Business Management*, 51 (3), 410-428.
- Garavan, T.N. & O'Cinneide, B. (1994). Entrepreneurship education and training programmes: A review and evaluation-Part 1. *Journal of European Industrial Training*, 18(8), 3-12.
- Gebauer, H. (2008). Identifying service strategies in product manufacturing companies by exploring environmentstrategy configurations, *Industrial Marketing Management*, 37 (3), 278–291.
- Glen, R., Suciu, C., and Baughn, C. (2014). The need for design thinking in business schools: A review, *Academy of Management Learning & Education, 13* (4), 653-667.
- Glennon, J., Albright, L., and Owens, W. (1966). A catalog of life history items. GreensboroN.C.: The Richardson Foundation.
- Gundry, L. and Kickul, J. (1996). Flights of imagination: fostering creativity through experiential learning, *Simulation Gaming*, 27, 334-49.
- Heye, D. (2006). Creativity and innovation: Two key characteristics of the successful 21st-century information professional, *Business Information Review*, 23, 252 257.
- Hills, G.E. (1988). Variations in university entrepreneurship education: an empirical study of an evolving field, *Journal of Business Venturing*, 3 (3), 109-22.
- Honig, B. (2004). Entrepreneurship education: Toward a model of contingency-based business planning. Academy of Management Learning and Education, 3(3), 258–273.
- Johannisson, B., Landstrom, H., and Rosenberg, J. (1998). University training for entrepreneurship an action frame, *European Journal of Engineering Education*, 4, 477-496.
- Lee, S.M., Chang, D., & Lim, S.-B. (2005). Impact of entrepreneurship education: A comparative study of the U.S. and Korea. *International Entrepreneurship and Management Journal*, *1*, 27–43.

- Liñán, F. (2008). Skill and value perceptions: How do they affect entrepreneurial intentions? *International Entrepreneurship and Management Journal*, 4(3), 257–272.
- Luca, M. and Cazan, A. (2011). Involvement in entrepreneurial training and personality, *Procedia: Social & Behavioral Sciences, 30,* 1251-1256.
- Martin Jr., C.R. and Horne, D.A. (1992). Restructuring towards a service orientation: The strategic challenges, International Journal of Service Industry Management, 3 (1), 25–38.
- Mattimore, B.W. (1995), Eureka! How to invent a new product, The Futurist, 29(2), 34.
- Mathieu, V. (2001). Product services: from a service supporting the product to a service supporting the client, *Journal of Business and Industrial Marketing*, 16, (1), 39–58.
- Michalko, M. (2006). *Thinkertoys: A Handbook of Creative-Thinking Techniques*, 2nd Edition, Ten Speed Press, Toronto.
- McFadzean, E. (1998). Enhancing creative thinking within organizations, Management Decision, 36(5), 309-315.
- Morgan, M. (1993). Creating workforce innovation, Business and Professional Publishing.
- Nystrom, H. (1993). Creativity and entrepreneurship, Creativity and Innovation Management, 2 (4)4, 237-42.
- Oliva, R. and Kallenberg, R. (2003). Managing the transition from products to services, *International Journal of* Service Industry Management, 14 (2), 160–172.
- Packham, G., Jones, P., Miller, C., Pickernell, D., & Thomas, B. (2010). Attitudes towards entrepreneurship education: A comparative analysis. *Education & Training*, *52*, 568-586.
- Proctor, T., Hua Tan, K. and Fuse, K., (2004). Cracking the incremental paradigm of Japanese creativity, *Creativity* and Innovation Management, 13(4), 207-215.
- Rodrigues, R.G., Dinis, A., do Paço, A., Ferreira, J., & Raposo, M. (2012). The effect of an entrepreneurial training programme on entrepreneurial traits and intention of secondary students. In T. Burger-Helmche (Ed.), *Entrepreneurship–Born, Made and Educated*, 77–92). Rijeka, Croatia: InTech.
- Schwarz, E. J., Wdowiak, M. A., Almer-Jarz, D. A., & Breitenecker, R. J. (2009). The effects of attitudes and perceived environment conditions on students' entrepreneurial intent: An Austrian perspective. *Education* & *Training*, 51, 272-291.
- Simon, H. (1969). The sciences of artificial. Cambridge: MIT Press.
- Sloane, P. (2006). The Leader's Guide to Lateral Thinking Skills: Unlocking the Creativity and Innovation in You and Your Team, Kogan Page Limited.
- Smolensky, E. D., and Kleiner, B. H. (1995). How to train people to think more creatively, *Management Development Review*, 8 (6), 28–33.
- Timmons, J. (1978). Characteristics and role demands of entrepreneurship, *American Journal of Small Business, 3*, 5-17.
- Ward, T.B. (2004). Cognition, creativity, and entrepreneurship, Journal of Business Venturing, 19, 173-88.
- Ward, A. (2005). An integrated model of entrepreneurship and intrapreneurship. Retrieved January 18, 2007.
- Wilken, P. (1979). Entrepreneurship: A comparative historical study. Norwood, NJ: Ablex.
- Winslow, E.K. and Solomon, G.T. (1987). Entrepreneurs are more than non-conformists: they are mildly sociopathic, *Journal of Creative Behavior*, 21 (3), 202-13.
- Vandermerwe, S. and Rada, J. (1988). Servitization of business: adding value by adding services, *European Management Journal*, 6, (4), 314–324.
- Visser, W. (2006). The Cognitive Artifacts of Designing, Lawrence Erlbaum Associates.
- Youndt, M.A., Subramaniam, M., & Snell, S.A. (2004). Intellectual capital profiles: An examination of investment and returns. *Journal of Management Studies*, *41*(2), 335–361.

HOW DO STUDENTS USE ONLINE INTERACTIVE SOFTWARE? EVIDENCE FROM A PRINCIPLES OF MICROECONOMICS COURSE

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ABSTRACT

An increasing number of courses use some type of supplementary computer assisted software. There is mixed evidence supporting the effectiveness of this type of software in improving student learning. After laying out the monitoring tools available for instructors, this paper examines student usage of online resources in sections of a principles of microeconomics course. Although no direct link between exam scores and software usage was found, considerable variation in how students use the software was observed, and some of this variation can be related to student attributes such as GPA and gender.

Keywords: Principles of Economics, Aplia, Mindtap, online homework

INTRODUCTION

Textbook publishing companies continue to expand their offerings of automated homework software (Bojinova, 2012; Dolar, 2018). Some of these new tools allow instructors to track student activity during the academic term, using a variety of metrics. This paper takes advantage of a rich set of data to analyze how students at a regional comprehensive public university used the online resources in a principles of microeconomics course. This paper provides a description of the tools available for instructors to track student activity and then reports on how students used the software. Second, it explores how usage of the software related to student GPA, gender, classification, and major. Additionally, it provides an examination of how students used the opportunity to complete multiple attempts of the same question, how early students started homework assignments, and how this usage was related to student attributes and performance in the course. Finally, there is an exploration of how both homework grades and the time spent on assignments related to performance on a comprehensive final exam.

To preview the results, there is substantial variation in how students used the available software; some students spend considerable time accessing these resources, while others only log in immediately before an assignment is due and spend very little time completing assignments. On average, students spend more time completing the first attempt of a question, when given multiple attempts at the same concept. Additionally, higher cumulative GPA is related to more time spent completing homework using the software, and on average female students spend more time completing the online homework assignments than their male counterparts. On average, male students also started their homework assignments half a day later. Finally, once controlling for student specific attributes such as cumulative GPA and classification status, there is no evidence that final exam grades were related to either time or performance on online homework assignments.

LITERATURE REVIEW

Much of the research on the use of online homework systems has used an experimental approach, where students assigned to sections using a computer automated homework system were considered to be in the treatment group. Allgood, Walstad, and Siegfried (2015) noted that measuring the effectiveness of new teaching methods can be difficult for several well-understood reasons. These complications include non-random student assignment to treatment and control groups, and student grade targeting in response to new methods of instruction, whereby student reduce study time in response to effective teaching innovations (Allgood et al., 2015). Regardless of these difficulties, attempts have been made to assess the effectiveness of automated online software, with decidedly mixed results.

Collins, Deck, and McCrickard (2008) examined performance on final exams in principles of microeconomics courses at Bellarmine University after instructors adopted Aplia, an online automated homework system. They found that grades on the online assignments were positively related to final exam grades, at this small private university. Emerson and Mencken (2011) found that student grades on a common portion of a principles of microeconomics final exam were higher in sections that had graded Aplia assignments, as opposed to a control group where the assignments were not counted toward the course grade. Additionally, Nguyen and Trimarchi (2010) found statistically significantly higher grades in principles of economics course sections that used either Aplia or MyEconLab (Pearson's computer automated homework system), as compared to sections not using either of the software tools.

However, not all studies have found measurable benefits from using these types of software. Kennelly, Considine, and Flannery (2011) compared student scores on the Test of Understanding in College Economics (TUCE) in principles of economics sections using traditional hand-graded paper homework assignments versus sections using Aplia. They find no evidence of a difference in performance on the TUCE exam, for sections that used traditional instructor-graded paper assignments versus automated online homework. Also using the TUCE exam, Lee, Courtney, and Balassi (2010) found no improvement in scores after moving from traditional homework to Aplia, in a sample of principles of microeconomics courses. However, they do report that 90 percent of students reported that the software had a positive impact on their understanding of course material, and 73 percent of students reported preferring Aplia to traditional homework. Aljamal, Cader, Chiemeke, and Speece (2015) compare sections using Aplia to sections with no homework at all, in the American University in Kuwait. They find no difference in scores on the TUCE for sections using Aplia.

Additionally, some research has focused on specific elements of the software design, and how students respond to these elements. Rhodes and Sarbaum (2015) investigated how students responded to the option of completing multiple attempts in MyEconLab homework assignments. One proposed advantage of computer automated software is that students get instantaneous feedback on their mastery of the material and some software allows for them to make multiple attempts to apply the same type of problem (Parker & Loudon, 2012). There is a large literature suggesting that this type of formative assessment, where students receive feedback on their work throughout the learning process, can aid in student learning (Hattie & Timperley, 2007). Comparing two separate summer sessions, Rhodes and Sarbaum found evidence that when students are given multiple attempts at homework they guessed on the first attempt and tended to earn higher homework grades without increasing learning, as compared to the students only

given one opportunity to answer questions. They noted that instructors need to be aware of students incentive to 'game the system' when designing their courses.

Caplan and Gilbert (2008) also studied student behavior, but instead focused on when students started Aplia assignments. In an intermediate microeconomics class, they find that students that started on the assignments earlier earned higher average scores on these assignments. Caplan and Gilbert controlled for student specific GPA and credits earned, and not only provided an early attempt at examining how students actually use the computer automated software but also showed how instructors can construct a database to study how students use this software.

However, as previously stated, most research has used an experimental approach, where the performance of students using the software is compared to a control group where the software is not used. Increasingly, software allows instructors to observe very detailed studentspecific usage, and could provide insight into why the software may or may not increase student learning. For example, if students are not spending significant amounts of time engaging with the software, it would not be surprising if there are no measurable increases in student learning after adoption. Additionally, if students simply 'game' the assignments in their first attempts, the software may not lead to increased student learning and better performance on exams. It is also possible that software has heterogeneous effects on student performance; some students might benefit from the immediate feedback of the automated systems and the opportunity to work through multiple attempts, while other students may perform poorly if they discover that they can 'game the system' with very little effort put into the assignments.

BACKGROUND AND COURSE SETUP

The course sections under study are eight principles of microeconomics sections delivered by one instructor over the course of a two-year period in spring and fall semesters at a regional comprehensive public university in East Texas. Each section consisted of between 49 and 65 students, and met face-to-face either two or three times per-week for a total of 150 minutes per-week. Students took three regular in-class exams, and a cumulative final exam at the end of a 15 week semester. These exams were standard multiple choice tests taken on paper and with closed notes. No substantial changes to the course structure were made over this two-year period.

Students were required to purchase access to Mindtap, a supplementary online course tool developed by Cengage Learning.¹ Mindtap contains access to an online textbook, supplemental practice problems and chapter reviews, videos, flashcards, and required homework assignments. The course was set up so that students could access all available materials from the online software at any time, but that only eleven homework assignments would count toward their course grades. Students were given direct links to these assignments, in their course management system. The required homework assignments were based upon the Aplia software, an automated online homework system first developed by the economist Paul Romer in 2000,

¹ In fact, all instructors in the department require purchase of Mindtap in both principles of microeconomics and macroeconomics courses. In addition, a common text is used, so all sections have the exact same textbook/software requirements.

and available for use starting in 2002 (Kennelly et al., 2011). Aplia was later purchased by Cengage Learning in $2007.^2$

During the course of the term, students were assigned eleven graded assignments, with the top ten scores counting toward their final course grades. Overall, the graded homework assignments combined to be approximately 20 percent of the final course grade. The Aplia homework assignments were specifically tailored for the chosen textbook, and the assignments were designed so students worked through interactive microeconomics problems. A typical assignment required students to fill in the blanks for terms, complete calculations on a microeconomic concept, and construct and/or manipulate graphs. Once satisfied with their responses, students could submit the problem and receive instantaneous feedback about their answers. This feedback not only showed the student which questions they got right and wrong, but provided a detailed explanation for each of the problems. Subsequently, students could choose to 'try another version' of a slightly different problem on the same concept. In this way, the software allowed for a formative assessment for the student, and immediate feedback without the need of any interaction from the instructor. Students had a maximum of three attempts for each of the problems within each assignment. The students' grades were based on the highest score from the maximum of the three attempts of each problem.

According to Cengage Learning, the Mindtap software tracked student activity using Google Analytics and other tools, although certain user-installed browser extensions can block this tracking (Cengage, 2019).³ Cengage notes that these browser extensions could possibly bias downward actual student usage, although it is unclear why a particular student would only sometimes use one of these browser extensions. Additionally, because Mindtap and Aplia were originally two separate software systems, they track user progress in the course in slightly different ways. Mindtap activity could be associated with students using a variety of learning tools, including the online textbook, chapter reviews, flashcards, etc., whereas time spent on Aplia assignments will only correspond to the time spent on the graded homework assignments.

DATA DESCRIPTION

In total, 459 students enrolled in these eight sections during this two-year period. In order to only track student behavior of students engaged throughout the entire semester, 46 students were removed from the sample because they either withdrew from the course or did not take the final exam. Additionally, one student was removed from the sample because no data was collected about login activity, likely because of the use of an ad-blocking browser extension. Summary statistics are available in Table 1 for the remaining 412 students in the sample. After receiving IRB exemption, student specific characteristic were merged with information about student software usage.

In terms of student profile, the typical principles of microeconomics student is a full-time sophomore business major, with slightly more than 50 percent of the students being male. From Table 1 it is clear that there was substantial variation in how extensively students accessed the

² This purchase did lead to some confusion for students. Students completed Aplia assignments on the Mindtap platform, which was developed and sold to them by Cengage Learning.

³ One student in the two-year period likely used one of these browser extensions, as Mindtap collected no information about her login behavior, even though she had recorded grades for each assignment.

Mindtap system. On average students spent approximately 21 hours in Mindtap during the term, and logged in a few times per week. However, some students spent substantially more time logged into the system, with one student recording 130 hours of time in Mindtap during the 15 week term. It should be noted that approximately 10 percent of the students initially enrolled in the course either withdrew or stopped attending during the term, which has substantially affected some of the averages in Table 1. For example, the exam and assignment grade averages, number of logins, and minutes spent in Mindtap would all be lower if these excluded students were added to the sample. These students are excluded to give representation of time spent during an entire term of usage.

Table 1 DESCRIPTIVE STATISTICS FROM MINDTAP								
	Observations	Mean	Std. Dev.	Median	Min	Max		
Minutes in Mindtap	412	1258.30	929.33	1047	49	7945		
Number of logins	412	35.09	17.24	32	6	144		
Aplia #1 grade	412	78.18	28.01	89.08	0	100		
Aplia #2 grade	412	86.38	24.76	95.17	0	100		
Aplia #3 grade	412	74.79	26.83	83.50	0	100		
Aplia #4 grade	412	86.66	27.65	98.05	0	100		
Aplia #5 grade	412	80.64	25.23	88.83	0	100		
Aplia #6 grade	412	79.43	29.19	91.67	0	100		
Aplia #7 grade	412	75.75	29.75	86.83	0	100		
Aplia #8 grade	412	68.33	30.14	79.67	0	100		
Aplia #9 grade	412	77.52	31.90	91.75	0	100		
Aplia #10 grade	412	77.70	31.91	91.02	0	100		
Aplia #11 grade	412	77.91	31.04	89.67	0	100		
Regular exams	412	72.86	13.37	73.54	36.67	100		
Final exam	412	71.40	13.97	72.37	27.63	97.37		
Cumulative GPA	412	2.90	0.66	2.90	0.43	4.00		
Credits in term	412	13.17	2.35	13.00	6	19		
Male (yes=1)	412	0.56			0	1		
Freshman (yes=1)	412	0.10			0	1		
Sophomore (yes=1)	412	0.58			0	1		
Junior (yes=1)	412	0.24			0	1		
Senior (yes=1)	412	0.08			0	1		
Business major (yes=1)	412	0.86			0	1		

Table 2 presents a correlation matrix for selected variables. For simplicity of presentation, homework assignments are averaged by student into one *homework total* variable.

Interestingly, scores on Aplia assignments were positively correlated with exam performance, but time spent in the Mindtap software as measured by *mindtap minutes* and *number of logins* were not strongly related to scores on exams. The strongest correlations were exam scores. Students' performance on regular exams were positively related to their scores on the cumulative final exam. Unsurprisingly a student's cumulative GPA was also highly correlated with exam performance.

Table 2 CORRELATION COEFFICIENTS OF SELECTED VARIABLES									
	Mindtap minutes	Logins	Homework total	Regular Exam	Final Exam	Cum. GPA	Credits	Male	Aplia first*
Mindtap minutes	1.00								
Logins	0.64	1.00							
Homework total	0.26	0.23	1.00						
Regular Exam	-0.11	-0.05	0.44	1.00					
Final Exam	-0.07	-0.05	0.44	0.81	1.00				
Cum. GPA	0.03	0.04	0.62	0.75	0.73	1.00			
Credits	-0.04	0.02	0.11	0.16	0.15	0.18	1.00		
Male	-0.19	-0.11	-0.13	-0.03	-0.04	-0.22	0.02	1.00	
Aplia first*	0.71	0.26	0.47	0.17	0.19	0.28	0.07	-0.19	1.00
Aplia multiple*	0.56	0.25	0.38	-0.09	-0.02	0.07	0.00	-0.26	0.52
*These completions are only measured for the second of the two years, as described below.									

*These correlations are only measured for the second of the two years, as described below.

As previously mentioned, because Aplia and Mindtap were originally two separate software systems, they collect slightly different data on student usage. One shortcoming of using Mindtap's tracking time and login information is that one cannot observe what tools students are using in the software. To add an additional complication, an unknown number of students either purchased a physical copy of the textbook or downloaded an offline version of the textbook to their phone or tablet using an application provided by Cengage. Some variation in Mindtap access time could be due to the different ways students accessed the textbook, because some students use Mindtap to access the text and other do not. However, the eleven Aplia homework assignments could only be completed online and the software collected very detailed information about student activity on these assignments. Unfortunately, only the second of the two years of data was available in Aplia, for a total of 210 students. Aplia tracked information about when students first accessed each graded homework assignment and how much time they spent on every single portion of each Aplia assignment.

The last two rows of Table 2 provide correlations for the time spent on the first and subsequent (multiple) attempts on the homework assignments, and Table 3 provides some of the summary statistics for this second source of student access data. The total time in minutes spent on graded Aplia homework assignments is *Aplia first* plus *Aplia multiple*, while *non-Aplia time* is any remaining minutes spent in Mindtap not related to the graded Mindtap assignments, for this subset of 210 students. As with the Mindtap data, there is substantial variation by student.

On average, students spend more time on the first attempt than on the additional attempts allowed by the homework system. There is substantial variation, as one student spent no time at all on additional attempts, while others spent more time on these multiple attempts than other students spent on all available activities in the entire Mindtap system. From an instructor's perspective, one concern with adopting a homework system with multiple attempts is that students might spend little time on the first attempt and only use this attempt to reveal the answers to the question. Students could then mimic the answer from the first attempt to maximize scores on the remaining two attempts, without actually engaging with the concept. At least in this sample, students spend more time on average on the first attempt, which suggests that most students are not 'gaming the system' in this way.

Aplia also allows for instructors to track when students log in to each homework assignment. The various *start* variables correspond to number of days before the deadline at which students first accessed the graded homework assignment. On average, students tended to first open the graded homework assignments a few days before each was due. Some students waited until only minutes before the assignment was due to first open the assignment, and some students never opened assignments, as the number of observations for each assignment is less than 210, which is the number of students finishing the course during these two terms. It should be noted that a handful of students worked ahead substantially, with one student starting the last assignment more than two months before its due date. Although not included in Table 3, exam scores, Aplia scores, and student characteristics are similar in this one-year sub-sample, as compared to the full two-year sample as described in Table 1.

Table 3 ADDITIONAL DESCRIPTIVE STATISTICS FROM APLIA								
	Observations	Mean	Median	Std. Dev.	Min	Max		
Aplia first	210	396.89	361.97	197.81	44.37175	1294.82		
Aplia multiple	210	142.95	121.36	100.45	0	637.16		
Non-Aplia time	210	654.90	500.22	587.81	54.82	4741.70		
Start average	210	2.33	1.88	2.40	0.05	28.96		
Start Aplia 1	195	2.71	1.52	2.71	0.00	12.05		
Start Aplia 2	198	2.18	1.35	2.24	0.03	11.25		
Start Aplia 3	190	2.25	1.36	2.09	0.01	11.29		
Start Aplia 4	196	3.49	2.15	3.63	0.02	22.31		
Start Aplia 5	193	1.68	1.11	2.09	0.02	15.15		
Start Aplia 6	188	1.87	1.10	2.65	0.00	22.30		
Start Aplia 7	185	1.89	1.04	3.14	0.01	24.01		
Start Aplia 8	197	2.16	1.39	4.20	0.01	51.27		
Start Aplia 9	184	2.87	1.14	4.50	0.01	43.01		
Start Aplia 10	181	2.09	1.05	3.87	0.00	34.41		
Start Aplia 11	187	3.40	2.04	6.61	0.02	78.08		

DETERMINANTS OF STUDENT SOFTWARE USAGE

As previously mentioned, there is substantial variation in how students in the sample used the software. To investigate what factors are related to student time spent using the software, several linear regressions were estimated, with the dependent variables being various measures of software usage. Because there are a handful of students with substantially above average time spent using the software, the dependent variables are transformed using the natural log function to reduce the impact of these outliers. Table 4 presents the results of these regressions, for both the full two-year sample and the subset of data where more detailed Aplia usage was available. Columns 1 and 2 display the results of models of Mindtap access as a function of student specific characteristics. The only statistically significant coefficient from these first models is gender; as compared to female students, males logged on to Mindtap less frequently and for less total time during the semester. Again, estimating time spent on the Mindtap system is made more difficult because of it is unknown if some students accessed the textbook outside of the software.

Table 4							
REGRESSION R	ESULTS FOR SO	OFTWARE USA	GE				
	(1)	(2)	(3)	(4)	(5)		
Variables	ln(Mindtap	ln(Logins)	ln(Aplia first)	ln(Aplia multiple)	ln(Average Start)		
	minutes)						
G GD (0.0833	0.0594	0.241***	0.206**	0.434***		
Cum. GPA	(0.0620)	(0.0444)	(0.0670)	(0.103)	(0.0920)		
Cuadita	-0.0140	0.00523	0.0141	0.0126	0.0184		
Credits	(0.0140)	(0.0107)	(0.0153)	(0.0218)	(0.0220)		
Mal. (-0.233***	-0.0771*	-0.159**	-0.419***	-0.168		
Male (yes=1)	(0.0686)	(0.0465)	(0.0690)	(0.106)	(0.114)		
Freshman	0.112	0.0441	-0.0425	-0.220	-0.0846		
(yes=1)	(0.106)	(0.0785)	(0.103)	(0.189)	(0.144)		
T (1)	-0.0128	0.0546	0.0862	0.0889	0.0771		
Jumor (yes=1)	(0.0825)	(0.0553)	(0.0864)	(0.143)	(0.132)		
Series (ves-1)	0.0680	-0.0588	-0.0154	-0.0901	0.0455		
Senior (yes=1)	(0.141)	(0.0837)	(0.175)	(0.197)	(0.219)		
Dusing (mag. 1)	0.0389	-0.0087	0.0319	0.0460	0.2630*		
Business (yes=1)	(0.0956)	(0.0604)	(0.0980)	(0.158)	(0.159)		
Constant	6.951***	3.250***	5.029***	4.162***	-1.100***		
Constant	(0.248)	(0.190)	(0.289)	(0.415)	(0.393)		
Observations	412	412	210	209†	210		
R-squared	0.048	0.023	0.136	0.117	0.159		
Robust standard er	rors in parentheses						
*** p<0.01, ** p<0	0.05, * p<0.1						
† One student did r	not make any atten	pts beyond the fir	rst.				

Columns 3-5 display the results of estimated linear regressions related to Aplia homework access. The dependent variable of interest are respectively the natural log of total minutes spent on the first attempt on all homework assignments in Aplia, minutes spent on additional homework attempts, and average time before the deadline when the student started the homework. Using R-squared as a guide, these models explain more of the variation in student

access to only the Aplia homework than the models estimating Mindtap access. Additionally, for this sample, a student's cumulative GPA is estimated to be related to Aplia homework access. With at least 95 percent confidence, it is estimated that students with higher GPAs spent more time on their homework attempts and started the assignments earlier, on average. As with Mindtap access, female students are estimated to have spent more time on the online homework, on average. In no models is there evidence that class status, number of credits taken during the term, or whether the student was a business major was related to software usage, at normal levels of statistical significance.

RELATIONSHIP OF SOFTWARE USAGE TO EXAM GRADES

One final area of investigation is the link between exam performance and software usage. Table 5 contains the results of linear regressions with the dependent variable measuring percentage score on a comprehensive final exam. Models in columns 1 and 3 estimate final exam scores based upon student characteristics, but without independent variables related to software usage. Column 1 represents the full two-year sample, while column 3 only includes the subset of students with available information on Aplia usage. Unsurprisingly, students with higher cumulative GPAs are estimated to have higher average scores on the final exam. There is also some evidence that, all else equal, freshman score slightly lower than sophomores, which is the classification dummy variable that was dropped for comparison. Males are estimated to have higher final exam scores in the model, but careful interpretation must be used to interpret this finding. In fact, females have higher exam scores overall in the sample, on average. However, they also have higher cumulative GPAs, which is strongly related to exam scores. Once correcting for GPA and other characteristics, a male student with the same GPA and other characteristics would be estimated to have a slightly higher final exam score.

Columns 2, 4, and 5 display estimates for models that include various measures of student software usage. *homework total* is a student's online homework average, and the other additional variables are the previously described software access variables. None of these variable coefficients are statistically different than zero, with the exception of the number of logins to Mindtap. Somewhat counterintuitively, an increase in logins is estimated to be negatively correlated to a lower final exam score, on average, although the addition of software usage variables add very little explanation of variation in final exam scores. There is a substantial literature in educational psychology that suggests that spaced learning, or small amounts of regular time spent learning, contributes to more learning that a few long study sessions (Kang, 2016). Unfortunately, Mindtap does not report whether the logins are spaced out, or whether multiple logins are occurring over short durations of time. It is possible that many of these logins are occurring right before an exam.

Recall from Table 2, there was some positive correlation between *homework total* and exam scores. However, once one controls for GPA, there is no estimated relationship between Aplia homework scores and final exam grades. One interpretation of this finding is that high GPA students exert more effort on their homework, this effort helps them to learn the material, and they therefore do better on exams. However, it is difficult to disentangle the direction of causality. A high GPA student may simply find the homework easier to do and it does not help to increase understanding of the topic. An additional interpretation of the results is that once one knows a student's GPA, the time spent on homework is redundant in explaining her performance on exams.

Table 5 REGRESSION RESUL'	TS FOR FINAL E	XAM GRADES			
	(1)	(2)	(3)	(4)	(5)
VARIABLES	Final exam	Final exam	Final exam	Final exam	Final exam
Homework total		-0.0121		-0.0766	-0.0772
		(0.0441)		(0.0755)	(0.0769)
ln(Mindtap minutes)		0.0609			
		(0.800)			
ln(Mindtap logins)		-2.635**			
		(1.109)			
ln(Aplia first)				0.693	0.704
				(1.822)	(1.844)
ln(Aplia multiple)				0.398	0.398
				(1.285)	(1.288)
ln(Average Start)					0.0265
					(0.191)
Cum. GPA	15.96***	16.31***	16.92***	18.16***	18.15***
	(0.873)	(0.957)	(1.236)	(1.182)	(1.182)
Credits	0.0772	0.0926	-0.166	-0.151	-0.152
	(0.175)	(0.179)	(0.239)	(0.243)	(0.245)
Male (yes=1)	3.570***	3.386***	3.557***	3.605***	3.625***
	(0.890)	(0.922)	(1.192)	(1.343)	(1.388)
Freshman (yes=1)	-3.211**	-3.149*	-4.512***	-4.761***	-4.746***
	(1.623)	(1.630)	(1.603)	(1.658)	(1.659)
Junior (yes=1)	-0.292	-0.143	-0.994	-0.936	-0.933
	(1.128)	(1.137)	(1.626)	(1.563)	(1.571)
Senior (yes=1)	0.0292	-0.175	1.448	0.904	0.902
	(1.956)	(1.865)	(2.812)	(2.812)	(2.823)
Business (yes=1)	0.519	0.506	-1.953	-2.136	-2.148
	(1.259)	(1.249)	(1.752)	(1.753)	(1.763)
Constant	22.07***	30.56***	26.24***	22.57**	22.55**
	(3.425)	(6.197)	(4.791)	(8.988)	(9.038)
Observations	412	412	210	209†	209†
R-squared	0.560	0.568	0.600	0.613	0.613
Robust standard errors in	parentheses				

*** p<0.01, ** p<0.05, * p<0.1† One student did not make any attempts beyond the first.
CONCLUSION

This paper has shown how instructors can track students' automated software usage, and has also linked this usage to student characteristics and performance on exams for a sample of students in a principles of microeconomics course. In this sample, substantial variation exists in the amount of time students spent engaging with the software. Although final exam grades do not appear to be related to software usage once other factors are controlled for in this sample, there are clear and systematic differences in student usage of the software. Specifically, female students spend more time on the assignments, and there is a positive relationship between GPA and both time spent on homework and how early students begin assignments, on average. Unfortunately, the sample size of this study is too small to further narrow the detailed student access behavior at a more disaggregated level.

This study falls into the broad area of 'learning analytics', a concepts defined as "the measurement, collection, analysis, and reporting of data about learners and their contexts for purposes of understanding and optimizing learning and the environment in which it occurs" (Leitner, Khalil, & Ebner, 2017). There are several potential avenues for using data from automated homework systems to make changes in the learning environment to improve student learning. Ideally, instructors may be able to identify students that are not sufficiently engaged in the course material. Currently, Cengage provides total time and number of logins to Mindtap as the key element of measurement of student engagement for instructors. Unfortunately, because of the offline mechanisms available for students to access the textbook, these measures may not be the most accurate in determining actual student engagement. Metrics from Aplia, such as the time spent on various homework attempts, have not been made easy for instructors to access. However, these metrics may be more useful in understanding student engagement. In the future, software creators may wish to consider making detailed student access data more easily viewable for instructors.

Additionally, future work could link specific assignments to specific concepts on exams, to isolate which assignments are most linked to important content areas of the course. As publishing companies continue to collect 'big data' on student behavior, it may be possible to more carefully study the link between homework system usage and student learning over large samples of students. The literature on the efficacy of these types of software has been mixed. However, by examining detailed student usage of the software, instructors can now study how students use the software in very fine-grained detail. Understanding student behavior at this detail may be the key to determining whether software improves student learning. If students are spending very little time engaged with the software it would be unsurprising if there was no associated increase in student learning. Perhaps there is heterogeneity in effectiveness of assignments, and only some of the assignments are related to improvement in student learning. There may even be heterogeneity in effectiveness of software among students. Additionally, some systems may be 'gamed' by students looking to maximize grades with minimum effort. Resolving these issues may be the key to determining whether the software is effective.

As previously mentioned, there is some evidence that providing students feedback on their progress during a course can promote student learning (Hattie & Timperley, 2007). This type of continuous feedback has traditionally been very costly, in terms of instructor time. As an increasing number of courses use some sort of supplementary computer assisted software to provide students instantaneous input on their work. Engagement information can be provided directly to students either by the software or instructor. Students may be unaware of the amount of time that they need to spend on homework and placing their usage in context may be helpful. Additionally, the software could be more fully personalized for each student, and could be designed to provide different assessments for each student, depending upon the specific needs of that individual student.

REFERENCES

- Aljamal, A., Cader, H., Chiemeke, C., & Speece, M. (2015). Empirical assessment of e-learning on performance in principles of economics. *International Review of Economics Education*, 18, 37-48.
- Allgood, S., Walstad, W. B., & Siegfried, J. J. (2015). Research on teaching economics to undergraduates. *Journal* of *Economic Literature*, 53(2), 285-325.
- Bojinova, E. D. (2012). Enhancing student performance through web-based interactive learning systems: a case study of MyEconLab. *The BRC Academy Journal of Education*, 2(1), 37-56.
- Caplan, A. J., & Gilbert, J. (2008). 'D'is for dilly-dally? Applied Economics Letters, 15(14), 1085-1088.
- Cengage (2019). Instructor help. https://www.cengage.com/help/mindtap/mt-instructor/viewing-analytics.html
- Collins, D., Deck, A., & McCrickard, M. (2008). Computer aided instruction: A study of student evaluations and academic performance. *Journal of College Teaching & Learning*, 5(11), 49-58.
- Dolar, V. (2018). Does instant feedback on online homework assignments improve student learning in introductory economics classes? *Journal of Economics and Economic Education Research*, 19(2), 1-15.
- Emerson, T. L., & Mencken, K. D. (2011). Homework: To require or not? Online graded homework and student achievement. *Perspectives on Economic Education Research*, 7(1), 20-42.
- Hattie, J., & Timperley, H. (2007). The power of feedback. Review of Educational Research, 77(1), 81-112.
- Kang, S. H. (2016). Spaced repetition promotes efficient and effective learning: policy implications for instruction. *Policy Insights from the Behavioral and Brain Sciences*, 3(1), 12-19.
- Kennelly, B., Considine, J., & Flannery, D. (2011). Online assignments in economics: A test of their effectiveness. *The Journal of Economic Education*, 42(2), 136-146.
- Lee, W., Courtney, R. H., & Balassi, S. J. (2010). Do online homework tools improve student results in principles of microeconomics courses? *American Economic Review*, 100(2), 283-86.
- Leitner, P., Khalil M., & Ebner, M. (2017). Learning analytics in higher education—a literature review. In A. Peña-Ayala (Ed.), *Learning analytics: Fundaments, applications, and trends* (1-23). New York: Springer.
- Nguyen, T., & Trimarchi, A. (2010). Active learning in introductory economics: do MyEconLab and Aplia make any difference? *International Journal for the Scholarship of Teaching and Learning*, 4(1), 1-18.
- Parker, L. L., & Loudon, G. M. (2012). Case study using online homework in undergraduate organic chemistry: Results and student attitudes. *Journal of Chemical Education*, 90(1), 37-44.
- Rhodes, M. T., & Sarbaum, J. K. (2015). Online homework management systems: should we allow multiple attempts? *The American Economist*, 60(2), 120-131.

REGAIN RELEVANCE IN A COST MANAGEMENT ACCOUNTING COURSE WITH SAP

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ABSTRACT

The objective of this paper is to describe the integration of SAP (Systems Application and Process), the leading ERP (enterprise system) software, in a cost management accounting course. SAP makes a useful vehicle for introducing cost management accounting students to integrated accounting system structure because it is based on 'best practice' in cost management system design. Thus, the conceptual framework underlying the financial modules of SAP provides a universal introduction to the use of accounting system structure to access, develop, and distribute information for decision support and performance evaluation for the organization's strategic management team.

INTRODUCTION

Evidence in the literature suggests that a gap exists between needed information technology (IT) skills and business education (Chandra et al 2006; Hayen et al. 2000). In particular, the increasingly widespread use of Enterprise software (ERP) in organizations has prompted educators to realize the need to introduce ERP software in the business curriculum (Gupta and Marshall 2010; Cannon et al. 2004). The objective of this paper is to describe the integration of SAP (Systems Application and Process), the leading ERP system, in a cost management accounting course.

It's important to note that the information technology (IT) learning objectives for cost management accounting students differs from the objectives for IT students. While the latter needs to understand the underlying configuration complexity of the system, a cost management student's important skills arise from a system 'user' perspective. Courses for IT students include technical skills such as the underlying configuration of an organization, or even creating an organization from scratch. But few cost management accountants will encounter a need for these skills. To be a power user, cost management accountants require an understanding of the system structure in the organization *as it exists* and an understanding of the conceptual framework on which the system is built. Cost management accountants need a clear understanding of how to create relevant master data, such as cost/profit centers and cost elements (accounts), and to access and distribute decision support and performance evaluation information to managers.

Little support for system understanding is provided in mainstream cost management textbooks. Evidence in the literature suggests that our textbooks continue to portray cost management accounting systems as they existed decades ago (see, for example, Chandra et al 2006). Informal surveys in my cost management classes suggests that many students view the topical coverage in mainstream cost management textbooks as a series of disjointed and

haphazard topics. Gupta and Marshall (2010), for example, find that current accounting textbooks focus on low-order skills and fail to address higher-order cognitive skills needed in today's practicing accountants, among which is the use of technology. Moreover, Fisher (2006) notes that significant changes have been made in management accounting practice but management accounting texts continue to present 'transaction-based' accounting systems rather than the holistic structure found in today's ERP systems which are designed to monitor an integrated organizational value chain (Johnson et al. 2004). David et al (2003) note that the conservative nature of publishers and the cost of integrating new material in texts inhibits wholesale changes in textbooks. Beyond the weaknesses in textbooks, cost management course structure seems similarly lacking. Cable et al (2009) argue that management accounting curricula fail to provide the IT skills needed to students to meet managers' needs for decision support. Ahadiat (2008) similarly proposes that revisions in curricula is need to better prepare accounting graduates for practice.

Overall, it is difficult for students to weave together a cohesive view of system structure, as present in ERP systems, based on our mainstream cost management textbooks and course content (Corbitt and Mensching 2000). Students continue to have difficulty applying the concepts they learn in a cost management course to the sophisticated systems they encounter after graduation unless cost management courses take up the challenge to introduce ERP to students. In my experience, former students with a good textbook understanding of cost management concepts find themselves baffled when they access the complex systems they find in their workplace (David et al. 2003). Unfortunately, as argued by Tatikonda (2004) current accounting education has become a roadblock to preparing management accountants for the workplace.

The SAP system provides an effective vehicle to introduce cost management accounting students to integrated accounting system structure because it is based on 'best practice' in cost management system design. Thus, the conceptual framework underlying the financial modules of SAP provides a universal introduction to the use of accounting system structure to access, develop, and distribute information for decision support and performance evaluation to the organization's strategic management team. System structure in SAP is not unique. Rather, it is representative of ERP system structure in general. Once students understand system structure in SAP, they can readily adapt to other ERP systems by simply learning the unique terminology in that system.

Classroom explanations of system design are inadequate to provide an understanding of the conceptual framework underlying an ERP system (Fedorowicz et al. 2004). Hands on experience with the system is needed to provide problem oriented learning (Winkleman and Leyh 2010). By activating classroom knowledge as students work on configuration problems on the SAP system, students acquire long term understanding of cost management concepts and system structure. Follow-ups with individual students after graduation and employer feedback indicate that students are better able to apply their conceptual body of cost accounting knowledge as a consequence of their exposure to 'big system' accounting on SAP.

BASICS OF COST MANAGEMENT COURSE DESIGN WITH SAP

The development of my cost management SAP exercises began with site visits to several local SAP user companies to discuss needed skills for new hires in cost management accounting roles. From these discussions, I developed a series of handouts, exercises, projects, and assessments, as described below.

In developing the course, my goal was to integrate cost management accounting concepts with hands-on business scenarios on the SAP system. Thus, concepts taught on the blackboard were concurrently illustrated and reinforced in SAP exercises (see, for example, McCombs and Sharifi, 2003). However, there is a pedagogical balance needed to ensure that CPA topics are effectively taught along side the higher-order understanding needed for the SAP system. Since much of the CPA exam is a textbook-based exam, many of the mechanical calculations found in textbooks will be needed by students for the CPA exam.

The sap system ships with a sample multinational organization called the IDES Company. It is designed for corporate training so it has been criticized for academic instruction (Johnson et al. 2004), but I have found the IDES company to be adequate to illustrate the fundamental organizational structure in a multi national company. It avoids the need to configure an entire organization from scratch by providing the structure for students to configure needed master data, such as cost centers, profit centers, cost elements (accounts), and other cost objects. Such master data creation is a routine task for cost management accountants and useful for system understanding.

LESSONS LEARNED

Instructor Support

While SAP itself provides extensive education classes for system users, direct education from SAP for many faculty is unlikely to be a viable option. The courses are quite expensive and require on-site attendance for several days. Moreover, the classes are intended to support business staff in specific business roles. These roles do not fit well into a course sequence for a cost management class. Substantial customization would be needed to adapt the content for the accounting classroom.

Support is also available from the SAP University Alliance (UA). The Alliance, begun in 2001, provides a range of support options on their web site. Even plug and play modules for various disciplines are available. Summer and Winter-break workshops sponsored by the UA are offered at several locations across the US and Canada. The workshops are typically several days in length (Becerra-Fernandez et al 2000).

A local SAP installation is not necessary to use the system (or even supported by SAP). University Competency Centers have been established across the US by the UA and provide reliable on-line access to the system.

Student Reactions

Students often resist the rather unyielding structure of a complex system like SAP. My experience, and evidence in the literature, suggests that accounting students are not used to technology (Chandra et al 2006). Cable et al (2009), for example notes that most accounting instruction is based on spreadsheets and paper and pencil exercises. Students in my cost management classes have had little experience with the methodical and careful procedures needed to master complex systems like SAP. In fact, many students have mentioned to me that learning the systematic *discipline* needed to be successful on a complex system, like SAP, is a valuable new skill that they haven't needed in prior education experiences.

Students also have difficulty linking textbook concepts to the practical environment in SAP. For example, since SAP reports don't present data in textbook format, applying even well understood tools like cost-volume-profit or tactical decision making to the SAP environment require students to apply critical thinking skills to interpret, analyze, and evaluate information. Pushing students to take advantage of learning opportunities without causing excessive frustration can sometimes be a difficult balance. I have often heard the frustrated comment, "can you just tell me what to do?"

Supervised time in the PC lab is needed to reduce the frustration that occurs when students lose their way in exercises. Given system complexity, students can occasionally find themselves with errors that the instructor may not have encountered before. This can be an additional challenge.

Integrating the SAP system with the content in cost management texts can be a challenge given the failure of textbooks to describe realistic cost management system structures. Such ambiguity can lead to student uncertainty and even resentment. I have found (very) brief handouts linking textbook content with each SAP exercise to be a useful supplement as students work on the system. I have also been able to motivate students to appreciate the need for system understanding using guest speakers. I find the business community to be happy to speak to students about the need to understand the systems they'll be seeing on the job.

Have Realistic Expectations

Faculty considering moving to SAP in a cost management course should be prepared for a substantial time investment. Both in preparing exercises and support material and in time required for student support when the class begins. Explicit step-by-step directions are needed because the SAP interface, like typical ERP systems, is not intuitive. Students need careful instruction to become accustomed to the command structure and to system navigation.

A common students frustration occurs when they go astray on an exercise and find that it is not possible to simply delete everything and start over. It's not unusual to receive an email from students saying, "I made a mistake, how do I delete what I did so I can start again?" Of course, that's typically not possible since the system has audit checks that prevent simply wiping out transactions and master data. Errors must be corrected, not deleted. This is often a revelation for students but still a source of acute frustration. Leading students to finding a workaround for there mistakes requires one on one support. I have had success organizing a useful support structure by requiring a rotating group of 2-3 students to complete each exercise early. This group then prepares a brief (10-15 minute) classroom presentation highlighting potential pitfalls for the exercise. This group is then tasked with being available as a resource to the rest of the class on student discussion forums.

Assessment and Evaluation

Student assessments should be carefully designed before course implementation. Assessments should be focused on performance along two dimensions, conceptual understanding of system design and technical configuration effort. The intent is to make students power users of the system.

Several assessment opportunities are available. Sequential assessments and deadlines are needed to encourage students to avoid procrastinating till the last minute. As argued by David et al (2003), students often lack the discipline to be responsible for self-directed learning so each assignment needs to accompanied by serial assessments to help direct and monitor student progress.

I have found success with three interrelated assessments. First, a series of open-ended questions distributed with each exercise prior to class provide a framework for class discussion for each exercise. Much like the discussion of an instructional case, student contributions to the class based on these questions provides a basis for assessment and ensures student engagement in learning. Second, I provide a series of (randomized) on-line quizzes with objective questions administered through a course management system (D2L). Students are able to complete quizzes on their schedule, but deadlines are set to ensure timely progress through the SAP exercises. Finally, student progress can be directly assessed on the SAP system based on success in completing each exercise.

THE LEARNING STRATEGY: STUDENT ENGAGEMENT AND INTERACTION THROUGH EXERCISES AND PROJECTS ON THE SAP SYSTEM

Accounting in SAP is provided in several modules, the two most relevant are SAP-FI and SAP-CO. The former primarily provides access to financial accounting (GAAP) reporting functions. The SAP-CO module is the responsibility accounting system for internal reporting and is the primary focus for a cost management course. Within SAP-CO resides functionality for cost centers (SAP-CC), profit centers (EC-PCA), and product cost (SAP-PC). Assignment strategy is summarized in Table 1 and described in detail below. Sample discussion questions for each part are listed in Table 1.

Table 1			
Summary of SAP Assignments			
1. Introduce the Controlling Module (SAP-CO)			
Access existing SAP-CO reports to review the configuration for various master data, such cost centers, profit centers, accounts			
(cost elements), and cost drivers (activity types). Sample discussion questions:			
1. Describe the organizational structure in SAP-CO.			
2. Describe the two-stage responsibility accounting system. How does it differ for service and manufacturing companies?			
3. How are cost driver (activity type) rates calculated and how are cost drivers used to assign cost to cost objects?			
4. How are profit centers used in SAP-CO? Draw a diagram of cost flows.			
Part 2. Configuration and Planning in the Controlling Module (SAP-CO)			
A. Create master data in SAP-CO. Include service/support departments, line departments, profit centers, cost center groups,			
cost drivers (called activity types, ATs), cost elements (accounts)			
B. Proceed with planning of cost center outputs, directly-traced inputs (cost), centrally planned items, such as personnel			
benefits, and resources used by line cost centers from service/support cost centers.			
Sample discussion questions:			
1. Explain how activity types (cost drivers) are used and how cost elements (accounts) are linked to activity types.			
2. Define and describe the following terms and concepts: cost center group, cost center hierarchy, business area, profit			
center group, cost element category.			
3. Explain the planning sequence in SAP.			
4. Review the cost center reports and the planning steps to explain the calculations underlying each line item in the cost			
center reports.			
Part 3. Posting Transactions.			
Post actual transactions and carry out actual cost assignments, including actual external expenditures (directly-traced cost) and			
actual resources used by line cost centers from service/support cost centers. Sample discussion questions:			
1. How is the over- under-applied amounts in each of the cost center reports calculated? Explain both the debit and credit			
amounts.			
2. Explain the calculations for the cost assigned to user cost centers when they use resources from other cost centers. Be			
sure you understand the line items in both the sender cost center and the user cost center.			
3. Explain how cost centers and profit centers are linked in the system.			
Part 4. Output Cost in the Product Cost Module with Two-Stage and Activity-Based Costing			
Review of configuration for an existing product cost estimate and an existing production order. Then configure a cost estimate			
based on the students' own cost centers. Finally, adjust product cost estimate by including cost from ABC pools. Sample			
discussion questions:			
1. Review the responsibility accounting report for your production cost center. Identify the cost driver used to apply cost			
to production orders and calculate the cost driver rate.			
2. Explain the journal entry made by the system for the cost assigned to the production order from your production cost			
center.			
3. Explain how adding cost from ABC cost pools can improve the product cost estimate.			
4. Explain the components of a product cost estimate. How are the three cost components, direct material, direct labor,			
and production overhead represented in the SAP cost estimate?			

Part 1. Introduce the Controlling Module (SAP-CO)

As mentioned above, students have difficulty connecting textbook concepts to system processes and students often fail to see the holistic system structure found in ERP systems. Thus, the first part is a review of reporting in SAP-CO within the existing structure of the IDES multinational company. The objective is to allow students to connect classroom understanding with the system reporting they see in the system. For this part, no configuration is required by students. They are simply required to access existing SAP-CO reports in IDES to review the configuration for cost centers, profit centers, accounts (cost elements), and cost drivers (activity types). As they proceed, the links between the SAP reporting structure and classroom concepts become apparent to students. I ask them to review the reports and apply familiar cost management concepts, such as cost-volume-profit, cost behavior, and tactical decision making. An important component in part 1 is to review 'drilldown' functionality to view underlying transaction details for line items and to access customized reports for cost centers and profit centers.

I have found that with classroom examples derived from the SAP system, students begin to get a holistic view of the cost flows in a responsibility accounting system as they progress through this exercise. SAP-CO is a prototypical two stage responsibility accounting system. The total cost of any cost center includes directly-traced cost plus the cost of resources assigned from other cost centers. A cost driver must be configured for every cost center to complete the cost assignments from 'sender' to 'user' of internal resources. Every cost center has at least one cost driver. The cost driver is the value-added ('work done') by the cost center and the cost driver 'causes' cost to be incurred in the cost center. Thus, transactions for directly traced cost appear as line items in SAP responsible cost center reports along with line items arising from the (stage 1) cost assignment of internal resources acquired from 'sender' cost centers. Finally, in stage 2, the cost from line cost centers is assigned to products and services sold to customers based on the line department's cost driver. The stage 2 cost assignment is the manufacturing overhead account shown in textbooks for production settings, although the cost assignment from line departments to output (products and services sold to customers) must occur in service companies as well as manufacturers.

Part 2. Configuration and Planning in the Controlling Module (SAP-CO)

After students have been introduced to SAP system structure in part 1 using the existing configuration in the IDES Company, students are ready to begin creating master data and to proceed with the planning function. The first step is to create needed master data. I have found that a successful approach is to ask students to create and configure 4 cost centers and 2 profit centers. Two of the cost centers are service/support departments and the other two are line departments. The profit centers are linked to the two line departments so the cost centers can be linked to revenue from the sales system for measurement of income and return on investment. Other needed master data is cost center groups, cost drivers (called activity types, ATs) for each cost center, and relevant cost elements (accounts) for input and output transactions (cost assignments). So the students don't over-write each other's master data, each student can be assigned a student number to append to master data names.

Once master data is created, students can proceed with planning. Cost center outputs, which are the cost drivers (ATs) of each cost center, are planned, along with directly-traced inputs (cost). It is useful to also have students plan centrally planned items, such as personnel benefits. The next planning requirement is to plan resources (cost drivers) used by line cost centers from service/support cost centers so the system can calculate cost driver rates and proceed with plan (stage 1) cost assignments.

Part 3. Posting Transactions.

After completing the configuration and planning in part 2, students are ready to post actual transactions and carry out actual cost assignments. Students begin by posting actual external expenditures (directly-traced cost) to their 4 cost centers. At this point, most students first realize that all external expenditures (transactions) do not go directly to (GAAP) financial statements but must be first assigned to a responsibility area and then aggregated for financial statements. Next, students can enter actual resources (cost drivers) used by line cost centers from service/support cost centers so the system can complete actual, period-end, cost assignments based on plan rates from part 2.

Part 4. Output Cost in the Product Cost Module with Two-Stage and Activity-Based Costing

The final part allows students to understand how cost is assigned to output. Students begin with a review of configuration for an existing product cost estimate and an existing production order already configured in the IDES company. At this point, it is useful to ask students to use the product cost estimate to review some of the decision support tools from earlier text book study. Potential problems include, for example, target profit estimates, incremental cost calculations, and various transfer pricing decisions. This results in a thorough understanding of the components of a product cost estimate.

The next step is to configure a cost estimate based on the students' own cost centers. This is a traditional two stage cost estimate. In stage 1, the cost from the students' service/support departments is assigned to line departments and in stage 2, cost from students' line departments is assigned to their product cost estimate (along with directly-traced direct material cost). Finally, this product cost estimate can be adjusted by including cost from ABC pools. ABC pools are created and the product cost is adjusted to better reflect resource use and improve product cost estimates.

CONCLUSION

Integrating SAP into a cost management accounting course, offers several useful learning outcomes. First, it provides the opportunity to introduce students to the 'abstract language' of business systems. In addition, the use of problem based learning with up to date business tools improves long-term retention of cost management concepts and is invaluable for student learning (Davis and Comeau 2004; Moody 2003). Finally, integration of SAP into the cost management accounting course provides the following additional benefits.

- Provides an opportunity to study and understand state-of-the-art integrated, cross-functional, business process modeling with advanced technology.
- Allows classroom instruction to be supplemented and reinforced with hands-on exercises using sophisticated software.
- Provides an opportunity to work within a multi-national enterprise seamlessly integrating reporting and controlling.

 Increases marketability for our graduates. Employers value the increased understanding of business processes developed through work on the SAP system.

REFERENCES

- Ahadiat, N. (2008). In Search of Practiced-Based Topics for Management Accounting Education. *Management Accounting Quarterly. Summer*, 42.
- Becerra-Fernandez, I, K.E., Murphy, & Simon, S.J. (2000). Integrating ERP in the Business School Curriculum. *Communications of the ACM.* 43(4), 39-41.
- Cable, R.J., Healy, P., & Mathew, E. (2009). Teaching Future Management Accountants. *Management Accounting Quarterly*, 10(4), 44-50.
- Cannon, D.M., Klein, H.A., Koste, L.L., & Magal. S.R. (2004). Curriculum Integration Using Enterprise Resource Planning: An Integrative Case Approach. *Journal of Education for Business*, 80(2), 93-101.
- Chandra, A., Cheh, J.J., & Kim, I. (2006). Do We Teach Enough IT Skills in Management Accounting Courses. Management Accounting Quarterly, 8(1), 49-54.
- Corbitt, G. & Mensching, J. (2000). Integrating SAP R/3 Into a college of Business Curriculum: Lessons Learned. *Information Technology and Management*, 1(4), 247-258.
- David, J.S., Maccracken, H., & Reckers, P.M.J. (2003). Integrating Technology and Business Process Analysis into Introductory Accounting Courses. *Issues in Accounting Education*, 18(4), 417-425.
- Davis, C.H., & Comeau, J. (2004). Enterprise Integration in Business Education: Design and Outcomes of a Capstone ERP-Based Undergraduate e-Business Management Course. Journal of Information Systems Education, 15(3), 287-299.
- Fedorowicz, J., Gelinas, U.J., Usoff, C., & Hachey, G. (2004). Twelve Tips for Successful Integrating Enterprise Systems Across the Curriculum. *Journal of Information Systems Education*, 15(3), 235-244.
- Fisher, M.J. (2016). Relevance Regained? An Examination of the Contents of Introduction to Management Accounting. *Academy of Business Research Journal*, 2, 32-43.
- Gupta, S., & Marshall, L.L. (2010). Congruence Between Entry-Level Accountants' Required Competencies and Accounting Textbooks. *Academy of Educational Leadership Journal*, 14(1), 1-12.
- Hayen. R.L., Holmes, M.C., & Cappel, J.J. (2000). A Framework for SAP R/3 Enterprise Software Instruction. *The Journal of Computer Information Systems*, 40(2), 79-85.
- Johnson, T., Lorents, A.C., Morgan, J., & Ozmun, J. (2004). A Customized ERP/SAP Model for Business Curriculum Integration. *Journal of Information Systems Education*, 15(3), 245-253.
- McCombs, G.B., & Sharifi, M. (2003). Design and Implementation of an ERP Oracle Financials Course. *The Journal of Computer Information Systems*. 43(2). 71-75.
- Moody, J. 2004. Making Databases Relevant in the Accounting Information Systems Course: Exercises for the Classroom. *Informing Science*, *6*, 1221-1225.
- Tatikonda, L.U. (2004). Naked Truths about Accounting Curricula. *Management Accounting Quarterly, summer.* 62.
- Winkleman, A., & Leyh, C. (2010). Teaching ERP Systems: A Multi-Perspective View on the ERP System Market. *Journal of Information Systems Education*, 21(2), 233-240.

USING PIVOTTABLES IN MANUFACTURING TO EVALUATE INVENTORY COUNT ACCURACY: AN INFORMATION SYSTEMS BUSINESS CASE ANALYSIS STUDY

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CASE DESCRIPTION

PivotTables can be used in manufacturing to summarize large quantities of data without extensive formula development. The primary purpose of this case study is to provide students with an opportunity to use spreadsheet-based PivotTables to analyze the count accuracy of a single factory's monthly physical inventory. To conduct this investigation, students apply concepts from their undergraduate accounting courses and learn how to improve their use of spreadsheet software. The case has a difficulty level appropriate for junior- or senior-level undergraduates taking an AIS (Accounting Information Systems) or Auditing course. The case should require approximately half an hour of class time to generate the PivotTables and an hour of student time outside of class to analyze the results.

CASE SYNOPSIS

The purpose of this assignment is to determine whether the materials manager of M'Zadi, Inc., a Japanese-owned American parts manufacturer, can rely on the accuracy of the count following a monthly physical inventory. After reading a brief description of the company, students receive a spreadsheet file containing pre- and post-inventory counts (thousands of records) for April at M'Zadi's Ohio factory. Acting as the materials manager, students create spreadsheet-based PivotTables to summarize the inventory data for analysis. Without having to build complex formulas, students can use the PivotTables to identify problem areas in the inventory count that require investigation. Their analyses should include inventory accuracy for (a) total inventory, (b) inventory types (e.g., raw materials, WIP, and finished goods), (c) inventory production areas (e.g., production line, receiving, and shipping), (d) individual inventory items, and (e) service inventory. Students also develop PivotTable-supported evaluations to validate acceptance or rejection of the inventory count.

INTRODUCTION

In the automotive industry, the product life cycle of a vehicle model line (e.g., Honda Civic and Nissan Sentra) usually has an overall average of 6.7 years (Center for Automotive Research, 2017). Nominal changes to the basic model during its lifespan are common, but major changes are rare. Automotive parts manufacturers (e.g., Dana, Goodyear Tires, and Tenneco) produce inventory on a daily basis to supply their automotive customers (e.g., Ford, Honda, and Nissan) with required parts (active inventory) for current models. Additionally, "the supply chain needs to ensure parts are available to service vehicles, repair mechanical failures and damages, and perform vehicle enhancement" (Botha, 2017, p. 1). Therefore, parts manufacturers must

keep quantities of raw materials on hand to produce parts for both active models and automotive service providers.

THE COMPANY

M'Zadi, Inc. is a fictional Japanese-owned American automotive parts manufacturer that operates three factories in Ohio, Tennessee, and Mississippi, respectively. The company makes door inserts, using a combination of plastic and fabric, for car manufacturers such as Honda and Nissan. M'Zadi makes some parts using plastic injection molding and then assembles those parts with other purchased parts to produce the finished product. Among the parts they order, some are unassembled so they can be assembled-to-order, and others come pre-assembled to be sold as finished goods. M'Zadi maintains both active and service (replacement parts) inventories. The company's total inventory includes thousands of parts.

MRP Operations at the Ohio Factory

M'Zadi factories in the United States use the Manufacturing Accounting Production and Inventory Control System (MAPICS), a commercial Enterprise Resource Planning (ERP) software platform, to control operations. ERP is an integrated software suite; "it treats the functions inside an organization as interconnected processes" (Avram, 2010, p. 198).

The engineering design team at the Ohio Factory creates the bills of materials (BOM) that determine the parts and quantities needed to produce both active and service parts. Based on the BOMs, the engineering design team creates unique part numbers for all inventory items (e.g., internal and purchased) and enters them into the MAPICS database. All parts used in production must be entered into the MAPICS database to facilitate materials requirements planning (MRP), an inventory control system that enables businesses to schedule, order, and manage materials needed to manufacture products (Dziak, 2019).

The planning cycle for finished goods at the Ohio factory is normally three days long. The factory receives customer orders on the first day and schedules them for production on the second day. On the third day, the completed production orders (finished goods) are shipped from the plant and received by the customer. Most of the parts produced are repetitive (i.e., not unique), so some production runs might produce quantities that are greater than the actual quantities ordered. This approach improves efficiency by reducing the number of production setups. However, M'Zadi does not want to keep on hand any active inventory for more than seven days.

Materials buyers, production planners, materials handlers (i.e., forklift drivers), and shipping and receiving personnel report to the materials manager of the Ohio factory. The planners review current orders from customers (e.g., Nissan and Honda) to determine which finished goods to make in order to fill those orders. Then, the planners enter production orders into the system so that the buyers will know which parts to purchase and the production floor (line) operators will know which goods to make. Based on the production orders and the BOMs for finished goods, MAPICS generates a report detailing items that need to be purchased for production.

The buyers review the MAPICS report for possible errors. For example, the report might show that an item needs to be ordered based on the recorded quantity on hand. However, the buyer might be aware that the item has, in fact, recently been received but perhaps not entered as received in the system. If inventory on hand reported by the system is inaccurate, the buyers could order incorrect quantities resulting in over or under stocked inventory.

Assuming the MAPICS report looks reasonable, the buyers create purchase orders in the MAPICS system. Purchase orders should show both the internal part number based on the BOM and the corresponding supplier part number for each item ordered. The buyer is responsible for sending the newly created purchase orders to suppliers by direct connection, email, fax, or snail mail. When filling an order of parts, suppliers are supposed to attach barcode labels that include M'Zadi's internal part number. However, some suppliers are small and lack the equipment to include barcode labels on the items they ship.

In Ohio, M'Zadi produces active inventory in the main factory and produces service inventory in an adjacent warehouse. All factory location areas, including those in the adjacent warehouse, are barcoded. All materials are supposed to include a barcode label that indicates the internal part number according to MAPICS and the quantity on hand by package (e.g., box of washers and barrel of oil). The transfer of materials and/or finished goods from one location to another is a two-step transaction process. If the receivers, handlers, operators, or shippers forget to scan the inventory at the "to" or "from" locations, the system report will not be accurate. Materials management personnel can also manually enter part and/or location codes into the MAPICS system.

When purchase order items arrive from the supplier to the receiving area of the Ohio factory, the receiving personnel scan the barcode labels on the ordered items. MAPICS then updates the inventory to show the newly arrived raw materials. If a received item is missing an identifying barcode label, the receiver is supposed to create a barcode label that includes the "correct" internal part number and quantity (e.g., 100 washers per box).

Materials handlers (i.e., forklift drivers) move the items onto the raw materials storage racks either inside the factory or inside the adjacent warehouse. When moving parts to the adjacent warehouse, the materials handlers are supposed to scan them ("from" and "to") to update their location. If the forklift driver forgets to scan the moved parts, the recorded location for those parts will not be accurate.

Twenty production lines inside the Ohio factory make active inventory via molding and/or assembly. Two additional production lines make service inventory in the warehouse adjacent to the factory. When the line operators need materials to make a part, they create a handwritten materials requisition list of items with quantities needed to fill an order and give it to the material handlers. The material handlers take the list, which should be legible and accurate, to the raw materials storage area to retrieve the requested items. They are supposed to scan the parts they retrieve from the storage area to indicate the target WIP locations on the production floor. If the part is repetitive (e.g., screws), the handlers will take a full box to the line instead of counting out a specific number. Once they fulfill the materials requisition, they place the list in a folder with the other materials requisitions made that day. Material requisition lists remain on file for one year in case supplementary inventory investigations become necessary.

Once the raw materials reach the production area, the production operators convert them to finished goods. Resin silos are located outside the factory. Resin is pumped from a silo into centralized locations in the WIP and service goods production areas via vacuum tubes. The resin then moves to different production lines via additional vacuum tubes. The setup is spider-like, with individual lines delivering resin as needed during injection molding production. Resin scrap results when the vacuum tubes become damaged or detached during production or resin spills out of a machine when the hopper is loaded. Other raw materials also become scrap during the

production process. For example, parts might be damaged when loaded or unloaded during production, or small parts (e.g., screws) might spill onto the shop floor.

When scrap is produced, the production operator is supposed to report it by scanning the internal part number of the damaged inventory out of WIP and into scrap using the designated code in the system. Scrap codes are not part of the inventory count process; they do not have an internal part number or a physical location code. They are controlled and monitored by the QA function and reconciled after the post inventory count is accepted. If the production operator does not properly scan scrap, the post inventory count will be too low because the transactions to cover scrap loss will be missing.

When a finished good is completed, the production operator places it into its designated bin. For example, the car sideliner bin has a barcode label containing the internal part number. If the customer order calls for ten sideliners, the operator places all ten completed items in the bin. Then the operator scans the bin label and records the quantity produced. MAPICS removes from inventory the parts necessary to create the sideliners, increases finished goods for sideliners by ten, updates the production order to show order fulfillment. The operator will affix new finished goods barcode labels to the sideliners showing a WIP location code and the internal part number for finished sideliners.

When the materials handler moves the finished items from WIP to the Finished Goods and Shipping area, the move is supposed to include a "from" and "to" scan. The final transaction is to ship the finished goods to the customer. Shipping personnel scan items to be shipped to fill the customer order. This final scan takes the items out of the finished goods inventory and the Finished Goods and Shipping location and triggers the system to create an invoice for the customer.

Raw materials and finished goods are constantly changing locations in the factory during a normal day of operations. Prior to physical inventory, however, the amount of movement of raw materials and finished goods to different locations increases. Materials handlers transfer all unused or excess raw materials inventory back to storage so that the production operators in WIP do not have to count unused materials. The handlers also empty the finished goods bins in factory WIP and move the finished goods from WIP to Finished Goods and Shipping. Handlers must also transfer service goods completed in the adjacent warehouse to the factory Finished Goods and Shipping area.

Any time the inventory moves, someone is supposed to scan it "from" a location and "to" a location unless the move is shipment to the customer. According to Leech (2003), the Sarbanes Oxley Act (2002) has been interpreted to mean that a customer cannot be invoiced until after the product has physically left the premises. Shipments made during physical inventory cannot be scanned out because the system is frozen. Therefore, items shipped during this period must be scanned after the system is unfrozen using paperwork instead of the barcoded parts labels.

Increased activity during physical inventory might result in incomplete scan transactions. Also, the paperwork for items shipped when the system is frozen might be inaccurate. If the scans are incomplete or inaccurate, MAPICS will not show accurate physical counts and locations.

Inventory Control

Typically, manufacturing companies perform a full physical inventory annually to report assets in use to internal (e.g., management) and external (e.g., banks and stockholders)

stakeholders (Johnston, n.d.). M'Zadi's policy is to conduct physical inventory at its U.S. factories once a month. While labor intensive, this practice allows management to identify inaccurate inventory counts early to prevent excessive inventory dollar discrepancies.

A physical inventory is necessary to reconcile pre-count inventory amounts recorded in MAPICS with post-count actual amounts. The standard goal for inventory control in the manufacturing industry is at least 97% post-count inventory dollar accuracy (Rose, n.d.). In addition, the materials manager and the controller at the Ohio factory decided that when an inventory item (i.e., part number) has a pre/post difference greater than +/- \$10,000 by item or item location, they should investigate to determine the cause. Depending on the findings of the investigation, a recount of a location or an individual part might be necessary.

MAPICS pre-count records are "frozen" at the start of a physical inventory. After the count is finished for all raw, WIP, and finished goods inventory items, the actual physical inventory amount (i.e., post-count) is entered into MAPICS. The pre-count records remain frozen in the system.

The purpose of the physical inventory is to determine whether the inventory count reported in the system is acceptable (Steinhoff, 2001). Investigations confirm or update post-count entries prior to rejecting or accepting the final post-count results. If the count is unacceptable, the post-count is removed and a new count of all items in the factory begins. If the count is acceptable, the post-count inventory data will overwrite the inventory recorded in MAPICS as the starting point for the next month. The factory remains shut down until the controller and materials manager accept the inventory count.

Investigating Physical Inventory Count Accuracy at the Ohio Factory

To facilitate comparison of pre- and post-inventory counts for accuracy in quantity and cost, the materials manager downloads the pre- and post-inventory counts from MAPICS into a spreadsheet file (MZadi_PrePost_Inventory_Data.xlsx) with a single worksheet (PrePost). The column labels in the worksheet are described in Table 1.

Table 1 M'ZADL INC.					
Descriptio	on of Column Labels in Pre/Post Spreadsheet				
LQNTY	Item quantity (counted in location)				
CURUC	Item current unit cost				
EXTCOST	Item extended cost = LQNTY * CURUC				
ITNBR	Item part number				
ITDSC	Item description				
VNDNR	Vendor identification number				
LLOCN	Location in the factory				
ITTYP	Item type $(1 = active raw materials, 2 = WIP, 3 =$				
	finished goods, 9 = other raw materials)				
UUCC	Service inventory (SV) and obsolete inventory (OB)				
	items identified				
TYPE	Pre- or Post-inventory identified				

The Ohio factory's MAPICS physical inventory location codes located in the LLOCN column of the PrePost worksheet are described in Table 2.

Table 2				
	M'ZADI, INC.			
Physical 1	Locations of Inventory at the Ohio Factory			
MAPICS Inventory	Actual Physical Location of Inventory			
Location (LLOCN) Codes				
fg	Active finished goods, located in the Finished Goods and			
	Shipping section of the factory			
glue	Raw materials of glue in large containers, located in the WIP			
	area of the factory			
qa	Quality assurance hold area for inventory items segregated to			
	the side of the factory WIP area			
rm	Raw materials, located in the receiving area of the factory			
rmbkv	Raw materials used in service production, located in the			
	warehouse adjacent to the factory or raw materials in service			
	production shipped as finished goods			
silo Resin silos, located outside the plant (high dollar values)				
svc fg	Finished service goods, located in the Finished Goods and			
	Shipping area of the factory (usually made once a month)			
W + number (not 49)	Parts purchased from outside suppliers, located in various			
	production line areas of factory WIP			
W49 + number	M'Zadi-made parts used in production, located in various			
	production line areas of factory WIP			
Wbkv	Service parts purchased from outside suppliers for assembly on			
	production line 1, located in the warehouse adjacent to the			
	factory			
Wbkv2	Service parts purchased from outside suppliers for assembly on			
	production line 2, located in the warehouse adjacent to the			
	factory			
WINJ	Resin brought into the factory from silos in each production			
line area in WIP to make parts, located in the factory				
	(approximately 20 production lines for active inventory)			
WPT00	Specialized parts purchased from outside suppliers and			
	required for active parts assembly, located in various			
production line areas of factory WIP				

With thousands of records to evaluate, the materials manager uses PivotTables to extract summary information from the PrePost worksheet to determine inventory accuracy for total inventory, different inventory types (e.g., raw materials, WIP, and finished goods), different inventory production areas (e.g., production line, receiving, and shipping), individual inventory items, and service inventory.

After selecting the PrePost sheet tab in the MAPICS spreadsheet file, the manager creates the first PivotTable to determine inventory accuracy for total inventory and inventory types, expressed in dollars:

- 1. Click any cell in the dataset (e.g., A2), excluding label header cells in row 1.
- 2. Go to Insert -> Tables (Group) -> PivotTable (see Figure 1).
- 3. When the Create PivotTable dialog box opens, a marquis will surround all cells in the sheet, including the labels.
- 4. Click OK to accept the default options (see Figure 2).



Figure 2



A new worksheet containing an unpopulated PivotTable appears (see Figure 3). The PivotTable name and a single line of instructions are on the left, and PivotTable Fields options based on the backend data used to create the PivotTable are on the right. The Areas section is under the PivotTable Fields section.



Using drag and drop, the materials manager follows the steps below to move fields into the different boxes in the Areas section to update the PivotTable so that it displays inventory cost in total and by type for pre- and post-inventory:

- 1. Using the scroll bar on the right in the PivotTable Fields section, scroll down to the ITTYP field.
- 2. Click on the ITTYP field and drag it into the ROWS box in the Areas section under the Fields list.
- 3. Click on the TYPE field and drag it into the COLUMNS box in the Areas section.
- 4. Click on the EXTCOST field and drag it into the VALUES box in the Areas section.
- 5. The updated PivotTable should look like Figure 4.

,				Figu	re 4					
- 1000			Ste	p 4: Creating	, a PivotT	able	100 - 1 day	20000000	1.	
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	6	+	TINSERT Slicer	B.		3	17x			
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*	Field *	*	Filter Connections	* So	urce *	*	*	*	*	
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	А		В	С	D					
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2		TOODT		-			Ch	oose fie	lds to ac	ld to
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6 2			673233.5673	723656.6272	1396890.	195		80.4444.55		
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8 9			193274.4848	197898.2409	391172.72	257	\checkmark	EXTCO	ST	
9 Gran	d Tota	d 👘	4065671.701	4166059.262	8231730.9	962		ITNBR		
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$\mathbb{R}^{n} \to \mathbb{R}^{n}$	S	heet1	PrePost (+)	E 4		Þ		Deter	Layout U	PO UPDATE

The Grand Total Column in the updated PivotTable adds the two inventories (pre and post) in dollars. However, the materials manager needs to know the difference between the two inventories to evaluate accuracy. Data manipulation inside a PivotTable is now possible in more recent versions of spreadsheet software. Exporting PivotTable results in order to perform calculations and sorts is no longer necessary.

To create a "Difference" column in the existing PivotTable without deleting the Grand Total column, the materials manager performs the following steps:

- 1. Click on the "post" label cell (B4) in PivotTable 1 to select it.
- 2. Click on the Analyze tab on the ribbon.
- 3. In the Calculations group, click on the down arrow next to Fields, Items, & Sets
- 4. Click Calculated Item from the dropdown menu (see Figure 5).
- 5. In the Insert Calculated Item in "TYPE" dialog box, type Difference in the Name: text box.
- 6. In the Formula: text box, backspace over the zero so that only the equal sign appears in the text box.
- 7. Type **post pre** next to the equals sign ("= post pre") (see Figure 6).
- 8. Click OK to return to the PivotTable, which should display the new Difference column (see Figure 7).

-	Figure 5							
Ster	9 <mark>1</mark> :	Manipul	ating PivotTable Data					
Analy	ze	Design	${\mathbb Q}$ Tell me what you want to					
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Actions	Calculated <u>F</u> ield							
*	Calculated Item							
		<u>S</u> olve Ord	er					
	∏ <i>f</i> x	<u>L</u> ist Formu	ulas					
Н		Create Se	t Based on <u>R</u> ow Items					
		Create Se	t Based on <u>C</u> olumn Items					
		<u>M</u> anage S	iets					

		Figu	ire 6			
	St	ep 2: Manipulati	ng PivotTa	able Data		
Insert Ca	lculated Item in "T	YPE"			?	\times
<u>N</u> ame:	Difference			~	<u>A</u> dd]
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EXTCOST ITNBR ITDSC VNDNR LLOCN ITTYP UUCC TYPE			post pre			~
		Insert Fi <u>e</u> ld			Insert	
				ОК	Clo	se

	Figure 7									
	Step 3: Manipulating PivotTable Data									
	A B C D E									
1										
2										
3	3 Sum of EXTCOST Column Labels 💌									
4	Row Labels	post	pre	Difference	Grand Total					
5	1	411739.3312	423488.3737	-11749.04245	823478.6624					
6	2	673233.5673	723656.6272	-50423.05988	1346467.135					
7	3	2787424.317	2821016.02	-33591.70232	5574848.635					
8	9	193274.4848	197898.2409	-4623.7561	386548.9696					
9	Grand Total	4065671.701	4166059.262	-100387.5608	8131343.402					
10										
11										

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- 9. To calculate the percentage difference in dollars between pre- and post-inventory, select cell A11 and type **Percentage**.
- 10. In cell B11, type "=B9/C9" and press Enter. (Note: This is a basic spreadsheet calculation, external to the PivotTable.)
- 11. The first PivotTable sheet (PivotTable 1) should now contain the new values (see Figure 8).

	Figure 8									
	Calculate the Percent Difference in Dollars between Post and Pre Inventory									
	A B C D E									
1										
2										
3	Sum of EXTCOST	Column Labels 💌								
4	Row Labels	post	pre	Difference	Grand Total					
5	1	411739.3312	423488.3737	-11749.04245	823478.6624					
6	2	673233.5673	723656.6272	-50423.05988	1346467.135					
7	3	2787424.317	2821016.02	-33591.70232	5574848.635					
8	9	193274.4848	197898.2409	-4623.7561	386548.9696					
9	Grand Total	4065671.701	4166059.262	-100387.5608	8131343.402					
10										
11	Percentage	0.975903473								
12										
13										

PivotTable 1 now shows the difference between pre- and post-inventory, expressed in dollars and percentage for total inventory and in dollars for inventory type (e.g., raw materials, WIP, and finished goods). While the actual inventory count meets the best practices minimum requirement for accuracy (i.e., 97%), the discrepancy is wide enough to warrant deeper investigation. To proceed, the materials manager needs to create additional PivotTables to summarize inventory accuracy for different production areas, individual inventory items, and service inventory items.

To determine which production areas gained or lost inventory, the manager creates a second PivotTable in a new worksheet following the directions listed above (see Figures 1-3):

- 1. Drag LLOCN into Rows
- 2. Drag TYPE into Columns
- 3. Drag EXTCOST into VALUES

Note: Newer spreadsheet software versions should automatically create the Difference column based on the first PivotTable. If not, repeat the steps for creating the Difference column (see Figures 5-7).

 Right click on the first data cell in the PivotTable Difference column (i.e., B5, assuming the Difference column appears in the B column) and select Sort -> Sort Smallest to Largest Note: Calculating a percentage discrepancy for PivotTables 2-4 is not necessary.

To determine which item (i.e., part number) shows the greatest gain or loss, the manager creates a third PivotTable in a new worksheet:

- 1. Drag ITNBR into Rows
- 2. Drag TYPE into Columns
- 3. Drag EXTCOST into VALUES
- 4. Create the Difference column (if necessary)
- 5. Sort the Difference column from smallest to largest

To determine whether the service inventory has significant gains or losses, the manager creates a fourth PivotTable in a new worksheet:

- 1. Drag UUOC into Rows
- 2. Drag TYPE into Columns
- 3. EXTCOST into VALUES

In summary, the purpose of a physical inventory is to determine whether the inventory count is acceptable. The process to support this decision begins with the following steps:

Prepare four PivotTables:

- 1. PivotTable 1: Create a PivotTable that shows the difference between total pre- and post-inventory, expressed in dollars and percentage, and the difference between pre- and post-inventory by type (e.g., raw materials, WIP, and finished goods), expressed in dollars.
- 2. Pivot Table 2: Create a PivotTable that shows which production areas gained or lost inventory (e.g., production line [W + number], receiving area [rm], shipping [fg], and quality control [qa]), expressed in dollars with the Difference column sorted smallest to largest.
- 3. PivotTable 3: Create a PivotTable that shows which items (i.e., part numbers) have the greatest gains or losses, expressed in dollars with the Difference column sorted smallest to largest.
- 4. PivotTable 4: Create a PivotTable that shows the gain or loss of service inventory, expressed in dollars.

Investigate discrepancies found between pre- and post-inventory counts:

- 1. Based on the description of factory operations, discuss possible reasons for the discrepancies shown in the PivotTables.
- 2. Deliver a supported "preliminary decision" to accept or reject the physical count.

CONCLUSION

Based on the results of the PivotTables, identified problem areas need to be physically investigated to determine reasons for the differences between pre- and post-inventory counts. Backup visual inspections are necessary to make sure no errors occurred during the physical count. Barring count errors, factory personnel responsible for identified problem areas need to be interviewed to pinpoint reasons for count discrepancies, especially those in the high dollar range. Ultimately, based on supporting documentation, physical inspections, and operations personnel interviews, the materials manager recommends whether to accept or reject the physical inventory count at the Ohio factory.

REFERENCES

Avram, C. D. (2010). ERP inside large organizations. Informatica Economica, 14(4), 196-208.

- Botha, A., Grobler, J., & Yadavalli, V. S. S. (2017). System dynamics comparison of three inventory management models in an automotive parts supply chain. *Journal of Transport & Supply Chain Management*, 11(1), 1-12.
- Center for Automotive Research. (2017, September 20). Automotive product development cycles and the need for balance with the regulatory environment. Retrieved from https://www.cargroup.org/automotive-product-development-cycles-and-the-need-for-balance-with-the-regulatory-environment/
- Dziak, M. (2019). Material requirements planning (MRP). *Salem Press Encyclopedia*. Retrieved from EBSCOHost Research Starters.
- Johnston, K. (n.d.). How to conduct a physical inventory in manufacturing. *Chron.com*. Retrieved from https://smallbusiness.chron.com/conduct-physical-inventory-manufacturing-12528.html
- Leech, T.J. Sarbanes-Oxley sections 302 & 404: A white paper proposing practical, cost effective compliance strategies (2003, April). Retrieved from U.S. Securities and Exchange Commission website: https://www.sec.gov/rules/proposed/s74002/card941503.pdf
- Rose, J. (n.d.) A guide to implementing a world-class cycle counting program. Retrieved from https://web.archive.org/web/20111112082330/http://www.tompkinsinc.com/publications/monograph/mono graphList/WP-19_Cycle_Counting.pdf?monographID=WP-19
- Sarbanes-Oxley Act of 2002, Pub. L, 107-204, 116 Stat. 745 §§ 302(a)(5)(b)-404(a)(1-2) (2002). Retrieved from https://www.govinfo.gov/content/pkg/STATUTE-116/pdf/STATUTE-116-Pg745.pdf
- Steinhoff, J. C. (2002). Executive guide: Best practices in achieving consistent, accurate physical counts of inventory and related property (Report No. GAO-02-477G). Retrieved from https://www.gao.gov/new.items/d02447g.pdf

ALIBABA GROUP: RIVALS AT THE GATE?

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CASE DESCRIPTION

This case is primarily intended for use in the international strategy section of a business policy or competitive strategy course. It can be used as an overview of the many decisions and actions that an organization has to undertake to sustain a competitive advantage. This case can also be used to augment discussions of strategic analysis, globalization impacts, transnational strategy, specifically both in domestic and international markets and strategic formulation.

This case study aims to present a complex and dynamic international e-commerce corporation, which has experienced rapid growth. Naturally, undergoing drastic corporate expansion comes with its share of challenges. The challenges discussed in the case provide students with the opportunity to analyze a complex system of issues and develop their own unique evaluations.

The case is rich enough for advanced and graduate students and has been developed in a manner that will allow students to diagnose the root(s) of the company's issue(s) as detailed in the case, and then form opinions and suggestions for any strategy that the company should pursue. Students should expect to spend two hours preparing for the case discussion and then the case can be discussed in the classroom in one to one and a half hours depending on instructor preferences and discussion style.

CASE SYNOPSIS

During a visit to the United States in 1995, Jack Ma, the founder of Alibaba, heard about the internet for the first time. With his hands on the technology, he searched for the word beer on Yahoo. Ma was surprised to find that his Internet search came up with beers from Europe and America, but there was nothing from China. At that moment, he decided to build a business that could facilitate the buying and selling of Chinese products abroad. Even in the face of great scrutiny, he identified the great business potential of e-commerce and founded Alibaba in 1999.

Ma's once criticized vision for the Alibaba Group has now evolved into a thriving global operation, making it one of the most successful companies of the past decade. Alibaba's stock price has been one of the top performers among technology companies around the world. Its past year performance aggressively competed with one of its fiercest international competitors, Amazon (see Exhibit 1). However, Alibaba's continuously evolving business model, along with increasingly growing domestic competition from companies like Tencent Holdings, Baidu, and JD.com, has created numerous challenges for the company to move forward and replicate that past performance record. Intuitively, the meteoric rise of Alibaba has been accompanied by a number of direct and indirect challenges, which are consistently growing with the size of the company. From domestically-based pressures, such as increasing competition, to international obstacles involving new and unchartered U.S. market conditions, Ma's Alibaba Group has its work cut out. Additionally, the Chinese government has tightened e-commerce regulation, which led to formal complaints aimed at Alibaba's practices regarding fraud protection. A great deal of debate is attempting to hash out the ambiguities associated with the determination of the company's future competitive sustainability and financial viability.ⁱ



Exhibit 1: Alibaba Stock Price Performance VS. Amazon, JD.com, and Baidu (Source: Yahoo Finance, 2018)

COMPANY HISTORY AND EVOLUTION

Ma Charm

Jack Ma did not benefit from any type of advantageous handicap. During a speech at Stanford University, Ma stated, "We are a very lucky company... There was no chance that we would survive. I don't have any background, rich father, or strong uncles."ⁱⁱ Ma's success seems to be the outcome of his innovative vision and aggressive business savvy. Scott Kessler, an analyst from S&P Capital IQ, describes Ma as, "someone who thinks very long term—which is something that isn't very common these days."ⁱⁱⁱ Ma departs greatly from the typical Chinese personality archetype. His flamboyant style, forwardly opinionated demeanor, and unconventional business approach define the man known as Jack Ma.^{iv}

Ma first encountered the Internet during a business trip to the United States as a translator. While his initial goals pertaining to his travels failed, his introduction to the Internet surely made the endeavor worthwhile. After recognizing the Internet's potential, he headed back to China to pursue opportunities involving its application. Ma initially developed a Chinese listing website, which he eventually sold to the Chinese government. For some time, Ma worked with the Chinese Ministry of Commerce in Beijing. Finally, Ma decided to move back to his hometown, where he would discover something that would change everything.^v

Alibaba Incorporated

In 1999, Jack Ma and his team of seventeen co-founders officially established Alibaba Group out of his apartment in Hangzhou, Ma's hometown in Eastern China. Upon the company's commencement, a global wholesale business-to-business online marketplace, Alibaba.com was born.vi From 1999-2000, Ma and his team worked to acquire venture capital funding. During January 2000, the company successfully signed a deal for US\$20 million with a group of investors led by a Japanese multinational corporation, Softbank. Other financial institutions, such as Goldman Sachs and Fidelity, were also early investors in Alibaba Group. In 2001, the company surpassed one million users and operated with positive cash flow; this was Ma's first encounter with profitability.^{vii}

In 2005, U.S. corporation Yahoo! and Alibaba.com formed an international strategic partnership. This partnership allowed the two companies to work together towards improving the Yahoo! brand presence in China. Yahoo! purchased US\$1 billion of Alibaba.com shares, which, in agreement with Alibaba Group, provided Yahoo! "... 40% economic interest with 35% voting rights... ".^{viii} Ma explained, "Teaming up with Yahoo! will allow us to deliver an unmatched range of e-commerce services to businesses and consumers in China."^{ix}

In 2007, Alibaba began trading as a public company on the Hong Kong stock exchange as Alibaba.com Limited. The IPO raised \$1.67 billion, which made Alibaba.com Limited the largest Internet IPO in Asia. The IPO share price opened at \$1.73 and sharply rose 192.6% to \$5.05 per share.^x Ma stated, "We are pleased to welcome investors from Hong Kong and around the world to join us in building a world-class e-commerce company."^{xi} Major investors involved with the offering included Yahoo! Inc., Foxconn Limited, the Industrial and Commercial Bank of China Limited, and AIG Global Investment Corporation Limited. David Wei, CEO of Alibaba.com, announced, "Our Hong Kong listing is an important milestone for our Company... We will use the resources and brand exposure gathered from the listing to expand our community of members and add more value to their business."^{xii}

In 2014, Alibaba Group officially filed for an IPO in the United States.^{xiii} After the international business community got the news that Alibaba Group would begin publicly trading in the U.S., there was an uproar on Wall Street surrounding the monumental event. The tremendous growth trajectory of the company along with an increase in revenues provided promising evidence that Alibaba would not have a problem competing with American firms. (See Exhibit 3)



Exhibit 2: Top 7 IPOs in the United States as of 2018 (in \$ Billions) (Source: Renaissance Capital, United States; January 2018)



it 3: Alibaba Group Annual Revenue 2010-2017 in Millions of Chinese Yuan - (\$1 USD = 6.34 CNY)

(Source: Alibaba Annual Reports)

Company Philosophy

Alibaba Group participates in various markets through its different businesses. A central theme among Alibaba's businesses points to providing an online platform for buyers and sellers around the world. Alibaba Group identifies itself as an ecosystem, in which its diverse online marketplace platforms meet the needs of heterogeneous buyer-seller relationships throughout the

world.^{xiv} In a letter to investors, Ma states, "Alibaba is a value-based company driven by our mission to make it easy to do business anywhere. Our proposition is simple: we want to help small businesses grow by solving their problems through the Internet."^{xv} Alibaba Group is frequently compared to popular global e-commerce companies such as eBay, Amazon, and PayPal. Alibaba Group's multi-dimensional "open marketplace" is recognized as the largest global marketplace by volume.^{xvi}

Business Model

Typically, e-commerce businesses maintain warehouses to store inventory. Engaging in direct selling is also a commonplace practice. In this effort, a company attempts to sell products directly to connected consumers through their e-commerce platform. Frequently, e-commerce businesses own or work in conjunction with committed distribution channels. The philosophy behind Alibaba's success strays from the classic e-commerce approach. Alibaba does not own any warehouses, does not oversee or corroborate with any distribution channels, and never engages in direct selling of goods. Alibaba aims to simply connect small businesses and manufacturers with a global pool of potential consumers.^{xvii}

Alibaba's e-commerce revenue generation is acquired through variegated fees. Merchant fees are charged to users based on the number of units sold in retail centers. A fixed rate is required of members in the wholesale centers. Small businesses have the option to have their own storefronts for which there are special membership fees.^{xviii} More than 50% of revenue is earned by online advertising efforts. Consumers use the Taobao Marketplace search engine to locate desired goods by entering phrases containing keywords. These keywords are auctioned—providing the highest bidders with advertising space for when a customer enters the specific keyword. Advertising revenue, a significant portion of revenues, comes through homepage advertising space. Taobao, Tmall.com, and Alibaba.com set aside areas on their respective homepages for merchants to purchase. Due to the shift from PC-based to mobile platform consumer preference, adjustments must be made to advertising efforts. Taobao and Baidu dominate the online advertising market in China.

Components of Alibaba

Alibaba's numerous businesses allow the company to accurately focus on divergent ecommerce trading relationships. While the company's original efforts to provide a global ecommerce platform still exist, the growth of the company led derivative businesses to be conceived in order to expand Alibaba's functionality and potential user base. The company provides its services to both large-scale and small-scale organizations alike. Additionally, some platforms are geared towards global e-commerce, while others primarily focus on domestic transactions within China (see Exhibit 4 and 5).



Exhibit 4: Alibaba Group Organizational Structure

(Source: Alibaba Annual Report 2017)

Our business



Exhibit 5: Alibaba Group of Businesses and Major Business Partners

(Source: Alibaba Annual Report 2017)

In 1999, Alibaba.com was created alongside the initial founding of Alibaba Group. The flagship business division is described as a "global wholesale marketplace online for international customers."^{xix} Globally, Alibaba.com is reported to be the largest online business-to-business platform. The e-commerce platform deals with buyers and sellers from over 240 countries.^{xx} The marketplace aims to connect international buyers with Chinese sellers. Nevertheless Alibaba encourages vendors from anywhere in the world to utilize the global trading platform.^{xxi}

1688.com, a business segment of Alibaba.com, was officially launched in March 2010. 1688.com, like Alibaba.com, is a business-to-business online e-commerce platform. While Alibaba.com focuses on facilitating B2B trading transactions globally, 1688.com is specifically geared towards enabling B2B wholesale transactions within China domestically. As of 2013, 1688.com had acquired one hundred million registered users.^{xxii} AliExpress, one of Alibaba's businesses, was developed and released in April 2010. AliExpress's purpose, similar to Alibaba.com, focuses on smaller B2B interactions. AliExpress allows the targeted small businesses, internationally, to purchase goods in smaller quantities at wholesale prices (see Exhibit 6 and 7).^{xxiii}

The Taobao Marketplace, an alternative to Alibaba.com focusing on consumer-toconsumer trading transactions, was introduced in May 2003. With seven million registered merchants, Taobao Marketplace is the most preferred C2C online marketplace in China. Taobao marketplace attributes its growth to the incorporation of commission-less transaction platform Alipay. The majority of Taobao's revenue (85%) stems from advertising.

A Taobao Marketplace, including Tmall.com, was developed in April 2008, which eventually became a separate division of Alibaba Group in June 2011. Essentially, Tmall.com is a business-to-consumer retail online shopping mall. Vendors are permitted to register and open 'storefronts' on the website and consumers can browse the different digital establishments. Tmall.com is the most popular B2C retail online web-platform, controlling approximately 50% of China's B2C market.^{xxiv} The Taobao and Tmall.com platforms have been aggressively adopted throughout China, so much so that remote townships completely rely on the e-commerce platforms. These "Taobao Villages" sustain themselves by using Taobao Marketplace and Tmall.com as their main sources of income.^{xxv}

An initial issue that Alibaba Group faced was the absence of an online payment platform. In response, Alibaba Group developed its own online payment platform called Alipay. Originally, Alipay was considered a peripheral component of Alibaba.com, specifically on the Taobao platform. In 2004, Alipay became a separate business. A valuable incorporated feature of Alipay is its escrow capabilities, which provides a buyer more security and more control over transactions. Alipay is the most used third-party online payment platform in China, which is responsible for approximately half of all electronic payments.^{xxvi}



Exhibit 6: The Networks Effect on And Across Alibaba Platforms (Source: Alibaba Annual Report)



Exhibit 7: Alibaba Ecosystem and its Participants (Source: Alibaba Annual Report)

Apart from the e-commerce businesses incorporated under Alibaba Group, many other businesses focus on adjacent markets. Aliyun.com, launched September 2009, is China's paramount cloud-computing platform. Alibaba Group shrewdly harmonizes Aliyun's cloud-computing capabilities with its other businesses. Aliyun's data mining, processing, and analytic capabilities can be applied to its e-commerce businesses, which provide massive amounts of raw data via buyer-seller transaction data.^{xxvii}

ALIBABA GROWTH STRATEGY

Corporate Investments & Acquisitions

Alibaba Group's labyrinth-like internal structure is vast and complex compared to most traditional business models, yet its exceptionally constructed business architecture continues externally. Since its early years, the company has pursued acquisition and investment opportunities. Its first substantial external engagement dates back to 2005, when Yahoo! China merged its China-based operations with the Alibaba Group business ecosystem.^{xxviii}

Upon the formal announcement of Alibaba's U.S. IPO, the company's acquisition and investment strategy continued to magnify. "We have made, and intend to continue to make, strategic investments and acquisitions to expand our user base, enhance our cloud computing business, add complementary products and technologies and further strengthen our ecosystem. For example, we expect to continue to make strategic investments and acquisitions relating to mobile, O2O services, digital media, category expansion, as well as logistics services."^{xxix}

Alibaba has focused primarily on domestic investment endeavors, although the company has financially engaged some U.S. Companies as well. Lyft, an American car service company, and Tango, an American messaging service, are two cases of Alibaba's investments in U.S. companies.^{xxx}

Alibaba has penetrated various markets through acquisitions and investments (see Exhibit 8). At times, the decisions are perceived as ambiguous and unexpected. In 2013, a stake of 18% worth \$586 million was acquired in Sina Weibo, which is a Chinese company analog of Twitter.^{xxxi} In April of 2014, Alibaba, along with Jack Ma's private equity company Yunfeng Capital, procured 18.5% of Youku Tudou, a popular Chinese Internet video company for a total of \$1.2 billion. "We are excited to cooperate and work closely with Victor and his team to support their innovation in this key emerging space as well as accelerate our digital entertainment and video content strategy. This is an important strategic initiative that will further extend the Alibaba ecosystem and bring new products and services to Alibaba's customers."^{xxxii}

Additional investments focus on mobile applications and logistics. Umeng, a mobile analytics company, was purchased for US\$80 million, and Alibaba invested US\$50 million in Quixley — a mobile app search engine. The delivery service joint venture, China Smart Logistics, benefitted from an investment of US\$269 million, which granted Alibaba 48% ownership. A more palpable investment took place in January 2014, when Alibaba invested US\$15 million in a luxury e-commerce website called 1stdibs.^{xxxiii} Amid continuous investments and acquisitions, Alibaba has become a dominating force in the Chinese B2B and B2C markets (see Exhibits 9 and 10).



Exhibit 8: Alibaba's Investments as of 2018 (in \$ Billions)

(Source: The Economist)



Exhibit 9: Market share of B2B e-commerce platforms in China by 2017 (Source: China e-Business Research Center)

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Exhibit 10: Market share of B2C online shopping websites in China by 2017 (*Source: iResearch*)

The fiscal year is April-March. All values USD millions.	2017	2016	2015
Sales/Revenue	\$ 23,522	\$ 15,903	\$ 12,300
Sales Growth	48%	29%	43%
Cost of Goods Sold (COGS) incl. D&A	9,474	5,863	4,181
COGS Growth	62%	40%	87%
Gross Income	14,048	10,040	8,116
Gross Income Growth	40%	24%	28%
SG&A Expense	6,786	5,390	4,353
SGA Growth	26%	24%	92%
Other Operating Expense	-	-	-
EBIT	7,262	4,650	3,762
Unusual Expense	217	(6535)	28
Non-Operating Income/Expense	1,427	766	454
Non-Operating Interest Income	779	1,102	1,526
Interest Expense	397	306	444
Pretax Income	8,921	12,810	5,218
Income Tax	2,047	1,328	1,036
Equity in Affiliates	(747)	(272)	(257)
Minority Interest Expense	(364)	(27)	10
Net Income	6,491	11,236	3,916
Net Income Growth	-42%	187%	3%
Net Income After Extra ordinaries	6,791	11,236	3,916
Preferred Dividends	-	-	18
Net Income Available to Common	6,491	11,236	3,898
EPS (Basic)	3.6	4.57	1.67
EPS(Basic) Growth	-43%	174%	-4%

FINANCIAL STATEMENTS

Exhibit 11: Alibaba Consolidated Income Statement – 2017 (in \$USD)

(Source: Alibaba Annual Report 2017)

Assets			
The fiscal year is April-March. All values USD millions.	2017	2016	2015
Cash & Short Term Investments	\$ 21,881	\$ 18,097	\$ 20,694
Total Accounts Receivable	3,241	1,901	1,825
Inventories	-	-	-
Other Current Assets	1,127	585	272
Total Current Assets	26,249	20,583	22,792
Net Property, Plant & Equipment	2,932	2,107	1,178
Total Investments and Advances	22,092	18,686	7,821
Long-Term Note Receivable	9	27	152
Intangible Assets	20,246	13,454	8,325

Other Assets	1,963	1,515	374
Total Assets	73,548	56,377	41,268
Assets - Total - Growth	30%	37%	130%
Asset Turnover	36%	-	-
Return on Average Assets	10%	-	-
Liabilities & Shareholders' Equity			
ST Debt & Current Portion LT Debt	\$ 2,162	\$ 665	\$ 321
Accounts Payable	-	-	-
Income Tax Payable	889	431	441
Other Current Liabilities	10,556	6,949	5,637
Total Current Liabilities	13,606	8,046	6,399
Current Ratio	1.93	2.56	3.56
Quick Ratio	1.93	2.56	3.56
Cash Ratio	1.61	2.25	3.23
Long-Term Debt	11,149	8,267	8,162
Provision for Risks & Charges	91	286	-
Deferred Taxes	1,417	996	699
Other Liabilities	189	113	419
Total Liabilities	26,508	17,713	15,705
Non-Equity Reserves	-	-	106
Preferred Stock (Carrying Value)	434	54	-
Common Equity (Total)	40,463	33,576	23,526
Total Shareholders' Equity	40,897	33,631	23,526
Total Shareholders' Equity/Total Assets	56%	60%	57%
Accumulated Minority Interest	6,142	5,033	1,931
Total Equity	47,039	38,664	25,457
Liabilities & Shareholders' Equity	73,548	56,377	41,268

Exhibit 12: Alibaba Balance Sheet – 2017

(Source: Alibaba Annual Report 2017)

BRICK AND MORTAR RETAIL REMAINS STRONG IN CHINA

Annual retail revenue in China has increased from \$370 billion to \$2 trillion in the past ten years.^{xxxiv} In terms of consumption volume, China has become the largest food and grocery market in the world that is expected to grow at an increasing rate in the years to come. After experiencing success in the e-commerce market, Alibaba recently stepped into brick and mortar retail by introducing Hema Supermarkets in 2015. Over the past two years, the company invested about \$8 billion on brick and mortar stores in China. In order to increase the speed of its presence in the brick and mortar retail market, Alibaba also announced an investment of \$2.9 billion in Sun Art Retail Group.^{xxxv} Expanding physical presence in the retail market will challenge Alibaba in many ways, as the company has primarily been an internet business. According to National Bureau of Statistics in China, almost 100,000 retail companies are serving
the Chinese people around the country. Competing with thousands of local grocery stores and vendors may not be the kind of competition that Alibaba had encountered so far.

THE COMPETITION

The Chinese digital market is expected to remain the world's largest as compared to the US and Europe. Winning in China will translate into winning as a company for Alibaba as international competitors like Amazon will make it extremely challenging for Alibaba to dominate in the global e-commerce market. By 2017, the online population in China was around 700 million as compared to 265 million in the US. Demographically, Alibaba is at an advantageous position in the world's largest digital market. However, the Chinese e-commerce market is also one of the toughest battlegrounds for technology companies. Additionally, there are many untapped markets in the developing world when it comes to the e-commerce industry. Those potential markets include Africa, South Asia, Middle East, and South America.

Alibaba faces immense competition from two kinds of competitors, and both of those are squeezing the growth opportunities for Alibaba locally as well as internationally. Alibaba's top two global competitors include Amazon and eBay, whereas the top three homegrown competitors include JD.com and Baidu. Many US companies, including Uber and Facebook, have failed to penetrate successfully in China. Nonetheless, achieving success in China as a domestic company is also almost as difficult as it is for international companies.

	Amazon	Alibaba	eBay
Holds Inventory	Yes	No	No
Consumer Credit Services	Co-branded Credit Card	No	Bill Me Later
Advertising Services	Yes	Yes	Yes
Available Technology Platform	Yes (Amazon Web Services)	Yes	Yes (Open Source Platform)
E- Payment Service	No	Alipay	PayPal
Direct Sales	Yes	No	No
Matches Buyers and Sellers	Yes	Yes (via 1688.com)	Yes
Individual Storefronts	Yes	Yes	Yes
Manufactures Proprietary Goods	Yes (Kindle/Fire)	No	No
Content Provider	Yes (Streaming videos/e-books)	No	No
Publisher	Yes (Books/music/films/ technology)	No	No
Membership Fees	Yes (Prime)	Yes	No

Exhibit 13: A Comparison of E-commerce Platforms

(Source: Investopedia)

Amazon

Jeff Bezos, the richest man in the world, founded Amazon in 1994 in Seattle, United States. From an online bookstore to a world-class e-commerce company, Amazon's growth and success is a remarkable story. It has been a star among e-commerce companies in the recent past. The stock price performance topped all the Wall Street estimates and soared about 173% from January 2016 to January 2018.^{xxxvi}

Amazon follows an operational style mirroring that of offline retailers. It engages in direct selling to customers, controls its own distribution-warehousing facilities, and engages in manufacturing its own brand of goods. In 2000, the company developed platform functionality

that permitted individual sellers to connect with consumers through Amazon.com. The company's website boasts, "Over 2 million third-party sellers participate in Amazon where they offer new, used, and collectible selections at fixed prices to Amazon customers around the world."^{xxxvii} Amazon is revered for its extremely effective logistics and customer service.^{xxxviii}

Over the past decade, Amazon has become the largest e-commerce retailer in the world. The company dominates the U.S. online shopping industry and is consistently expanding around the world. Amazon achieved remarkable milestones in terms of growth and expansion. According to Gartner Research, Amazon's public cloud services are expected to grow at about 23%, whereas the total market in the same segment is expected to grow at about 13%.^{xxxix} Similar to Alibaba, Amazon's business model consists of many subcategories that include an online store, subscription services, third-party vendors, virtual assistant electronic devices, online advertising, online streaming services and many others. Amazon's annual growth rate averaged around approximately 50% over the past few years.^{x1} According to Jeff Bezos, Amazon achieved success due to its customer-focused business strategy. It allowed the company to amaze its customers by developing products and services based on their own ideas and preferences.

Despite Amazon's success in the U.S. and other parts of the world, China still remains a challenging market due to immense competition. China is one of the most lucrative markets for e-commerce companies in terms of an active number of online daily users, yet it remains one of the most challenging battlefields for domestic as well as international e-retailers such as Amazon. However, the most significant threat that Amazon poses to Alibaba is in the international territory.

eBay

eBay's auction-based platform aims to connect buyers and sellers. It originally provided its own payment system called PayPal.⁴ The company claims, "We are primarily a transactionbased business that generates revenue from the transactions and payments that we successfully enable."^{xli} Similar to Alibaba, eBay does not partake in the holding of inventory. More recently, PayPal began offering credit services originally called 'Bill Me Later' and eventually changed its title to PayPal Credit. eBay benefits from this development because now consumers can easily access a line of credit to help confidently engage in auctions. Another business under eBay is called eBay Enterprise, which deals with marketing, advertising, retail, and commerce. The company receives revenues streams from eBay Enterprise by storefronts such as StubHub.

eBay competes with Alibaba as both companies aim to bring buyers and sellers together. eBay's payment system, PayPal, competes with Alibaba's payment system called Alipay. Despite the success of Alibaba in the domestic market, it will be a challenge for the company to compete with eBay when it comes to offering an auction-based online platform to buyers and sellers in the US and other markets outside China. eBay's brand recognition would make it difficult for Alibaba to take over eBay's customers outside China.

⁴ eBay and PayPal are now separate companies. eBay still makes use of PayPal as its third party online payment system.

JD.com

JD.com, the homegrown archrival of Alibaba, offers a more traditional e-commerce experience. The company sells directly to its customers, actively holds inventory, and is responsible for taking care of its shipping and logistics. In China, JD.com is enjoying the largest volume of direct online sales transactions. JD.com is listed as JD on the NASDAQ in the United States. Although JD.com holds a comparatively smaller share of the Chinese e-commerce market, the company has the benefit of being a direct competitor of Alibaba. Therefore, JD.com is a likely ally of any company that wants to compete with Alibaba.

One of the allies of JD.com is Tencent, a Chinese internet company founded in 1998. Tencent also stands as a competitive threat to Alibaba Group when it comes to internet service portals and online payment systems. Tencent is one of the most used internet service portals in China. WeChat, QQ.com, and Tenpay are some of the online destinations that Tencent operates. Originally, Tencent was involved with entertainment and social media, but its increased popularity caused the organization to pursue progressive growth opportunities. Tencent is listed as Tencent Holdings Limited (0700.HK) on the Hong Kong Stock Exchange.^{xlii}

Baidu

The most popular Chinese internet search engine, known as Baidu, was founded in the year 2000. Baidu's functionality and goals are parallel to that of Google. The company provides search engine capabilities along with other services such as maps and Internet TV. A unique and central component to Baidu's strategy revolves around the promotion of online-to-offline (O2O) services. O2O technology aims to promote consumer demand for physical business locations through mobile, and Internet applications.^{xliii} Baidu is traded on the U.S. NASDAQ as BIDU.^{xliv}

Baidu is trying to eat Alibaba's lunch when it comes to digital advertising. Alibaba's online advertising revenue of about \$16 billion has a market share of 31% in China.^{xlv} Whereas Baidu, as a search engine, holds about 18% of the digital advertising market share in China. Baidu has also joined JD.com to compete with Alibaba, where JD.com benefits by having access to millions of Chinese shoppers. According to analyst estimates, such alliances are going to make it difficult for Alibaba to continue growing at a fast growth rate.

ALIBABA'S CHALLENGES

Escalating Domestic Competition

Domestic competition in China, which once seemed nonexistent to Alibaba, has begun consolidating and developing powerful strategic partnerships. Tencent has combated Alibaba's aggressive acquisition campaign by simultaneously pursuing acquisitions in the Chinese tech market. Chinese e-commerce has been ballooning and is experiencing a move from PC-based to mobile applications. This trend has made the mobile application market an area of interest for both Tencent and Alibaba.^{xlvi} Tencent developed its own messaging service called WeChat, which is widely used throughout China and has been adding e-commerce functionality to the mobile application.^{xlvii}

To compete more aggressively with Alibaba, Tencent invested US\$215 million in JD.com for a 15% stake, effectively forming a significant partnership. According to Tencent's 2017 earnings report, its WeChat app has almost a billion active users in China. A partnership

with Tencent would give a huge advantage to a competitor like JD.com by providing access to the largest group of consumers in the world. Tencent's competencies, in conjunction with JD.com's strong position in the e-commerce and excellent logistics infrastructure, furnish the cooperating organizations with a competitive advantage. Vice President of Forrester Research Bryan Wang elaborated, "JD was competing with Alibaba ... however, the scale was too small. But now with the WeChat platform that's a game changer."^{xlviii}

Aside from Tencent's collaboration with JD.com, the company looks to Baidu and a property firm called Dalian Wanda Group to develop a massive e-commerce platform. Dalian Wanda owns 70% of the venture, while Tencent and Baidu hold 15% each. At the heart of the e-commerce venture lays the dedicated integration of online-to-offline functionality. Dong Ce, the O2O venture's chief executive, declared, "By teaming up with Tencent and Baidu, Wanda will become the biggest online-to-offline e-commerce platform in the world." The joint venture's total investment sums up to \$790 million. "The deal is structured over three years ... the initial investment by the three firms will amount to 1 billion Yuan," said Tencent.^{xlix}

GOVERNMENT REGULATIONS IN CHINA

Recently, Alibaba ran into problems with China's State Administration for Industry and Commerce (SAIC). A scolding statement was publicly released haranguing Alibaba about the excessive presence of fraud on their e-commerce platforms. SAIC announced that in a sampling inspection, 63% of the products sold on Alibaba's online Taobao marketplace were found to be 'unauthentic' – meaning they were fake, discredited or came through unauthorized channels.¹ The SAIC statement also divulged that company employees were facilitating the illegal activity by partaking in commercial bribery. It was suggested that in exchange for financial compensation, employees, with the ability to control merchant placement, would ensure better platform placement. SAIC mysteriously retracted its formal accusation. "We feel vindicated," stated a spokesperson on behalf of Alibaba Group.

For some time Taobao Marketplace has dealt with grievances hinging on the alleged presence of counterfeit goods. This spat between a Chinese government agency and a Chinese-based corporation was distinctive. Xinhua News Agency described this event as "the most heated confrontation between the government and an enterprise in the era of the Internet economy".^{li} Chinese bystanders hypothesized that this kind of government behavior could forecast further harassment for Alibaba. The source of heckling is postulated to arise from China's 'drill down', "on intellectual-property protection in its effort to overhaul the economy, pumping up consumption and reducing reliance on cheap labor, exports, and big-ticket spending projects."^{lii}

While this was not the first instance of discord between a weighty corporation and the Chinese government, Alibaba's defensive positioning is unique. Alibaba drives Chinese e-commerce so significantly that any major persecution would lead to a setback to the Chinese economy. Alibaba maintains deep political connections in the Chinese government because government agencies have a vested interest in the firm's NYSE stock listing.^{liii}

Exposure to International Competition

In comparison to eBay and Amazon, Alibaba's volume of sales and global market share reign supreme. While impressive, and perhaps intimidating for U.S. firms, this does not mean that the company will easily penetrate U.S. e-commerce territories. Alibaba's brand recognition within the U.S. is relatively low in comparison to eBay and Amazon. Similarly, U.S. ecommerce and Internet companies find it extremely difficult to comfortably position themselves in Chinese markets. It is likely that the competing firms will dominate their respective domains. The competitive arena for Alibaba Group and U.S. brands, such as eBay and Amazon, is expected to take place outside their homelands. Foreign developing markets, such as Africa and South America will probably become the targeted untapped regions where these competitors will confront each other.^{liv}

Until an IPO on the U.S. NYSE, Alibaba Group had exclusively centralized its operations within China. The Chinese government acts as a supportive proponent to any domestic company that has potential to grow into a global player in the tech industry. The Chinese government has put certain policies in place to promote local firms, protecting them from foreign competition. Recently, Alibaba acquired Sina Weibo, a social platform like Twitter, as a move into Chinese social networking. Alibaba was able to move into the social media business because global leaders, such as Facebook, were not permitted in China. Alibaba was effectively given an advantageous handicap with the absence of outside competition. A parallel to this protective cultivation of the social media market lies in online video content as well. For instance, YouTube is banned in China, which might allow Alibaba to enter the market at its own leisure.^{1v}

The most important market incubation provided to Alibaba Group, naturally, lies in the ecommerce. While U.S. firms are not restricted from entering the Chinese e-commerce market, the Chinese government makes it difficult on purpose. eBay's operations were overshadowed by the growing success of Alibaba's Taobao Marketplace. Amazon is still persistently engaged in efforts to penetrate the Chinese market. The company has not faced much detrimental government attention, but it is hypothesized that this is due to its lack of success.^{1vi}

LOOKING AHEAD

Stemming from ambitious entrepreneurial dreams, out of his modest Hangzhou apartment, Jack Ma's Alibaba was born. Through the evolution of its core businesses and bustling expansion into new, complementary markets via external acquisition, Alibaba Group commands a vast ecosystem of businesses. In the appraisal of Alibaba's performance, we see a company that expanded exponentially within fifteen years — dominating the Chinese market and launching the biggest IPO in world history.

Currently, the company is facing a variety of pressures and threats. In the domestic domain, competition is mounting fast. Upon venturing outside China, Alibaba has increased its exposure to foreign competitors. Undoubtedly, the company's prosperous growth has been assisted by China's restrictive foreign policies. Alibaba's presence in the US Stock market and adherence to SEC standards inevitably leaves the company more transparent and vulnerable as compared to domestic Chinese companies as well as foreign competition. Despite the past success of Alibaba, the future of this Chinese e-commerce giant remains unpredictable. While Alibaba is equipped with many resources to pursue growth and success, increasing competition in the domestic and international markets will continue to make the company's growth more difficult. Time will tell whether Alibaba will be able to achieve success in the unique markets of the world. However, a closer look at global e-commerce infrastructure and players involved tells that success will depend upon huge efforts and good luck.

REFERENCES

- ^{ix} Ibid.
- ^x Alibaba Group. 2007. Press release, November 6
- ^{xi} Ibid.
- xii Ibid.
- ^{xiii} "Alibaba Group." *Wikipedia, the Free Encyclopedia*. Wikimedia Foundation, Inc.
- xiv Barreiro, Giovanna. "Alibaba: One of China's Greatest Innovators." IPWatchdog. 7 Apr. 2015.
- ^{xv} "Alibaba Group Holding Limited Prospectus." SEC.GOV. U.S. Securities and Exchange Commission, 18 Sept. 2014.
- xvi Bajpai, Prableen. "Alibaba's Top Competitors." Investopedia. 7 Nov. 2014.
- ^{xvii} Ibid.
- xviii Zucchi, Kristina. "Navigating E-commerce: Alibaba, EBay and Amazon." Investopedia. 28 Oct. 2014.
- xix Kent, Jo Ling. "5 Things To Know About The Alibaba IPO." Investopedia. 3 Sept. 2014.
- ^{xx} Ibid. xvii.
- xxi Walraven, Piet. "A Brief History (and Future) of Alibaba.com." TechNode. 22 Jan. 2009.
- xxii Roy, Ranjan. "The Alibaba Group Explained." Slideshare. 21 Apr. 2014.
- xxiii Ibid.
- xxiv Ibid.
- ^{xxv} Ibid. xxviii.
- ^{xxvi} Ibid. xxx.
- xxvii Ibid. xxx.
- xxviii CIW Team. "Alibaba Investment Timeline Since 2005 Before IPO." China Internet Watch. 30 Sept. 2014.
- ^{xxix} De La Merced, Michael J. "Alibaba's Acquisition Strategy: Focused Largely on China and Mobile." 7 May 2014.
- ^{xxx} Ibid.
- ^{xxxi} Ibid. xxxviii.
- xxxii Gough, Neil. "Alibaba Buys Stake in Chinese Web TV Company for \$1.2 Billion." *The New York Times*. 28 Apr. 2014.
- ^{xxxiii} Ibid. xxxviii.
- xxxiv https://www-statista-com.rlib.pace.edu/statistics/277810/retail-revenue-in-china/
- xxxv https://www.forbes.com/sites/greatspeculations/2017/11/21/alibaba-takes-next-step-in-new-retail-with-2-9-billion-investment/#7e159a4e58b1

xxxvi https://finance.yahoo.com/quote/amzn?ltr=1

- ^{xxxvii} Amazon Inc. Amazon.com: Online Shopping for Electronics, Apparel, Computers, Books, DVDs ^{xxxviii} Ibid. xxiii.
- xxxix https://www.statista.com/statistics/258718/market-growth-forecast-of-public-it-cloud-services-worldwide/ xl Amazon Q4 2017 Press Release
- ^{xli} Ibid. xxiii.
- ^{xlii} Ibid. xxiii.
- xliii "O2O commerce (Online to Offline)." *E-commerce Development Mobile Development Company*. TMO Group Shanghai, n.d.
- ^{xliv} Ibid. xxiii.
- xlv eMarketer https://www-statista-com.rlib.pace.edu/statistics/720478/china-market-share-of-online-ad-revenuealibaba/
- xlvi Riddell, Malcolm. "Alibaba Maintains Mobile E-commerce Dominance Through Investments And Acquisitions." Stock Market Insights. Seeking Alpha, 9 Apr. 2015.

ⁱ "How Does 2015 Look For Alibaba?" Forbes. 7 Jan. 2015.

ⁱⁱ Kopytoff, Verne. "Who is Jack Ma? A Profile of Alibaba's Founder in the IPO Spotlight." Fortune. 6 May 2014. ⁱⁱⁱ Ibid.

^{iv} MacLeod, Calum. "Alibaba's Jack Ma: From 'crazy' to China's Richest Man." USA Today. Gannett, 19 Sept. 2014. v Ibid.

vi Ibid. iv.

vii "Alibaba Group History." Alibaba Group.

viii Alibaba Group. 2005. Press release, August 11

- ^{xlviii} Carsten, Paul. "Tencent-JD.com Partnership Goes Straight for Alibaba's Throat." *Reuters*. 10 Mar. 2014.
- ^{xlix} Carsten, Paul. "China's Wanda, Tencent, Baidu to Set Up \$814 Million E-commerce Company." *Reuters*. 29 Aug. 29.
- ¹ Shao, Heng. "What Happens When A Chinese Tycoon Stands Up Against The Government?" Forbes. 29 Jan. 2015. ^{li} Ibid. liii
- ^{lii} Ibid. liii.
- ^{liii} Ibid. xxvii.
- liv Ibid. xxiii.
- ^{1v} Einhorn, Bruce. "How China's Government Set Up Alibaba's Success Businessweek."Businessweek.com. 7 May 2014.
- ^{lvi} Ibid. lix.

^{xlvii} Ibid. xxxviii.

FLIPKART: WINNING IN INDIA?

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CASE DESCRIPTION

In 2019, India's Internet users were expected to deliver double-digit growth, reaching 627 million, driven by rapid Internet expansion in rural areas.¹ This sharp rise is the result of increasing acceptance of online payment gateways, the critical mass of Internet users, the rising middle class with disposable income to spend, and most importantly, the widespread adoption of low-cost smartphones and data plans. India's e-commerce revenue is expected to jump to US \$120 billion in 2020, growing at an annual rate of 51 percent, the highest in the world.² As a result, the number of e-commerce businesses has grown rapidly in India. Flipkart and Amazon are the two main players in the Indian e-commerce industry, each with a 30 percent market share in 2018.³

This case centers on Flipkart, analyzing and exploring its business strategies, ecommerce challenges, value-added differentiation, and, most importantly, its interaction with primary rival, Amazon. Observing the intense competition between Flipkart and Amazon, there remain a few important questions: Will Flipkart be able to keep up with the pace of Indian ecommerce growth? Will Flipkart be able to compete with or beat a giant such as Amazon? Who will be the leader of the Indian e-commerce industry?

The case is rich enough for advanced and graduate students and has been developed to be used in a Business Strategy class, a Competitive Business Strategy class, a Globalization class, or an International Business class. The authors wrote the case in a style that overviews the situation, but intentionally avoids guiding students through specific application questions or any particular analytical framework. The case is designed to be taught in one to one and a half class hours and is expected to require one to two hours of outside preparation by students for reading and analysis.

CASE SYNOPSIS

Flipkart was the brainchild of Mr. Sachin Bansal and Mr. Binny Bansal (not related), both alumni of the Indian Institute of Technology, Delhi. The two Bansals worked for Amazon and eventually quit to start their new venture – Flipkart Online Services Pvt Ltd. – in 2007. The company is headquartered in Bangalore and operates exclusively in India. During its initial years, Flipkart focused only on selling books, but soon started offering other products like electronic goods, air conditioners, stationery supplies, lifestyle products, and e-books.

Flipkart epitomizes the Indian e-commerce industry and has managed to maintain a top position among online shopping platforms in India. Being one of the most studied and researched companies, it is also known as one of the best startups in India. Although Flipkart has managed to retain a top position in the Indian e-commerce industry, the entry of the global giant Amazon has introduced tough competition to Flipkart.

Since Amazon's entry to India in 2013, the global giant has flourished. With its deep pockets and aggressive marketing campaigns, Amazon has almost matched Flipkart, becoming one of the few top e-commerce giants in India. In response, Flipkart has taken many steps to expand its market share and compete with Amazon: Flipkart completed mergers and acquisitions, changed its business model, and launched an innovative and secure payment system. But questions remain. How can Flipkart survive the increasingly tougher and well-capitalized competition? Can it keep up with Amazon's pace of innovation? Can it ever beat Amazon?

INTRODUCTION

The electronic retail market, commonly known as the e-tailing, was hardly known by Indian consumers before Flipkart. Started in Bangalore in 2007, by two former Amazon employees, its online shopping platform offers Indian customers a wide variety of product categories, such as consumer electronics, fashion, and lifestyle products. Bangalore, known to be the Silicon Valley of India, is one of the country's most progressive and well-established cities. Due to governmental regulations on foreign direct investment in business to consumer firms in India, Flipkart is registered in Singapore by a holding company.⁴ Since its inception, the company has grown significantly, with over 100 million registered users, 8 million shipments per month, 100,000 sellers, and 21 warehouses.

Flipkart has acquired several companies, switched its business model, and overcome many challenges to maintain its lead. A major concern the company has been facing from the beginning is convincing Indian consumers to trust online shopping as much, if not more, than traditional brick and mortar stores. After all, the Indian economy has been predominantly cash-based until the government's recent efforts to digitalize the economy.

This tremendous success has illuminated the potential of the Indian e-commerce sector to businesses around the globe, resulting in increased market entrants and competition for the company. Amazon India was launched in 2013, six years after Flipkart's inception, with aggressive marketing campaigns. Amazon has been closing the gap as a top player among the Indian online retailers by total sales. With the entrance of the e-commerce giant, Amazon, in the Indian market, all eyes are on Flipkart to see if the company can sustain its leading position despite Amazon's well-known deep pockets. Many industry experts wonder if Flipkart's homebrewed advantage is enough to triumph over Amazon and win the hearts of Indian consumers.

Sachin and Binny started out using a modest investment of about US \$6,000 to build the Flipkart website. Following in Amazon's footsteps, they began by selling books online. Soon, they began to offer product across many categories including electronic goods, air coolers, air conditioners, stationery supplies, lifestyle products, and e-books (see Exhibits 1 to 3). Since its launch, the company has raised US \$3 billion worth of capital. Now offering over 80 million products across over 80 categories, the company is credited with establishing the e-commerce market in India.⁵ Its website is among the 10 most-frequented websites in India.⁶

Exhibit 1 The Journey of Flipkart



Source: Flipkart.com.

EXHIBIT 2 Flipkart Balance Sh	eet (figures in t	housand US\$*
	March 31, 2018	March 31, 2017
Equity and Liabilities		
Shareholders' Funds		
Share Capital	\$ 103	\$ 77
Other Equity	903,038	560,683
Share Application Money Pending Allotment		
Non-Current Liabilities		
Long-Term Provisions	1,083	806
Current Liabilities		
Short-Term Borrowings	32,482	
Trade Payables	408,041	325,183
Other Current Liabilities	318	821
Short-Term Provisions	1,468	1,460
Total Equity and Liabilities	\$1,404,293	\$905,231
Assets		
Non-Current Assets		
Property, Plant and Equipment	\$ 16,118	\$ 20,045
Capital Work-in-Progress	1,953	1,472
Goodwill	259	259
Intangible Assets	5	18
Investments	81,160	
Loans		211
Other Financial Assets	128,544	17,984
Other Assets	2,255	1,618
Current Assets		
Inventories	320,269	247,787
Investments	228,600	109,509
Trade Receivables	175,634	126,910
Cash and Cash Equivalents	9,987	109,989
Short-Term Loans & Advances	44,588	189,753
Other Current Assets	125,985	28,411
Total Assets	\$1,404,293	\$905,231

*Original data in INR converted at USD \$1 = INR 70.35

Source: Tofler, Business Research Platform.

	March 31, 2018	March 31, 2017		
Revenue from Operations	\$ 3,047,427	\$ 2,169,783		
Other Income	31,132	43,332		
Total Revenue	\$3,078,559	\$2,213,115		
Cost of Materials Consumed				
Purchases of Stock in Trade	\$ 3,363,310	\$ 2,238,566		
Changes in Inventory	72,482	45,907		
Employee Benefit Expenses	47,128	23,691		
Finance Costs	3,322	1,428		
Depreciation and Amortization	8,847	7,988		
Other Expenses	21,942	22,136		
Total Expenses	\$3,372,067	\$2,247,903		
Total Revenue Less Total Expenses	\$ 293,508	\$ 34,788		
Profit From Continuing Operations	(293,508)	(34,788)		
Net Profit/Loss	(293,508)	(34,788)		
*Original data in INR - converted at USD \$1 = INR 70.35				

EXHIBIT 3 Flipkart Income Statement (figures in thousand US\$*)

Source: Tofler, Business Research Platform.

EVOLUTION OF E-COMMERCE IN INDIA

Traditional Indian Retail Culture

Indian consumers have historically preferred shopping at small retail stores rather than online. India has over 14 million small shops, most of which are smaller than 600 square feet in size. India's Foreign Direct Investment (FDI) government regulations are structured to protect these local shops. Traditional retail shops also complement India's cash economy; many people in the country think e-commerce to be overly difficult and time consuming.

The experience of walking into a small Indian retail shop is unlike that of any American retail shop. For Indians, chai (tea) is an integral part of their lives. Businesses, whether small or large, incorporate tea into the shopping experience. Customers walk into a store and expect to be offered a cup of tea or light refreshment with no cost or expectation of purchasing a product. The customer then begins to leisurely look at products offered by the shopkeeper. If a substantial amount of time has passed, the customer may even be offered snacks from nearby food carts. The intent is hospitality—to put the customers first and make sure their needs are met. After selecting items that a customer is interested in purchasing, the negotiation commences. In India, listed prices are a mere suggestion or starting point. People negotiate in practically every transaction, whether it be for individual grocery items, clothes, or even taxi fares.⁷

Growth of E-commerce in India

The e-commerce market in India has undergone exceptional growth, as the majority of the Indian population is gaining access to personal computers, smartphones, tablets, and high-speed Internet services. Demographics rule the destiny of online business in India, where 75 percent of the adults are between 15 and 34 years old, an age group more likely to be proficient at utilizing modern technology, ultimately making digital commerce in India very attractive. According to Bain & Company, e-commerce in India is projected to grow four times faster than the total retail market over the next five years (see Exhibit 4)⁸. Businesses have expanded the e-commerce consumer base by employing strategies such as online shopping websites, establishment of online marketplaces for third-party transactions, business-to-business buying and selling, online data gathering through social media, publishing online newsletters, and retailing novel products to prospective clients.



While the current retail market in India is predominantly served by traditional brick and mortar stores, which form 90 percent of the total market, sales from e-commerce are expected to reach 17.5 percent by 2021.⁹ E-tailing will grow at a fast rate, from the present US \$0.6 billion to US \$76 billion by 2021, which is over a hundredfold. The acceleration in growth will be due to improvements in the market-enabling environment and ecosystem formation for e-tailing. Overall, a larger adaptation of e-commerce in India will offer numerous gains to the Indian economy, aside from the advantages it will bestow upon consumers.¹⁰

BECOMING BIG

In the early years, Flipkart faced many challenges in the e-commerce industry. Flipkart co-founder, Sachin Bansal, admitted in an interview that initially the idea of creating the company seemed absurd and that most of his peers believed Flipkart was a ridiculous idea.¹¹ One key operational challenge was supply chain management; ensuring that goods are punctually delivered is integral to the success of an e-commerce company. Flipkart's logistical infrastructure and supply chain were not initially prepared to handle the volume. Additionally, with its user base growing year after year, maintaining optimal user experience was becoming a challenge.

Nevertheless, New York-based private equity firm Tiger Global Management LLC– Flipkart's biggest investor at the time-believed in the idea and its founders, as did others. With external investment of substantial funds, Flipkart was not only able to improve its supply chain and logistics, but also to expand and grow through several strategic acquisitions (see Exhibit 5).¹²

Year	Acquisitions
2010	WeRead, a social book discovery tool, which extended Flipkart's categories to include music,
	movies, electronics, mobiles, and games.
2011	Chakpak, an online Indian entertainment community. Flipkart acquired the rights to Chakpak's
	digital catalog. Flipkart has categorically said that it will not be involved with the original site
	and will not use the brand name.
2011	Mime360, a digital content platform company that links content owners with content
	publishers.
2012	LetsBuy.com, an Indian e-retailer in electronics. Flipkart has bought the company for an
	estimated US \$25 million. Letsbuy.com was eventually closed down and all traffic to LetsBuy
	diverted to Flipkart.
2014	Acquired Myntra, a fashion e-commerce company, in an estimated \$310 million deal.
2014	Flipkart purchased a majority stake in Jeeves, which offered maintenance, repairs, and product
	guarantees.
2015	Ngpay, which is a mobile payment gateway company.
2015	Appiterate, a mobile marketing start-up, which Flipkart acquired to help strengthen its mobile
	platform.
2015	FXMart is a payment services company.
2016	Flipkart's Myntra acquired rival fashion shopping site Jabong. They both have separate
	identities today but operate under Flipkart's umbrella.
2016	PhonePe, which is a revolutionary payment start-up.
2017	In April, in exchange for an equity stake in Flipkart, eBay agreed to make a \$500 million cash
	investment in Flipkart and sell its eBay.in business to Flipkart; however, according to a
	company statement eBay.in would continue to operate as a separate entity from Flipkart.

Exhibit 5 Flipkart Acquisitions (2010–2018)

Source: A Timeline of Flipkart's Acquisitions. http://techseen.com/2017/04/10/flipkart-acquisition-ebay-weread/

In 2014, Flipkart acquired Myntra, a leading fashion e-commerce company in India. Myntra increased Flipkart's margin in the e-commerce sector, giving the company an important advantage over rivals Amazon and Snapdeal. The acquisition also helped Flipkart, a formerly generic e-commerce company, scale and endure in the ecosystem. Pradeep Udhas, Head of Technology Sector at KPMG India, stated: "Firms lacking scale or a niche presence will find it tough to survive in the sector." Moreover, Flipkart and Myntra could experience enormous cost savings since both companies pursue a similar customer and demographic base.¹³

The co-founders of Myntra believed that the two companies together could better challenge a big player like Amazon. "It was an aligned viewpoint between founders of the two companies," stated Ashutosh Lawania, co-founder of Myntra. Lawania's Myntra co-founder, Mukesh Bansal (not related), said "both companies had a strong cultural fit. Flipkart would bring many things to the table to accelerate Myntra's growth, which would also help Flipkart to fight competition."¹⁴ The fact that both companies had common investors made acquisition easier and helped improve synergies. Following the acquisition, Flipkart's valuation was estimated to be around \$15 billion, five times more than its previous valuation.¹⁵

ORGANIZATION

Flipkart believes that its success is due, in large part, to its employees. Smrithi Ravichandran, Senior Director at Flipkart, stated, "Innovations are only unique for a small duration of time, but its people are what make the business thrive. That killer attitude, that we will do whatever it takes to see this through, which you see from the CEO all the way down to the entry- level staffer—I don't know if it's because we hire people like that, or if people come here and change."¹⁶

The culture at Flipkart is pervasive, and the fact that Flipkart employees call themselves "Flipsters" reflects its strong values, which are to be audacious, customer-focused, unconventional, and beyond standards.¹⁷ The friendly work environment Flipkart created has led to the company being rated the most desirable workplace in India for two years in a row. It surpassed its biggest rival, Amazon, which came in second.¹⁸

In January 2017, Flipkart underwent an organizational restructuring by creating an umbrella over all of its units, calling it Flipkart Group Organization. Through this process, founder and then CEO of Flipkart, Binny Bansal, became the Group CEO. Bansal planned to concentrate on constructing a high-growth portfolio of new businesses and on capital allocation across group companies. Kalyan Krishnamurthy, who joined Flipkart in June 2016 from Tiger Global Management as head of the Category Design Organization, became the CEO of Flipkart. Krishnamurthy oversaw customer experience, talent management, and overall profit and loss for Flipkart.

THE FLIPKART GAME CHANGER – CASH ON DELIVERY

Infosys co-founder Nandan Nilekani stated in his post in the Economic Times of India, "One of the reasons Flipkart took off was that they brought in cash on delivery,"¹⁹ people pay for goods when they are delivered rather than in advance. Many Indians did not have a method for completing online transactions, since India had traditionally been a cash-based economy, so this innovation was a game changer for Flipkart. He went on to say that the cash on delivery (COD) system gave Flipkart a competitive edge over its rivals, particularly over foreign businesses that did not recognize the problem with digital payments (see Exhibit 6). Moreover, when rivals did catch on, they were forced to adjust to the COD system due to its popularity among Indian consumers.²⁰





Source: Nielsen Global Connected Commerce Survey.

When Flipkart introduced COD in 2010, only 0.5 percent of the population in India utilized credit cards and 7.5 percent of the population used the Internet.²¹ The COD service enabled Flipkart to become remarkably popular and made online shopping more attractive and trustworthy for its customers. Suddenly, everyone from a college student without a bank account to a person from a remote town who did not own a debit card was able to purchase goods with just a click.

Factors that aided the growth of Cash on Delivery payments in India included:

- Convenience
- Experience with cash payments
- Population of unbanked consumers
- Small amount of credit/debit card users
- Scarcity of secured payment gateways
- Consumer hesitancy in online payments, due to lack of trust
- Apprehension of online scams

CONSUMER CONVENIENCE

Flipkart continued increasing its customer base with the announcement of an easy return policy. Many consumers in India were reticent to shop online because they want to be able to physically see and examine the products. In order to address this, Flipkart offered a no-questions-asked return/exchange policy, wherein customers could return goods that did not meet their expectations. Making purchases online through Flipkart became extremely appealing to Indian consumers because brick and mortar stores never offered the same deal.

Flipkart also recognized that mobile network connectivity was not homogeneous throughout India, prompting the creation of Flipkart Lite, similar to Flipkart yet designed for a mobile experience. The mobile browser, developed within 45 days by five engineers, was easier to use while in areas with an inconsistent network. In addition, Flipkart Lite enabled users to access shopping search history. Flipkart Lite was considered very innovative and other companies such as LinkedIn began using similar technology.²²

FLIPKART BUSINESS MODEL

The introduction of a marketplace system changed the way Flipkart conducted its business, transforming its website portal into a "virtual mall" allowing consumers to shop different sellers and brands on a single platform. No longer required to maintain an inventory of its own, Flipkart greatly reduced overhead, while retaining control of the sales, with delivery completed by Flipkart's logistics and supply chain division. The model can be compared to eBay India, Tradus, or Amazon. Since foreign companies in India are restricted from multi-brand e-tailing, Flipkart sells its products through WS Retail, a private limited e-commerce company in India (see Exhibit 7).





Source: What is the difference between the marketplace model and the warehousing model related to e-commerce? *Quora*, October 9, 2014. https://www.quora.com/What-is-the-difference-between-the-marketplace-model-and-the-warehousing-model-related-to-e-commerce

Online marketplaces have several sources of revenue. A listing fee is charged to the seller. This charge can be one-time or on an annual basis. Sellers who wish to feature their products can pay for advertisements on the site. Sales commissions provide Flipkart a profit on each purchase transaction. The commission charged by online marketplaces varies by product type. In June

2019, Flipkart revamped its fee structure, significantly reducing the percentages that sellers must pay. The timing of this change suggests it is a strategic move to inspire seller loyalty, as competition heats up. Amazon is doubling down on investments in India, after finally admitting defeat and pulling out of China.²³

FLIPKART COMPETITORS

Flipkart has faced several competitors throughout its decade-long battle in the Indian ecommerce industry. The major competitors included Myntra, Jabong, Snapdeal, eBay, Paytm, and its strongest competitor, Amazon. Flipkart remained in the spotlight in the Indian ecommerce industry through frequent mergers and acquisitions, acquiring most competitors and increasing market share in an effort to compete with Amazon.

Paytm

Paytm, an acronym for Pay Through Mobile, is the largest mobile payment platform in India. It is owned by One-97 Communications, and its headquarters is located in Uttar Pradesh, India. Back in 2010, the company initially offered mobile recharge and utility bill payments. Today, Paytm provides a full marketplace through its mobile apps. The company has over 100 million registered users and gets approximately 60 million orders per month. Paytm offers the option of recharging a secure online wallet, Paytm-cash, enabling customers to shop from any location.²⁴ Paytm can also be accessed from a browser, and the Paytm app is accessible on mobile devices compatible with Android, Windows, and iOS operating systems. Paytm has attracted many notable investors, including Tata of India and Alibaba Group of China. Transactions completed on Paytm are completely free with no concealed charges.²⁵

Paytm Mall has over 17 fulfillment centers across the country and over 40 courier partners for sellers.²⁶ In 2017, Flipkart cut the commission that it collected from sellers to combat Paytm Mall. Reliance Capital invested about \$41 million in Paytm, increasing valuation for Paytm's parent company, One-97 Communications. Paytm's valuation is estimated to be approximately \$5 billion, whereas Flipkart's is \$5.39 billion.²⁷ In March 2019, Paytm took on Amazon and Flipkart as it launched its subscription-based loyalty program, Paytm First. Through this program, the company aims to offer exclusive benefits over and above the regular Paytm cashback offer, while looking to promote further usage (of its platforms) and to increase customer retention.²⁸

Snapdeal

Snapdeal, founded by Kunal Bahl and Rohit Bansal (not related), is another rapidly developing e-commerce company in India. Snapdeal evolved from a group coupon business to an online marketplace that eventually turned into a billion-dollar company. Snapdeal has a relatively young workforce, with an average age of about 25 years. Snapdeal's values include innovation, change, openness, honesty, and ownership, which have propelled the company to great success. Snapdeal's impressive growth is the result of relentless determination to prosper as the best B2C (Business to Customer) marketplace in India.

Snapdeal's most important success factor was investment by Vani Kola, a venture capitalist. Snapdeal began as an offline business and eventually went online in 2010. In November 2011, the founders of Snapdeal were inspired by the success of Jack Ma's Alibaba and wanted to develop a somewhat analogous business. Hence, Snapdeal exited the deals

business and moved into the online marketplace. The decision was risky since Snapdeal held a large market share in the deals business. However, Snapdeal's value is now estimated to be around \$1 billion, and, currently, there are more than 50,000 sellers and approximately 5 million products on Snapdeal.²⁹ The company has grown through acquiring several companies since 2014 (see Exhibit 8).

Date	Acquisitions		
April 2014	Fashion products discovery site, Doozton.com		
December 2014	Gifting recommendation site, Wishpicker.com		
March 2015	E-commerce management software and fulfillment		
	solution provider, Unicommerce.com		
April 2015	Mobile-payments company, FreeCharge.com		
May 2015	MartMobi, an innovative mobile technology company		
June 2015	Letsgomo Labs, a mobile-focused technology company		
September 2015	Reduce Data, a programmatic display advertising		
	platform		
February 2016	TargetingMantra, a tech marketing company		
July 14, 2016	GoJavas, a supply chain solutions company		

Exhibit 8 Snapdeal Acquisitions (2014–2019)

Source: Crunchbase. <u>https://www.crunchbase.com/organization/snapdeal/acquisitions/acquisitions list#section-acquisitions.</u>

Amazon India

Amazon, founded by Jeff Bezos in 1994, is an American e-commerce company based in Seattle, Washington. It is the largest Internet-based company in the United States. Amazon started as an online bookstore, but shortly diversified, offering compact discs, VHS, video and MP3 downloads and streaming, software, video games, electronics, apparel, furniture, food, toys, and jewelry. Amazon has individual retail websites for countries all over the world, including: United States, United Kingdom and Ireland, France, Canada, Germany, The Netherlands, Italy, Spain, Australia, Brazil, Japan, China, India, and Mexico. Amazon provides international shipping to other specific countries for selected products. In June 2013, Amazon started its Amazon India marketplace. One month later, Amazon publicized that it would invest US \$1.85 billion in India to expand its business, seemingly in response to news that Flipkart decided to invest US \$1 billion in expansion.³⁰

Amazon came into the Indian market with the reputation of being the king of ecommerce. Initially, Amazon's success in India was uncertain, as Indian consumers are considerably different from the rest of the world. Amazon lags behind Asian e-commerce companies such as Alibaba, overwhelmed by competitors in China, with no indication of catching up. Amazon believes that the failure in China was because the company did not spend enough. That is why Amazon is investing more in India.³¹ Amazon's CEO Jeff Bezos enlisted Amit Agarwal to lead Amazon's India business. Agarwal told Forbes, "Amazon's entry into India is big, we can add significant customer value, and we can generate significant cash flows."³² Amazon already committed to spend \$5 billion for Amazon India, and Bezos has indicated additional investments will be made as time goes by.³³

One of the main reasons why Amazon stands out among Flipkart's competitors is because Amazon is customer-centric, similar to Flipkart's business strategy. Amazon has an edge in terms of reputation and brand recognition. The company is admired and well-known for providing excellent customer service internationally. People are confident making purchases with Amazon due to product replacement offerings and after-sales services.³⁴

Flipkart has expanded by mergers and acquisitions. It has been trying to become selfsustained by developing its own payment gateway and logistics services. However, Amazon is also acquiring companies in India, although not on as grand a scale as Flipkart. For instance, in 2016, Amazon acquired Emvantage Payments Pvt. Ltd., an Indian payments company, to facilitate online payments.³⁵

Home-Brewed Company versus International Giant

Flipkart definitely used home advantage by adapting to the Indian environment quickly. In 2015, Flipkart launched Flipkart One Stop (F-1 Stop) to provide sellers services such as training, registration, cataloguing, packaging, and financial assistance. The support services aim to help first-time merchants get their businesses up and running online.³⁶

Even though Amazon only entered the Indian e-commerce market in 2013, it aggressively marketed itself to catch up. Amazon launched the Chai Cart campaign to connect with small sellers. As mentioned earlier, India has a very strong chai (tea) culture, and Amazon found a way to capitalize on it. A chai cart operated by Amazon associates would move around various Indian markets and share with local sellers the advantages of online selling, over a cup of chai. It created a safe space for local sellers to raise questions and concerns about growing their businesses online. It also helped create brand recognition. Within four months, the Amazon Chai Cart team traveled 9,495 miles across 31 cities, served 37,200 cups of tea and connected with more than 10,000 sellers. The campaign was innovative and successful with Indian consumers.³⁷

LOOKING AT THE FUTURE – FLIPKART'S PHONEPE APP

India is swiftly evolving into a digital giant (see Exhibit 9). The increasing use of smartphones and Internet access has enabled Indian consumers to remain continuously connected. Consumer behavior and preferences are changing. This is only the beginning of digital payments in India, since a large portion of the population remains an untapped market. Digitization of cash will be faster over the next few years. In addition, non-cash payment transactions are estimated to surpass cash transactions by 2023. Overall, the proportion of cash transactions in the total consumer spending in the country has dropped from 78 percent in 2015 to 68 percent in 2017.³⁸

It is projected that the total payment transactions through digital payment tools will be around US \$500 billion by 2020. Person to merchant (P2M) transactions compelled by digital payments at the physical point of sale, trailed by business to business (B2B) and peer to peer (P2P) transactions, are predicted to be key suppliers of growth.³⁹





Source: Digital Payments 2020—The Making of A \$500 Billion Ecosystem In India, The Boston Consulting Group & Google.

Flipkart currently offers several payment options, which include cash on delivery, Internet banking, or payment by credit and debit cards. Flipkart's most recent offering, the PhonePe wallet app, developed in partnership with YES Bank, is revolutionizing payments. PhonePe enables customers to connect bank accounts securely to their smartphone through the encrypted software of the National Payments Corporation of India, which makes PhonePe especially attractive to Indian consumers. In the earlier stage of its launch, Flipkart's cash on delivery option drove success, as Indian consumers were not ready to commit to online payments. However, with the PhonePe app, Flipkart offers secure transaction options for almost all types of payment methods. The PhonePe app permits users to carry out transactions at no cost and users can exchange or return items to Flipkart and receive reimbursement in the PhonePe wallet.⁴⁰

PhonePe is based on the government-backed Unified Payment Interface (UPI) platform. UPI permits consumers to transfer money between any two parties' bank accounts via secure unique identifiers. This means that the exchange of bank account details is not necessary. This makes it stress free to send or receive money. In addition, customers can pay straight from their bank account to both online and offline merchants. It eliminates the necessity of entering credit or debit card details or a one-time password.

INDIA: THE E-COMMERCE FRONTIER

Amazon may be the largest online e-retailer in the world but it is not yet the market leader in India. While that honor still belongs to Flipkart, Amazon is determined to conquer India. Amazon has a multibillion-dollar plan to dive into the online grocery business in India. Reduction in government restrictions allows online retailers to sell domestic products such as processed foods and groceries directly to consumers. The Ministry of Commerce and Industry is prepared to let Amazon create a nationwide network to stock and distribute such groceries.

Flipkart is choosing instead to focus on artificial intelligence (AI). Flipkart's research team is based in the United States, working at F-7 Labs, located in Silicon Valley. The company believes that investing more in AI will help Flipkart advance its business processes and customer interactions. "There is an understanding at Flipkart that, to deliver at scale, we will need artificial intelligence and that the Valley is the place where the cutting-edge research is being done," says Mihir Naware, Director, Product Development at F-7 Labs.⁴¹

Amazon can also afford to undercut Flipkart by offering a wider variety of services and more discounts; this may be enough to attract Indian consumers used to the tradition of negotiating prices. On the other hand, Indians are known to be nationalistic, and Flipkart has utilized this to their advantage. Other domestic start-ups have sought government intervention to give Indian businesses a formal edge over competition. While protectionist policies have helped create world-class technology companies like Alibaba, Tencent, and Didi in China, with Indian Prime Minister Narendra Modi courting foreign capital from the Silicon Valley companies, protectionist policies do not seem to be a realistic scenario in India at this point of time.⁴²

The battle is intense because the stakes are high. What makes India so attractive is its huge population and growing consumer market. Growing Internet and mobile permeation are increasing the use of online payments. The e-commerce sector in India is expected to grow by four times its current size and is anticipated to go over \$100 billion within the next five years. If so, e-commerce in India has the potential to add more than 4 percent to India's GDP.⁴³ Mobile commerce (m-commerce) is developing rapidly as a steady complement to the e-commerce industry. The government's "Digital India" project intends to promote the sector by bringing Internet and broadband to secluded corners of India. Supported by an investment of approximately \$17 billion, this initiative will help make India a more connected economy. It will lead to additional investment in electronics manufacturing, creating millions of jobs.

During this time, the American multinational retailer, Walmart, had been struggling to come up with a play for India. However, that ambiguity ended in August 2018, when Walmart invested \$16 billion to acquire a 77 percent stake of Flipkart. While Flipkart's management team would lead the India business, Walmart would finally have a platform for business in India. Walmart would also infuse \$2 billion into Flipkart to grow the business.⁴⁴

In November 2018, three months after its celebrated acquisition by Walmart and following a probe into an allegation of "serious personal misconduct," Flipkart Group's CEO Binny Bansal left the company.⁴⁵ Flipkart underwent a management reshuffle, where several top and mid-level executives moved to new roles, and Kalyan Krishnamurthy became Group CEO. Krishnamurthy looked to tighten firm performance across all units and reduce Flipkart's reliance on smartphones, which continues to generate more than 50 percent of Flipkart's overall sales.⁴⁶

Walmart remains extremely optimistic about Flipkart. Walmart's President and CEO Doug McMillon said, "I got to visit our teams in India and China a few weeks ago. I continue to be excited about the opportunity I see with Flipkart and PhonePe. I'm impressed with the team and their ability to innovate for customers with speed."⁴⁷ The company said that its plans for India includes investments that "support national initiatives and will bring sustainable benefits in jobs creation, supporting small businesses, supporting farmers, supply chain development, and reducing food waste."⁴⁸ Walmart is investing in the future of Flipkart, however, Walmart has not mentioned a hands on management approach yet. Armed with a \$2 billion USD equity investment from the new owners, Flipkart should be ready to compete.⁴⁹

ENDNOTES

¹ IBEF. 2019. E-commerce industry in India. India Brand Equity Foundation. March, <u>https://www.ibef.org/industry/ecommerce.aspx.</u>

- ³ Koetsier, J. 2018. Report: Amazon India worth \$16B with 30% market share, will hit \$70B GMV in 2027. *Forbes*, May 18, <u>https://www.forbes.com/sites/johnkoetsier/2018/05/18/report-amazon-india-worth-16b-with-30-market-share-will-hit-70b-gmv-in-2027/#22f869b56b95.</u>
- ⁴ Sen, S. 2013. Bansal's divest risk, move Flipkart to Singapore for growth. *Economic Times*, February 13, <u>https://economictimes.indiatimes.com/blogs/Whathappensif/bansal-s-divest-risk-move-flipkart-to-singapore-for-growth/.</u>

⁵https://www.flipkart.com/about-us?otracker=undefined_footer_navlinks.

- ⁶ Top Sites in India. 2019. The sites in the top sites lists are ordered by their 1-month Alexa traffic rank.
- http://www.alexa.com/topsites/countries/IN.
- ⁷ Ferriss, T. 2017. How to negotiate like an Indian—7 rules. Huff Post, December 7. <u>https://www.huffpost.com/entry/how-to-negotiate-like-an_n_79602</u>.
- ⁸ Fabre, C., et al. 2019. E-commerce in MENA: Opportunity beyond the hype. February 19, https://www.bain.com/insights/ecommerce-in-MENA-opportunity-beyond-the-hype/.
- ⁹ Financial Express. 2018. Retail: Why bricks and mortars are still relevant. Financial Express, August 17, <u>https://www.financialexpress.com/industry/retail-why-bricks-and-mortars-are-still-relevant/1283071/.</u>
- ¹⁰ Mehra, Atin, IMT, Ghaziabad. 2015. E-commerce industry in India.
- ¹¹ Soni, A. 2014. 7-yr-old Flipkart's evolution through the eyes of Sachin Bansal. YourStory, August 6, <u>https://yourstory.com/2014/08/sachin-bansal-flipkart-journey.</u>
- ¹² Techseen Bureau. 2017. A timeline of Flipkart's acquisitions. Techseen, April 10, https://techseen.com/2017/04/10/flipkart-acquisition-ebay-weread/.
- ¹³ Borpuzari, P. 2014. Flipkart acquires Myntra: Here is why it makes sense. Economic Times, May 22, <u>https://economictimes.indiatimes.com/tech/internet/flipkart-acquires-myntra-here-is-why-it-makes-sense/articleshow/35471764.cms.</u>
- ¹⁴ Ghosh, D. 2016. Bansal's next adventure: CEO of India's largest fashion retailer makes an exit. Forbes Asia, April 27, 2016, <u>https://www.forbes.com/sites/forbesasia/2016/04/27/bansals-next-adventure-ceo-of-indiaslargest-fashion-retailer-makes-an-exit/#1db83bdb6372</u>.
- ¹⁵Press Trust of India. 2015. E-commerce to change face of Indian merchandise business: Ratan Tata. News18, July 15, <u>https://www.news18.com/news/business/e-commerce-to-change-face-of-indian-merchandise-business-ratan-tata-1020869.html</u>.
- ¹⁶Money Control. 2017. How Flipkart's 8,000-plus team is working hard to stay ahead of Amazon. Moneycontrol.com, May 8, <u>https://www.moneycontrol.com/news/business/startup/how-flipkarts-8000-plus-team-is-working-hard-to-stay-ahead-of-amazon-2273541.html.</u>
- ¹⁷ Be Among The Ambitious. <u>http://www.flipkartcareers.com/welcome.php</u>.
- ¹⁸Gilchrist, K. 2019. These are the best companies to work for in India in 2019, according to LinkedIn. CNBC, April 2, <u>https://www.cnbc.com/2019/04/03/linkedin-top-companies-to-work-for-in-india-2019-flipkart-amazonoyo.html.</u>
- ¹⁹Nilekani, N. 2016. Flipkart took off because it brought in cash on delivery: Nandan Nilekani. Economic Times, April 4, <u>https://economictimes.indiatimes.com/small-biz/startups/flipkart-took-off-because-it-brought-in-lash-on-delivery-nandan-nilekani/articleshow/53533483.cms.</u>

- ²¹ World Bank. http://www.worldbank.org/
- ²²Dubey, T. 2017. These disruptions made by Flipkart over ten years helped it lead the e-commerce sector. Business Insider, June 1, <u>https://www.businessinsider.in/These-Disruptions-made-by-Flipkart-over-Ten-Years-Helped-it-Lead-the-E-commerce-Sector/Cash-on-Delivery-2010/slideshow/58951487.cms.</u>
- ²³ Business Today. 2019. Flipkart cuts commissions. June 11, <u>https://www.businesstoday.in/current/corporate/flipkart-cuts-commissions-shipping-fee-seller-numbers-</u> <u>rates-effective-june-24-e-commerce-company/story/355192.html.</u>
- ²⁴ Paytm Website. https://paytm.com/about.
- ²⁵ Paytm Success Story. <u>https://successstory.com/companies/paytm</u>.

² Ibid.

²⁰Ibid.

- ²⁶ PTI. 2017. Paytm launches Paytm Mall marketplace against Flipkart, Snapdeal and Amazon. Hindustan Times, February 27, <u>https://www.hindustantimes.com/business-news/paytm-launches-paytm-mall-marketplace-against-flipkart-snapdeal-and-amazon/story-PepJDrXNSNYi3dcxnTkqXO.html.</u>
- ²⁷Choudhary, K. 2017. At \$5 billion, Paytm is close to Flipkart in value. Business Standard, March 8, <u>https://www.business-standard.com/article/companies/at-4-bn-paytm-close-to-flipkart-in-value-117030700830 1.html.</u>
- ²⁸ Bhalla, Tarush. 2019. Paytm takes on Amazon, Flipkart as it launches subscription-based loyalty programme 'Paytm First.' YourStory, March 5, <u>https://yourstory.com/2019/03/paytm-first-launch-amazon-flipkartrm5oijkglg.</u>
- ²⁹Choudhary, K. 2017. At \$5 billion, Paytm is close to Flipkart in value. Business Standard, March 8, <u>https://www.business-standard.com/article/companies/at-4-bn-paytm-close-to-flipkart-in-value-117030700830 1.html.</u>
- ³⁰ Economics of Business and Labor. <u>http://www.encyclopedia.com/social-sciences-and-law/economics-business-and-labor/businesses-and-occupations/amazoncom.</u>
- ³¹Walt, V. 2015. Amazon invades India. Fortune, December 28, <u>http://fortune.com/amazon-india-jeff-bezos/.</u>
- ³²D'Onfro, J.2015. Amazon's next big challenge: Winning India. Business Insider, July 24, <u>https://www.businessinsider.com/amazon-growth-in-india-2015-7.</u>
- ³³Sen, A. 2017. Jeff Bezos hints at more investments, says Amazon fastest online marketplace in India. Livemint, April 29, <u>https://www.livemint.com/Companies/ZFlqjOUtZN3FFYpmpdlk2J/Jeff-Bezos-hints-at-more-investments-says-Amazon-fastest-on.html.</u>
- ³⁴Schneider, L. 2018. Overview of Amazon.com's history and workplace culture. Balance Careers, February 18, <u>https://www.thebalancecareers.com/amazon-com-company-research-2071316.</u>
- ³⁵Rao, L. 2016. Amazon just acquire this payments company. Fortune, February 16, http://fortune.com/2016/02/16/amazon-acquisition-india/.
- ³⁶Agarwal, S. 2015. Flipkart to offer merchant support services. Business Standard, August 20, <u>https://www.business-standard.com/article/companies/flipkart-to-offer-support-services-to-merchants-through-f-1-stop-115081900875_1.html.</u>
- ³⁷Joshi, O. 2016. Amazon Chai Cart: Winning sellers' hearts and now a GOLD award, all over a cup of tea. Amazon Services, April 7, <u>https://services.amazon.in/resources/seller-blog/amazon-chai-cart-won-gold.html</u>.
- ³⁸ Roongta, P., and A. Shah. 2018. The top five trends in India's digital payment landscape. Livemint, October 1, <u>https://www.livemint.com/Technology/ACHEI1t6mB34c4xM5DiTsN/The-top-five-trends-in-Indias-digital-payment-landscape.html</u>.
- ³⁹ Digital Payments 2020 The Making of a \$500 Billion Ecosystem, The Boston Consulting Group & Google.
- ⁴⁰ Flipkart Phone App. <u>https://stories.flipkart.com/phonepe-app-flipkart/</u>.
- ⁴¹BI India Bureau. 2017. For strong Silicon Valley presence, Flipkart is focusing on products based on Artificial Intelligence. Business Insider, June 1, <u>https://www.businessinsider.in/For-strong-Silicon-Valley-presence-Flipkart-is-focusing-on-products-based-on-Artificial-Intelligence/articleshow/58941338.cms.</u>
- ⁴² Dalal, M. 2016. Flipkart, Ola look for govt protection against US rivals that once inspired them. Livemint, December 8, <u>https://www.livemint.com/Companies/hwSiftzz7F8KWPmBan26II/Flipkart-Ola-look-for-govt-protection-against-US-rivals-tha.html</u>.
- ⁴³ Oberoi, T. 2016. Decoding the future of B2B e-commerce in India. India Retailing, October 12, <u>https://www.indiaretailing.com/2016/10/12/retail/decoding-future-b2b-e-commerce-india/.</u>
- ⁴⁴ Walmart news. 2019. https://news.walmart.com/2018/08/18/walmart-and-flipkart-announce-completion-ofwalmart-investment-in-flipkart-indias-leading-marketplace-ecommerce-platform.
- ⁴⁵ Bahree, M. 2018. Flipkart CEO Binny Bansal resigns after probe into personal misconduct. Forbes. November 13, <u>https://www.forbes.com/sites/meghabahree/2018/11/13/flipkart-ceo-binny-bansal-resigns-after-probe-into-personal-misconduct/#327aaad45ac3.</u>
- ⁴⁶ Sen, A. 2018. Flipkart conducts first major management reshuffle since Walmart buyout. Livemint, December 7, https://www.livemint.com/Companies/WRMRUEk0apbJsRdrGCnGCI/Flipkart-conducts-first-major-management-reshuffle-since-Wal.html.
- ⁴⁷ Poojary, T. 2019. Excited about opportunity with Flipkart and PhonePe: Walmart CEO. YourStory, May 16, <u>https://yourstory.com/2019/05/walmart-financial-results-flipkart-phonepe-india</u>.
- ⁴⁸ Russell, J. 2018. Walmart completes its \$16 billion acquisition of Flipkart. TechCrunch, August 20, <u>https://techcrunch.com/2018/08/20/walmart-flipkart-deal-done/.</u>
- ⁴⁹ Ibid.

THE IMPACT OF BUSYNESS, MOTIVATION, AND MENTORING ON GPA

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ABSTRACT

This is a study of the impact of three constructs on the grade point average (GPA) of students at a large open-enrollment university in the Western United States. As part of a regular major survey given to students at a large Western University, 435 students completed surveys used in this project. The three constructs measured were busyness, motivation, and mentoring. Busyness included hours worked, family responsibilities and course load. Mentoring included access to advisors and family members that had completed college degrees. Motivation was measured as a composite of questions related to an overall perception of the university and how positive or negative perceptions were to general education courses. However, the study showed that only motivation had a significant impact on GPA. The impact of this research is that it questions the assumptions that first-generation, non-traditional, minority, and less-prepared students are significantly handicapped in their college experience. Once motivation is separated from access to mentoring, motivation alone emerges as the significant predictor of college success.

Key Words:

Student success, GPA, mentoring, student motivation, student busyness, general education.

A STUDY OF THREE CONSTRUCTS ON GPA: BUSYNESS, MOTIVATION, AND MENTORING

Student success is at the heart of almost every conversation in higher education. Success can be defined a number of ways; it may involve GPA, first- to second-year retention, persistence to graduation, post-graduation employment (Adelman, 1999; Bir & Mondrail, 2015; Burd, 2004; Burns, Ellegood, Bernard Bracy, Duncan, & Sweeney, 2019; Jennings, Lovett, Cuba, Swingle, & Lindkvist, 2013; Jones-White, Radcliffe, Huesman, & Kellogg, 2010; Porter, 2003; Soria, Fransen, & Nackerud, 2014; van Rooij, Jansen, & van de Grift, 2018), educating the whole person (Handstedt, 2016), or even thriving, defined as "being intellectually, socially, and psychologically engaged in the college experience" (Schriener, 2018, p, 10). Students themselves define success primarily as academic achievement (e.g., grades and career-related activities)

although they also identify social and residential, life management, and academic engagement as important outcomes (Jennings et al., 2013).

Administrators, faculty, and staff spend a considerable amount of time identifying ways in which students can be successful and factors that impact their success. As participation in higher education has widened, more attention has focused on success for increasingly diverse populations of learners. In particular, institutions regularly examine how to best serve their firstgeneration, non-traditional, minority, and less-prepared students. Adult enrollments, for example, are increasing—38% of post-secondary students in the United States are over the age of 25 and 25% are over the age of 30 (Kelly & Strawn, 2011; Soares, 2013). Indeed, many learners in today's colleges and universities are employed, raising families, and studying part-time or online (Choy, 2002), suggesting the need for innovations in teaching and learning.

Concerns about retention and persistence, in particular, are paramount to not only academic and student affairs leaders, but to non-profit educational organizations (e.g., the Lumina Foundation, the Bill & Melinda Gates Foundation), which sponsor and fund initiatives to improve completion. Thirty percent of students in the United States drop out during or after their first year and 40% of those beginning a bachelor's degree fail to complete (Morshed, 2016).

Certainly these rates differ depending on context, admission standards, and institutional type, but higher education is being pressured from a variety of sources, especially state and federal governments, to increase retention and graduation rates (College Board, 2010; Government Accountability Office, 2012; Dougherty & Reddy, 2011; Dougherty, Natow, Bork, Jones, & Blanca, 2013) although some have warned this comes at the cost of ignoring the extensive reforms needed to improve learning outcomes (Bok, 2017). Indeed, employers continue to observe that recent college graduates are lacking proficiencies in oral and written communication, critical thinking and problem-solving, ethical decision-making, teamwork, and other skills that cut across disciplines (Hart Research Associates, 2016).

This study examined factors that impacted GPA for students at a large, regional, open admission university. Although GPA does not necessarily predict retention or graduation, it is one measure of success (Bir & Mondrail, 2015; Burns et al., 2019; Jennings et al., 2013; Soria, Fransen, & Nackerud, 2014; van Rooij, Jansen, van de Grift, 2018). The study compared three constructs—busyness (e.g., employment, marital status, family responsibilities, volunteerism), motivation (specifically related to general education courses), and mentoring (e.g., where students go for help). While busyness and mentoring have previously been associated with various aspects of student success as has motivation, this study focused on a specific aspect of motivation not previously studied—motivation for taking general education courses.

The three variables reflect factors that might be expected to be relevant to both nontraditional and traditional students. Busyness, for example, impacts non-traditional students (25 years of age and above) as well traditionally-aged students who work part- or full-time or have families. Mentoring plays a key role in success for all students, and in particular those who are first-generation or historically underrepresented in higher education, as all need a sense of belonging and connectedness to their new environments (Astin, 1993; Tinto, 1987, 1993, 1999). Similarly, academic integration is important to success (Astin, 1993; Tinto, 1987, 1993, 1999). This can occur through one's studies and academic interests. The current study focuses on the role of general education courses in academic motivation, and consequently, on GPA.

One focus of this research is to disaggregate motivation from the factors of busyness and mentoring. A motivated person may do well at school despite being first-generation, a non-traditional minority, or simply busy. Likewise, an unmotivated student may perform poorly despite having the advantages of ample time and the example of college graduates in the family.

LITERATURE REVIEW

Academic achievement is a much-studied topic. With increasing numbers of students balancing multiple responsibilities, particularly work, study, and family, one might expect that level of busyness would have a negative impact on GPA. Motivation for learning, particularly in terms of taking required courses that may not be of high interest or be perceived as relevant (e.g., general education), might also be expected to affect achievement. This applies both to those lacking cultural capital in higher education such as first-generation students who may not understand the purpose of general education and how it helps develop the broad skills valued by employers (Hart Research Associates, 2016), as well as students with a clear focus on a particular major who may have limited interest in other subjects. Similarly, increasing numbers of first-generation and underprepared students seeking degrees suggest the need for mentoring to facilitate informed decision-making. Indeed, making academic and social connections is critical to retention for all students (Astin, 1993; Tinto, 1987, 1993, 1999). We review each of these areas of research—busyness, motivation, and mentoring—which form the hypotheses for the study.

Busyness

Busyness has been examined in several ways, the most prominent of which is work and family responsibilities as this may interfere with academic success. Approximately 58% of students work 20 or more hours per week, 42% are living in poverty, and 26% are raising children (Lumina Foundation, n. d.). The need for university students to work to make ends meet is a worldwide trend, at least in Western countries (Callender, 2008; Beerkens, et al., 2010; Richardson et al., 2013). Financial obligations accompanied by work and family responsibilities account for 38% of students withdrawing from school in the first year while only 11% of those categorized as low income complete in six years (Lumina, n. d.). However, work can provide valuable experience leading to post-graduation employment (Beerkens, Mägi, & Lill, 2010).

Research findings exploring the effects of part-time work on grades and GPA vary. Some have determined positive effects (Ma, 1984; Volkwein & Strauss, 2002), others no effect or minimal effect (Beerkens et al., 2010; Derous & Ryan, 2008; McInnis & Harley 2002; Nonis & Hudson 2006; Richardson, Kemp, Malinen, & Haultain, 2013), and still others a negative effect, particularly when students work more than a certain number of hours per week (Applegate & Daley 2005; Bartolj & Polanec, 2018; Brennan et al. 2005; Callender, 2008; DeSimone 2008; Huie, Winsler, & Kitsantas, 2014; Hunt, Lincoln, & Walker, 2004; Kalenkoski & Pabilonia

2008; McVicar & McKee. 2001; Stinebrickner & Stinebrickner 2003). In some studies, the number of hours worked has not been a factor (e.g., Callender, 2008).

These studies demonstrate that while employment does have an effect on GPA, other variables can moderate the impact. In one study, course satisfaction mediated the impact of working (Ma, 1984); in another, working fewer hours and by choice had a mediating effect (Derous & Ryan, 2008). Job type (Derous & Ryan, 2008), degree of connectedness to academic coursework (McKenzie & Schweitzer, 2010), and less demanding jobs may also have a moderating influence on the impact of working and GPA (Derous & Ryan, 2008). Analysis in another study, however, indicated that employed students may have had higher grades than non-employed students if they had not worked (Richardson et al., 2013). Working students exhibiting good time management and effort had higher grades than working students who lacked these skills (Huie et al., 2014). In sum, the academic success of students who are motivated by their coursework and engaged in their studies as well as those with effective study habits may not be negatively impacted by working.

Another aspect of busyness that may impact GPA is course load. The assumption that heavier course loads will result in a lower GPA than a lighter course load is erroneous (Szafran, 2001) although first-semester GPA tends to predict subsequent semester GPA (Duby & Schatman, 1997; Volkwein & Lorang, 1996). A higher course load may also be an indication of greater academic commitment (Szafran, 2001). At many U.S. higher education institutions, students are being encouraged to take a full load of 15 credits in order to graduate in four years. Reports on these programs demonstrate that students with a full load are more successful, as measured by GPA and retention, than those with lower credit loads (Nietzel, 2019; Smith, 2018a, 2018b). These programs may be accompanied by financial awards to cover full-time attendance or by penalizing students for not taking a full load (Smith, 2018a). Some emphasize, however, that these "15 to Finish" initiatives must be part of an integrated and targeted focus on graduation (Nietzel, 2019). Results of these programs are generally in the form of institutional reports rather than being published in academic journals.

Finally, marital status and volunteerism or other forms of personal interests may be factors in busyness. Surprisingly, however, marital status and its impact on academic achievement has not been studied to any extent (Halpern, 2007) although single mothers incur more debt and take longer to complete than other college students (Cruse, Gault, & Suh, 2018). Other than these studies, research has not been conducted in this area that we could identify. Busyness in terms of volunteerism has been associated with higher GPAs (Vilunth, Cesari, Norwood, Satterfield, Shreve, Ryan, & Lewis, 2014), but additional research on this topic or other leisure time activities and possible impact on GPA is not available.

The Impact of Motivation on Grades

In addition to busyness being a potential factor in student success, as determined by GPA, motivation most certainly plays a role. Motivation in this study focused on exploring students' interest in general education, specifically learning about GE topics, having an interest in GE topics, feeling that what one learns in GE is important, and enjoying GE classes. Numerous studies have connected motivation to GPA, though not specifically motivation for taking GE

courses. As such, this study focuses on providing new insights into if and how requirements such as GE might impact grades, and by extension, retention and graduation although the latter were not part of this study.

The specifics of motivation studies vary, but the preponderance of evidence indicates that motivation positively impacts GPA (Richardson, Abraham, & Bond, 2012). The research on motivation and student success is extensive; as such, it represents a multiplicity of constructs, variables, measures, outcomes, and student populations; here we provide a brief overview of studies specifically related to aspects of motivation that impact GPA although how motivation is operationalized and measured varies extensively in these studies. No studies have focused on the relationship between motivation for taking GE courses and GPA.

One group of studies has focused on motivation in terms of the efficacy of goal-setting. Some evidence indicates that when academic goals are associated with the belief that college results in intellectual development, strong academic performance follows (Clark, Middleton, Ngyuyen, & Zwick, 2014). Learning-goal orientation also plays a role in success but impacts students in different ways; while learning-goal oriented students had higher GPAs than performance-oriented students overall, distance education students with this orientation outperformed nontraditional and traditional students in terms of GPA (Bennett, Evans, & Riedle, 2007), demonstrating the efficacy of this attribute for success in distance learning courses in particular.

Similarly, performance-approach goals (e.g., the desire to outperform others) has been shown to positively predict cumulative GPA compared to performance-avoidance goals (e.g., the desire to not perform more poorly than others) (Durik, Lovejoy, & Johnson, 2009). Additionally, student-set, specific academic goals are predictive of semester GPA in some cases (Acee, Cho, Kim, & Weinstein, 2012). Motivation for achievement, or mastery-approach goals, correlated positively with college GPA in another study, but the need for cognition, or engaging in and enjoying effortful thinking, did not (Neigel, Behairy, & Szalma, 2017). These studies demonstrate that engagement in learning, as evidenced by goal-setting under various conditions can motivate and positively impact performance.

Another variable in motivation studies, and one relevant to this study in terms of GE experiences being a variable, is course selection. The impact of course selection for students with a work mastery orientation (tendency to work hard to master skills) had less variability on achievement than students with an achievement motivation (striving to find ways to do things well) (Durik et al., 2009). Work mastery goal-oriented students, however, showed less diversity in course selection than their counterparts, demonstrating a narrower interest in academic disciplines than achievement-oriented students. These students possibly arrive at a university knowing what they want to study, and as such, take courses in fewer areas. Students with achievement goals demonstrated greater variability in course selection and broader interests. While our study did not focus on course selection, it did focus on determining how variables such as enjoyment and interest in GE courses as well as seeing the value of GE impact motivation. One might posit that students motivated to take GE might have an achievement orientation, based on the findings of the Duirk et al. (2009) study.

Academic self-efficacy, intrinsic motivation, self-regulated learning, and satisfaction with one's degree program predicts adjustment to college, but of these variables, motivation had the least impact (van Rooij et al., 2017). This finding indicates that motivation alone does not guarantee success but must be accompanied by specific behaviors. Motivation, self-efficacy, and the need for cognition (a personality trait for engaging in and enjoying cognitive activities) predicted GPAs for non-traditional students although motivation variables were the strongest (Warden & Myers, 2017). Dispositional and academic optimism correlated with motivation and adjustment to college; academic optimism was associated with high GPAs (Nes, Evans, & Segerstrom, 2009). Similarly, conscientiousness and self-motivation has also been found to positively GPAs (Cheng & Ickes, 2009; Di Domenico & Fournier, 2014). This set of studies demonstrates that motivation works in conjunction with personality factors and behaviors and has different effects depending on the variables used as well as study participants.

In sum, while studies generally demonstrate that motivation plays a role in student success, inconsistencies in the definitions of motivation, constructs measured, and combinations of variables used make it somewhat challenging to draw specific conclusions. An in-depth treatment of this subject is beyond the scope of this study, particularly as motivation for general education coursework has not been studied.

The Impact of Mentoring on Grades

In addition to busyness and motivation, mentoring may be particularly important for firstgeneration college students who lack knowledge about higher education, may be academically unprepared, and may be from low socioeconomic backgrounds (Pascarella, 2004). Their transition is more challenging than that of other students and they are more likely to leave after the first year (Pascarella, 2004). They also complete fewer credit hours the first year, study less and are employed more hours, and are less likely to perceive that faculty are concerned about them (Terenzini et al., 1996). They lack cultural capital, or the knowledge, skills, and behaviors of the dominant social class, as well as social capital, having fewer networks through which to access information to make good decisions (Bourdieu, 1986; Coleman, 1988; Pascarella, 2004).

Academic advising gives students the opportunity to interact with an official institutional representative, thereby supporting academic and social integration (King, 1993), which is linked to retention (Tinto, 1993, 1999). The impact of advising on academic outcomes has been mixed, however (Kot, 2014). High quality advising, as rated by students, has been linked to lower attrition and low quality advising to higher attrition (Metzner, 1989; Pascarella & Terenzini, 2005); in other studies, advising impacted third semester persistence but not first and second semester GPA (Seidman, 1991). Centralized advising, where advisors are co-located in a centralized unit resulted in increased first- and second-semester GPAs, first-year cumulative GPAs, and decreased attrition in the first year (Kot, 2014). Others have found no relationship between the number of advising sessions and GPA (Hester, 2008).

Peer mentoring can also provide a network of support (Alcocer & Martinez, 2018). Peer mentors aid in the transition to college by providing information on courses and services, and giving informal advice, leading to increased retention (Collings, Swanson, & Watkins, 2014). They serve as advisors, friends, confidantes, study partners, and role models (Egege & Kutieleh,

2015). These relationships can be particularly helpful for minority students, and result in increased sense of belonging (Phinney, Torres Campos, Padilla Kallemeyn, & Kim, 2011) and higher completion rates (Johnson, Simon, & Mun, 2014). Cultural background must be considered when determining the components of effective mentoring for specific populations (Alcocer & Martinez, 2018). Peer mentoring has been linked to GPA, particularly when combined with tutoring in academic subjects, such as biology or STEM disciplines (Mayer, Christofferse, & Fiorella, 2017).

Mentoring can occur on both formal and informal levels. Informal and naturallyoccurring mentoring in adolescence for first-generation college students, for example, helps offset their lack of social and cultural capital that other young people possess, and helps predict academic success (Fruiht & Chan, 2018). Formal mentoring of first-generation students by a supportive adults leads to higher GPAs compared to non-mentored students (Campbell & Campbell, 1997; Crisp & Cruz, 2009; Salinitri, 2005). Overall, a variety of types of mentoring result in positive outcomes such as retention and academic achievement, and particularly for various target populations.

This literature review has identified a number of gaps, some of them surprising. With the enormous emphasis on student success and the need to identify factors that impact it, some aspects of relevant research appear to be lacking. While research on working while attending school is fairly robust, busyness in the form of volunteerism or other leisure activities, research articles on course load as opposed to institutional reports, and the impact of marriage on academic performance are only weakly represented or the studies are dated. Additionally, the role of GE courses as a motivational factor in GPA has not been represented.

MODEL

The proposed model consists of three constructs that impact the grade point average of students. These constructs are busyness, motivation, and mentoring and are illustrated in Figure 1.





The use of GPA as a measure of success was chosen because the data is easily available for each student, and, as mentioned above, is often used as a measure of student success. The GPA for each student was pulled from university records.

Busyness was chosen as one of the main constructs because of the frequency with which students, parents, faculty, and advisors discuss the issue. The perception is that this is a major factor in student success, and so should be tested. This leads to the first hypothesis.

Hypothesis 1: Busyness will have a negative impact on GPA

Motivation is well established as a contributor to student success and, therefore, was included in the model and is represented in the second hypothesis.

Hypothesis 2: Motivation will have a positive impact on GPA

Mentoring was chosen as a construct to capture both the perceived needs of firstgeneration, non-traditional, minority, and less-prepared students, and the related needs of all students for assistance in navigating the university environment. This led to the third and final hypothesis.

Hypothesis 3: Mentoring will have a positive impact on GPA

METHODS

Approximately 12,000 students at a large university in the Western United States, were asked to participate in a major survey in the fall of 2017. The institution is open enrollment with 38% of the student body being first-generation, 27% over the age of 24, 38% married, 56% working part-time, and 52% receiving financial aid, and is also characterized by increasing ethnic diversity.

Each fall and spring semester the university's institutional research office conducts a major survey among its students. All currently registered university student email addresses (minus any high school concurrent enrolment students) are placed in a list which is then randomized in a Microsoft EXCEL worksheet. Next, about half of these student headcount records (12,000 out of around 26,000 each semester) are pulled off as a group from the top or bottom of this randomized list. These students are sent an invitation to participate via their student email account using Qualtrics software. Invited students receive an initial invitation email, which includes survey instructions, notice of confidentiality, survey-time-commitment estimate, and statement of voluntary participation. Additionally, up to three reminder emails are sent until the student completes the survey or the survey administration window closes. The survey is open for about two weeks. Following that, all survey sessions are closed, with some being recorded as a partial-complete. An average of about 1,200 students completed the survey. This resulted in a 10% response rate. The 1,200 student participants who responded are considered representative of the entire student population within a margin of + or -3 percentage points for the survey as a whole.

The survey has two consistent sections of about 15 questions each that ask students about their experiences at the institution (satisfaction, ability to register for classes, etc.) and their demographic characteristics (marital status, religious affiliation, parental status, etc.). Two "student experience" blocks begin the survey, and the demographics section ends the survey. Additional, small blocks of student opinion questions (roughly 5 questions per block) fill in the bulk of the survey and vary every semester. These blocks are usually presented at the mid-point of the survey, and are solicited from a broad array of campus departments.

The specific block of questions used in the current study was randomly assigned by the computer software. The survey was programed to randomly, but evenly, present 4 of 9 available survey blocks to participants following the initial two blocks of common "student experience" question sets. The block of questions examined here was presented to participants roughly half-way through the survey. As a result, 435 randomly selected students completed this block resulting in responses being representative of the total population within a margin of + or - 4.6 percentage points. The responses were then linked to the university's database for additional information, including GPA. Once linked, the data were de-identified by the university's institutional research office and made available to the researchers. Constructs

Due to the diversity of students in higher education and the increasing number who work while going to school and have family responsibilities, busyness was determined to be an area with potential impact on GPA. Additionally, since little is known about how required university components such as general education impact motivation, and this was specifically identified as a gap in the literature, the motivation questions in the survey focused on general education courses. The intent was to gauge the broader motivation for studying at a university, rather than enthusiasm for a student's major. The third component, mentoring, was selected due to its importance in helping students connect with others and obtain needed information for success. As such, the following questions were asked in the survey. These are organized around the three constructs:

For busyness:

- BU1: Please indicate the number of hours per week you work at your primary employment.
- BU2: What is your current marital status? This was coded as 0=Married and 1=Single as no other complete answers were given.
- BU3: Do you have children in the home whom you support? This was coded as 0=No and 1=Yes.
 - BU4: How many children and what ages?
- BU5: Do you spend time each week participating in volunteer work? This was coded as 0=No and 1=Yes.

• BU6: How many hours per week do you spend participating in volunteer work? For motivation:

On a scale of 1-5 please mark how much you agree or disagree with the statements below:

- MO1: How would rate your overall experience at the university?
- MO2: How would you rate your sense of student pride in the university?
- MO3: I am motivated to learn about the topics in my general education classes.
- MO4: The topics taught in my general education classes are interesting to me.
- MO5: What I learn in my general education classes is important for my educational goals.
- MO6: I enjoy my general education classes.

For mentoring:

On a scale of 1-5 please mark how much you agree or disagree with the statements below:

- ME1: When I have complicated questions about scheduling classes at the university, I have someone whom I can ask.
- ME2: I have confidence that my academic advisor has my best interest in mind when scheduling my classes.
- ME3: When I have questions about classes, I have someone whom I can ask without feeling embarrassed.
- ME4: How many of your family members have college degrees?
- ME5: How many of your friends attend or have attended college?

Additional data was obtained from the university's institutional research office in order to determine the extent to which these three constructs had an effect on GPA. Analyses were performed using R (R Core Team, 2019) and Jamovi (The Jamovi Project, 2019), as well as the GPower program (Erdfelder, Buchner, & Land, 2009).

RESULTS

Given that the questions were taken from an already existing set used by the Institutional Research division at our university, we first desired to assess whether the groupings we hypothesized (busyness, motivation, and mentoring) had statistical validity. Analyses were performed utilizing both R (R Core Team, 2019) and Jamovi (The Jamovi Project, 2019). The results from a confirmatory factor analysis (see tables 1, 2, and 3) on the z-scored variables show that the survey questions seem to fit the specified model, with a Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) each above 0.95 and both SRMR and RMSEA below 0.08 as per Kline (2011) and Hooper, Coughlan, and Mullen (2008). Additionally, regression analyses utilizing the subscales (see tables 5-8 for term GPA; and tables 9-12 for cumulative GPA) show that only the motivation subscale is predictive for both term and cumulative GPA. In Table 1, the results indicate that the loadings for each of the indicator variables were statistically significant, with the exception of ME4, the number of college degrees for family members, in the Mentoring Factor. Overall, it appears that the indicators are appropriately included in their respective Factors. While in Table 2, the model chi-square was significant (see Schermelleh-Engel, Moosbrugger, & Müller, 2003), Table 3 shows that the fit measures are each within recommended levels as noted by Hooper, Coughlin, and Mullen (2008). Table 4 shows the correlation matrix with each correlation being statistically significant save that of Mentoring and Busyness, which is also the only negative correlation. Table 5 shows overall fit results for the regression on Term GPA, showing substantial statistical significance, though a small effect in terms of the R-squared (see Cohen, 1988). While not shown, a power analysis was run utilizing the GPower program (Erdfelder, Buchner, & Land, 2009) with the power for the Term GPA regression falling at 0.99. The results of Table 6 indicate that only the Motivation variable was statistically significant in the Omnibus ANOVA while Table 7 shows the regression coefficients for the model as well. Table 8 shows that, based on the variance inflation factor (VIF), multicolinearity does not seem to be at issue with these variables, (see Hair, Anderson, Tatham, & Black, 1995). Table 8, which begins the analyses specific to the cumulative GPA, again shows a high level of statistical significance, with a small effect size based on Cohen (1988). Table 9

and 10 show that, again, only the Motivation variable was statistically significant in the models. While not shown, a power analysis was run utilizing the GPower program (Erdfelder, Buchner, & Land, 2009) with the power for the cumulative GPA regression falling at 0.98. Table 11 indicates that multicolinearity does not appear to be an issue with the variables in the model as Hair and his coauthors (1995) specify.

Factor Loadings								
				95% Confid	ence Interval			
Factor	Indicator	Estimate	SE	Lower	Upper	Z	р	Stand. Estimate
Busy	BU1	0.1006	0.0477	0.00704	0.194	2.11	0.035	0.0645
	BU2	0.2625	0.0143	0.23453	0.291	18.38	<.001	0.5520
	BU3	0.7246	0.0209	0.68366	0.766	34.68	<.001	0.9875
	BU4	0.8729	0.0321	0.80993	0.936	27.15	<.001	0.7704
	BU5	0.0978	0.0151	0.06830	0.127	6.50	<.001	0.2000
	BU6	0.1346	0.0289	0.07804	0.191	4.66	<.001	0.1434
Motivation	MO1	0.2461	0.0326	0.18219	0.310	7.55	<.001	0.3202
	MO2	0.3579	0.0422	0.27520	0.441	8.48	<.001	0.3618
	MO3	1.1572	0.0477	1.06371	1.251	24.26	<.001	0.9017
	MO4	1.1429	0.0461	1.05254	1.233	24.80	<.001	0.9131
	MO5	1.1590	0.0511	1.05876	1.259	22.67	<.001	0.8661
	MO6	1.1126	0.0461	1.02233	1.203	24.16	<.001	0.8996
Mentoring	ME1	1.0226	0.0527	0.91933	1.126	19.42	<.001	0.8267
	ME2	1.0553	0.0560	0.94548	1.165	18.83	<.001	0.8089
	ME3	0.9549	0.0513	0.85426	1.055	18.60	<.001	0.7983
	ME4	0.0594	0.0565	-0.05128	0.170	1.05	0.293	0.0547
	ME5	0.1304	0.0423	0.04746	0.213	3.08	0.002	0.1590

Table 1: Confirmatory Factor Analysis

Table 2: Model Fit

Test for Exact Fit

χ^2	df	р					
324	113	<.001					
				RMSEA	90% CI	_	
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CFI	TLI	SRMR	RMSEA	Lower	Upper	AIC	BIC
0.960	0.952	0.0682	0.0388	0.0339	0.0438	28637	28929

Table 4: Correlation Matrix

		Busyness	Motivation	Mentoring	GPA Term	GPA Cumulative
Busyness	Pearson's r					
	p-value	_				
Motivation	Pearson's r	0.057 *	_			
	p-value	0.046	—			
Mentoring	Pearson's r	-0.046	0.373 ***	—		
	p-value	0.335	<.001	—		
GPA Term	Pearson's r	0.074 **	0.134 ***	0.143 **	—	
	p-value	0.009	<.001	0.003	—	
GPA Cumulative	Pearson's r	0.060 *	0.136 ***	0.144 **	0.768 ***	
	p-value	0.035	<.001	0.003	<.001	—

Note. * p < .05, ** p < .01, *** p < .001

Table 5: Linear Regression for Term GPA

Term GPA Fit Measures

							Overa	ll Mode	el Test	
Model	R	R ²	Adjusted R ²	AIC	BIC	RMSE	F	df1	df2	р
1	0.230	0.0530	0.0464	1048	1069	0.796	8.06	3	432	<.001

Table 6: Model Specific Results for Term GPA

Term GPA

Omnibus ANOVA Test

	Sum of Squares	df	Mean Square	F	р
Busy	0.0815	1	0.0815	0.128	0.721
Motivation	9.4542	1	9.4542	14.789	<.001
Mentoring	1.2187	1	1.2187	1.906	0.168
Residuals	276.1569	432	0.6393		

Note. Type 3 sum of squares

Table 7: Term GPA Model Coefficients

			95% Cor Interval	ıfidence				95% Confidence Interval		
Pre- dictor	Estimate	SE	Lower	Upper t p			Stand. Estimate	Lower	r	
Intercept	3.4050	0.0383	3.3297	3.480 3		88.89 7	<.001			
Busy	-0.0216	0.0604	-0.1403	0.097 1		-0.357	0.721	-0.0168	-0.1093	0.0757
Moti- vation	0.2043	0.0531	0.0999	0.308 7		3.846	<.001	0.1948	0.0952	0.2944
Mentor- ing	0.0865	0.0626	-0.0366	0.209 6		1.381	0.168	0.0699	-0.0296	0.1694

Table 8: Collinearity Statistics

	VIF	Toleranc e
Busy	1.01	0.991
Motivation	1.17	0.854
Mentoring	1.17	0.856

Table 9: Linear Regression for Cumulative GPA

							Overa	ll Mode	el Test	
Model	R	R ²	Adjusted R ²	AIC	BIC	RMSE	F	df1	df2	р
1	0.232	0.0539	0.0473	731	751	0.553	8.20	3	432	<.001

Cum. GPA Fit Measures

Table 10: Model Specific Results for Cum. GPA

Omnibus ANOVA Test

	Sum of Squares	df	Mean Square	F	р
Busy	0.0579	1	0.0579	0.188	0.665
Motivation	4.4829	1	4.4829	14.525	<.001
Mentoring	0.6442	1	0.6442	2.087	0.149
Residuals	133.3300	432	0.3086		

Note. Type 3 sum of squares

Table 11: Model Coefficients

nfidence
Upper
0.113
0.292
0.173
Uppe 0.113 0.292 0.173

 Table 12: Collinearity Statistics

	VIF	Tolerance
Busy	1.01	0.991
Motivation	1.17	0.854
Mentoring	1.17	0.856

These results impact the hypotheses as follows:

Hypothesis 1: Busyness will have a negative impact on GPA
Not supported
Hypothesis 2: Motivation will have a positive impact on GPA
Supported

Hypothesis 3: Mentoring will have a positive impact on GPA Not supported

DISCUSSION

The lack of confirmation of hypothesis 1 is not surprising, considering the research. An intuitive understanding of busyness leads to the conclusion that higher levels of activity can take away from the performance in any single course and thus reduce overall academic performance; however, research is mixed as to the impact of busyness on student success. For some the discipline required of a busy life with part-time work may translate into greater success in the classroom (Ma, 1984; Volkwein & Strauss, 2002), but for others the mere lack of available time may erode their academic performance (Applegate & Daley, 2005; McVicar & McKee, 2001; Stinebrickner & Stinebrickner, 2003). This study makes it difficult to identify the reasons behind the weak connection between busyness and academic success, but with studies showing positive, negative, and neutral effects (Callender, 2008), it is clear that this field needs more research to understand the causality between work and academic performance.

This weak connection between work and academic performance does question the value of policies that call for students to not work during college or to delay family until completing a degree in order to boost academic performance. Indeed, many countries (especially in Europe) subscribe to supporting students through college so that they can focus on their studies and perform better (Brennan, et al. 2005). The results of this research question the need for such policies.

The confirmation of hypothesis 2, is not surprising. Much research ties motivation to successful college performance (Cheng & Ickes, 2009; Di Domenico & Fournier, 2014; Neigel, Behairy, & Szalma, 2017; Warden & Myers, 2017). The key insight of this research is that the focus of the survey was on general education courses, rather than major courses. Most of these courses are not part of a student's major and so could be viewed by students as annoying requirements that must be completed before enjoying the study of classes in one's major.

Therefore, the strong positive attitude to general education courses could be a good indication of overall enjoyment of being at a university and a key source of academic motivation.

The lack of confirmation of hypothesis 3 is also somewhat surprising. The prevailing belief is that many students perform poorly (as well as drop out of college) because of poor advising, both formal and informal (King, 1993; Pascarella, 2004). Informally this can be found in having relatives and friends that have attended college and can be a source of advice as a student begins and continues college studies (Alcocer & Martinez, 2018). Having a well-staffed, quality advising group is seen as essential for student success at open enrollment institutions (Metzner, 1989; Pascarella & Terenzini, 2005), such as the one that was the subject of this research. However, the results of this study do not seem to support the view that advising plays a strong roll in student success.

This is also the expectation for students without family members that have college degrees, or first-generation college students. Pascarella (2004) indicates that the lack of knowledge about higher education makes the transition more challenging, and Terenzini, et al (1996) showed that they are less likely to perceive that faculty are concerned about them. However, this study does not support that research.

One possible explanation is that the other research did not control for motivation. By making motivation a separate factor, a truer view of the impact of advisement and first-generation status is made clear. For example, Terenzini, et al (1996) and other studies may have captured lower motivation that confounded it with other elements of first-generation students.

LIMITATIONS AND FUTURE RESEARCH

Since this study was conducted at a large open-enrollment institution in the Western United States, it is difficult to generalize the results to other geographical areas and to other types of institutions. Similar studies should be conducted at other institutions to see if they produce similar results. We also acknowledge that this study did not differentiate among GE courses and that specific courses may be more motivating to some students than others (e.g., engineering students might enjoy GE math requirements). This was beyond the current study, which explored only if general perspectives about general education requirements had an impact on students' GPAs.

Future research might seek to unpack the elements of busyness and mentoring to see if other relationships with academic success could be found. Busyness might have a curvilinear relationship with GPA, in that a small amount might improve academic performance, but at a higher-level performance drops off. Mentoring might only have an impact on freshmen, and once established, students need little mentoring to finish their degree programs. This could be tested by dividing survey subjects by their year in school.

The nonsignificant results with mentoring do suggest that other research might try to make motivation a separate factor in studies. Indeed, motivation could be a mediating variable in many student success studies that look at individual specific treatments or situation and their effects on student success. Future research might test this hypothesis using more traditional measures of motivation.

CONCLUSION

A significant amount of research has been conducted into the factors that contribute to student success in college. Motivation is well established as having a positive relationship with student success (Richardson, Abraham, & Bond, 2012), and although the measures of motivation used in this study were novel (related to a positive view of general education courses and the university in general), the results concur with other studies that use more traditional measures of motivation. Mentoring is thought to also have a major impact on student success, but this study does not show a significant link between mentoring and student success. This construct includes elements of student advising as well as having family members which have completed a college degree. The student status of first generation, non-traditional, minority, or less prepared has often been considered a major handicap in college success, but it, along with additional college mentoring, appears to have no major impact in this study. Such results casts doubt on some of the work that suggests that first-generation, non-traditional, minority, and less-prepared college students have such a handicap and the value of intensive advisement. Instead, the emphasis should be on motivation. If these students have a handicap, this research suggest that it is due to lower motivation, not the myriad of others things (i.e., not knowing how to sign up for the right classes, how to study, how to get financial aid, etc.). Efforts to improve their motivation directly might prove more productive in improving their success.

REFERENCES

- Acee, T. W., Cho, Y. J., Kim, J. I., & Weinstein, C. E. (2012). Relationships among properties of college students' self-set academic goals and academic achievement. *Educational psychology*, 32(6), 681-698.
- Adelman, C. (1999). Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment. Washington, DC: U.S. Department of Education [online]. Retrieved from http://www.ed.gov/pubs/Toolbox/index.html
- Alcocer, L. F., & Martinez, A. (2018). Mentoring Hispanic students: A literature review. *Journal of Hispanic Higher Education*, 17(4), 393-401.
- Applegate, C., & Daley, A. (2005). The impact of paid work on the academic performance of students: A case study from the University of Canberra. *Australian Journal of Education*, 50(2), 155-166. Retrieved from https://doi.org/10.1177/000494410605000205
- Association of American Colleges & Universities. (n. d.). *General education*. Retrieved from https://www.aacu.org/resources/general-education
- Astin, A. W. (1993). What matters in college: Four critical years revisited. San Francisco, CA: Jossey-Bass.
- Bartolj, T., & Polanec, S. (2018). Does work harm academic performance of students? Evidence using propensity score matching. *Research in Higher Education*, 59(4), 401-429.
- Bennett, S., Evans, T., & Riedle, J. (2007). Comparing academic motivation and accomplishments among traditional, nontraditional, and distance education college students. *Psi Chi Journal of Undergraduate Research*, 12(4), 154-161.
- Bir, B. & Mondrail, M. (2015). Summer bridge's effects on college student success. *Journal of Developmental Education*, 39(1), 22-30.
- Bok, D. (2017, September 21). *Improving the quality of education*. Inside HigherEd. Retrieved from <u>https://www.insidehighered.com/views/2017/09/21/how-improve-quality-higher-education-essay</u>
- Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), Handbook of theory

and research for the sociology of education (pp. 241–258). New York: Greenwood Press.

- Brennan, J., Callender, C., Duaso, A., Little, B., Van Dyke, R. (2005). Survey of higher education students' attitudes to debt and term-time working and their impact on attainment. A report to Universities UK and HEFCE by CHERI and London South Bank University. Retrieved from http://www.universitiesuk.ac.uk/Publications/Documents/termtime work.pdf
- Burd, S. (2004). Graduation rates called a poor measure of colleges: Report says data don't give a true picture of success. *The Chronicle of Higher Education*. Retrieved from <u>http://chronicle.com/weekly/v50/i30/30a00101.htm</u>
- Burns, K., Ellegood, W. A., Bernard Bracy, J. M., Duncan, M., & Sweeney II, D. C., (2019), Early college credit programs positively impact student success. *Journal of Advanced Academics*, 30(1), 27-49.
- Callender, C. (2008). The impact of term-time employment on higher education students; academic attainment and achievement. *Journal of Education Policy*, 23(4), 359-377.
- Campbell, T. A., & Campbell, D. E. (1997). Faculty/student mentoring program: Academic performance and retention. *Research in Higher Education*, 38(6), 727–742.
- Cheng, W., & Ickes, W. (2009). Conscientiousness and self-motivation as mutually compensatory predictors of university-level GPA. *Personality and Individual Differences*, 47, 817-822.
- Choy, Susan. (2002). *Findings from the condition of education 2002: Nontraditional undergraduates*. National Center for Education Statistics. Retrieved from https://nces.ed.gov/pubs2002/2002012.pdf
- Clark, M. H., Middleton, S. C., Nguyen, D., & Zwick, L. K. (2014). Mediating relationships between academic motivation, academic integration and academic performance. *Learning and Individual Differences*, 33, 30-38.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Earlbaum Associates.
- Coleman, J. (1988). Social capital in the creation of human capital. *American Journal of Sociology, 94*(supplemental), S95–S120.
- College Board. (2009). *How colleges organize themselves to increase student persistence: Four-year institutions.* New York: College Board.
- Collings, R., Swanson, V., & Watkins, R. (2014). The impact of peer mentoring on levels of student wellbeing, integration and retention: A controlled comparative evaluation of residential students in UK higher education. *Higher Education*, 68(6), 927-942. doi:10.1007/s10734-014-9752-y
- Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. *Research in Higher Education, 50*(6), 525–545.
- Cruse, L. R., Gault, B., Suh, J. Y., & DeMario, M. A. (2018, May). Time demands of single mother college students and the role of child care in their postsecondary success, IWPR #C468. Retrieved from https://iwpr.org/publications/single-mothers-college-time-use/
- Derous, E., & Ryan, A. M. (2008). When earning is beneficial for learning: The relation of employment and leisure activities to academic outcomes. *Journal of Vocational Behaviour*, 73(2008), 118–31.
- DeSimone, J. S. (2008). The impact of employment during school on college student academic performance. NBER Working Paper No. 14006. Retrieved from http://www.nber.org/papers/w14006
- Di Domenico, S. I., & Fournier, M. A. (2015). Able, ready, and willing: Examining the additive and interactive effects of intelligence, conscientiousness, and autonomous motivation on undergraduate academic performance. *Learning and Individual Differences*, 40, 156-162.
- Dougherty, K. J., Natow, R. S., Bork, R. H., Jones, S. M., & Blanca, V. E. (2013). Accounting for higher education accountability: Political origins of state performance funding for higher education. *Teachers College Record*, 115(1), 1–50.
- Dougherty, K. J., & Reddy, V. (2011). The impacts of state performance funding systems on higher education institutions: Research literature review and policy recommendations. New York: Teacher College, Columbia University.

- Duby, P., & Schartman, L. (1997). Credit hour loads at college onset and subsequent college performance: A multiinstitution pilot project. Paper presented at the 37th Annual Forum of the Association for Institutional Research, Orlando, FL. Retrieved from <u>https://files.eric.ed.gov/fulltext/ED410884.pdf</u>
- Durik, A. M., Lovejoy, C. M., & Johnson, S. J. (2009). A longitudinal study of achievement goals for college in general. Predicting cumulative GPA and diversity in course selection, *Contemporary Educational Psychology*, 34, 113-119.
- Egege, S., & Kutieleh, D. S. (2015). Peer mentors as a transition strategy at university: Why mentoring needs to have boundaries. *Australian Journal of Education*, *59*(3), 265-277. doi:10.1177/0004944115604697
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160. Download PDF
- Fruiht, V. & Chan, C. (2018). Naturally occurring mentorship in a national sample of first-generation college goers: A promising portal for academic and developmental success. *American Journal of Community Psychology*, 61(2), 1-12.
- Government Accountability Office. (2012). Postsecondary education: Financial trends in public and private nonprofit institutions. Washington, DC: United States Government Accountability Office.
- Hair, J. F., Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). Multivariate data analysis (3rd ed.). New York: Macmillan
- Halpern, N. (2007). The impact of attendance and student characteristics on academic achievement: Findings from an undergraduate business management module. *Journal of Further and Higher Education*, 31(4), 335-349.
- Handstedt, P. (2016). Reconsidering our definition: An argument for an authority-based approach to university education. *Liberal Education*, 102(3), 58-63.
- Hart Research Associates. (2016, January 19). *Recent trends in general education design, learning outcomes, and teaching approaches*. Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/2015_Survey_Report2_GEtrends.pdf
- Hester, E. J. (2008). Student evaluations of advising: Moving beyond the mean. College Teaching, 56(1), 35-38.
- Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modeling: Guidelines for determining model fit. Electronic Journal of Business Research Methods, 6(1), 53–60.
- Huie, F. C., Winsler, A., & Kitsantas, A. (2014). Employment and first-year college achievement: The role of selfregulation and motivation. *Journal of Education and Work*, 27(1), 110-135. http://dx.doi.org/10.1080/13639080.2012.718746
- Hunt, A., I. Lincoln, and A. Walker. 2004. Term-time employment and academic attainment: Evidence from a large-scale survey of undergraduates at Northumbria University. *Journal of Further and Higher Education*, 28(1)- 3–18.
- Jennings, N., Lovett, S., Cuba, L., Swingle, J., & Lindkvist, H., (2013). "What would make this a successful year for you?" How students define success in college. *Liberal Education*, 99(2), 40-47.
- Johnson, V. L., Simon, P., & Mun, E. (2014). A peer-led high school transition program increases graduation rates among Latino males. *Journal of Educational Research*, 107(3), 186-196. doi:10.1080/00220671.2013.788991
- Jones-White, D. R., Radcliffe, P. M., Huesman, Jr., R. L., & Kellogg, J. P. (2010). Redefining student success: Applying different multinomial regression techniques for the study of student graduation across institutions of higher education. *Research in Higher Education*, *51*(2), 154-174. DOI 10.1007/s11162-009-9149-4
- Kalenkoski, C. M., & Pabilonia, S. W. (2008). Parental transfers, student achievement, and the labor supply of college students. *Journal of Population Economics*, 23(2), 469-496..
- Kelly, P. & Strawn, J. (2002). Not just kid stuff anymore: The economics imperative for more adults to complete college. Center for Law and Social Policy and the National Center for Higher Education Management Systems. Retrieved from <u>https://eric.ed.gov/?id=ED535367</u>
- Kline, R. B. (2011). Principles and practice of structural equation modeling (3rd ed.). New York, NY: Guilford Press

- King, M. C. (1993). Academic advising, retention, and transfer. *New Directions for Community Colleges,* 82(Summer), 21–31.
- Kot, F. C. (2014). The impact of centralized advising on first-year academic performance and second-year enrollment behavior. *Research in Higher Education*, 55(6), 527-563. DOI 10.1007/s11162-013-9325-4
- Lumina Foundation. (n. d.). *Our assumptions about today's college students are wrong*. Retrieved from https://www.luminafoundation.org/todays-student
- Ma, L. C. (1984). Employment characteristics, course satisfaction and academic performance. of college students. *Psychological Reports* 54(3), 943–946.
- Mayer, R. E., Rolf, C., & Logan, F. (2017). Enhancing undergraduate success in biology through the biomentors program. *American Biology Teacher*, 79(1), 23-27.
- McVicar, D., & McKee, B. (2001). Part-time work during post-compulsory education and examination performance. Help or hindrance? *Scottish Journal of Political Economy*, 49(4), 393-406. Retrieved from <u>https://doi.org/10.1111/1467-9485.00238</u>
- Metzner, B. S. (1989). Perceived quality of academic advising: The effect on freshman attrition. *American Educational Research Journal*, 26(3), 422–442.
- Morshed, J. (2016, June 29). The US and UK: Comparing higher education in the two top ranking nations. Retrieved from <u>https://www.unit4.com/blog/2016/06/the-us-and-uk-comparing-higher-education-in-the-two-top-ranking-nations</u>
- Neigel, A. R., Behairy, S., & Szalma, J. L. (2017). Need for cognition and motivation differentially contribute to student performance. *Journal of Cognitive Education and Psychology*, 16(2), 144-156.
- Nes, L. S., Evans, D. R., & Segerstrom, S. C. (2009). Optimism and college retention: Mediation by motivation, performance, and adjustment. *Journal of Applied Social Psychology*, 39(8), 1887-1912.
- Nietzel, M. T. (2019, March 4). The 15-to-finish campaign: Putting the 'four-year' back in four-year degrees. Forbes. Retrieved from <u>https://www.forbes.com/sites/michaeltnietzel/2019/03/04/the-15-to-finish-campaign-putting-the-four-year-back-in-four-year-degrees/#34b34ab64d6b</u>
- Pascarella, E. T., Pierson, C. T., Wolniak, G. C., & Terenzini, P. T. (2004). First-generation college students: Additional evidence on college experiences and outcomes. *The Journal of Higher Education*, 75(3), 249-284.
- Pascarella, E. T., & Terenzini, P. T. (2005). *How college affect students: A third decade of research*. San Francisco: Jossey-Bass.
- Phinney, J. S., Torres Campos, C. M., Padilla Kallemeyn, D. M., & Kim, C. (2011). Processes and outcomes of a mentoring program for Latino college freshmen. *Journal of Social Issues*, 67(3), 599-621. Retrieved from <u>https://doi.org/10.1111/j.1540-4560.2011.01716.x</u>
- Porter, S. (2003). Understanding Retention Outcomes: Using multiple data sources to distinguish between dropouts, stopouts, and transfer-outs. *Journal of College Student Retention*, 5(1), 53–70.
- R Core Team (2019). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL https://www.R-project.org/.
- Richardson, J. J., Kemp, S., Malinen, S., & Haultain, S. A. (2013). The academic achievement of students in a New Zealand university: Does it pay to work? *Journal of Further and Higher Education*, 37(6), 864-882, DOI: 10.1080/0309877X.2012.699517
- Richardson, M., Abraham, C., & Bond, R. (2012). Psychological correlates of university students' academic performance: a systematic review and meta-analysis. Psychological Bulletin, 138(2), 353–387.
- Salinitri, G. (2005). The effects of formal mentoring on the retention rates for first-year, low achieving students. *Canadian Journal of Education*, 28(4), 853–873.
- Schermelleh-Engel, K., Moosbrugger, H., and Müller, H. (2003), "Evaluating the Fit of Structural Equation Models: Tests of Significance and Descriptive Goodnessof-Fit Measures", Methods of Psychological Research Online, 8 (2), 23-74.
- Schreiner, L. A. (2018). Thriving in the second year of college: Pathways to success. New *Directions for Higher Education, 183*(Fall), 9-21. DOI: 10.1002/he

- Seidman, A. (1991). The evaluation of a pre/post admissions/counseling process at a suburban community college: Impact on student satisfaction with the faculty and the institution, retention, and academic performance. College and University, 66(4), 223–232.
- Smith, A. A. (2018a, August 1). *Debates differ on completion incentives*. Inside HigherEd. Retrieved from https://www.insidehighered.com/news/2018/08/01/more-states-experiment-incentivizing-completion
- Smith, A. A. (2018b, December 7). Students taking more credit courses and introductory math faring well. Inside Higher Ed. Retrieved from <u>https://www.insidehighered.com/news/2018/12/07/nevada-officials-see-link-between-introductory-math-and-15-credit-course-loads</u>
- Soares, L. (2013). Post-traditional learners and the transformation of postsecondary education: A manifesto for college leaders. American Council on Education. Retrieved from <u>http://www.acenet.edu/news-room/Documents/Post-traditional-Learners.pdf</u>
- Soria, K. M., Fransen, J., & Nackerud, S. (2014). Stacks, serials, search engines, and students' success: First-year undergraduate students' library use, academic achievement, and retention. *Journal of Academic Librarianship*, 40(1), 84-91.
- Stinebrickner, R., & Stinebrickner, T. R. (2003). Working during school and academic performance. Journal of Labor Economics, 21(2), 473–492.Tinto, V. (1987). Leaving college. Chicago: University of Chicago Press.
- Terenzini, P., Springer, L., Yaeger, P., Pascarella, E., & Nora, A. (1996). First-generation college students: Characteristics, experiences, and cognitive development. *Research in Higher Education*, 37(1), 1–22.
- The jamovi project (2019). *jamovi* (Version 0.9) [Computer Software]. Retrieved from https://www.jamovi.org
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago: The University of Chicago Press.
- Tinto, V. (1999). Taking retention seriously: Rethinking the first year of college. NACADA Journal, 19(12), 5-9.
- van Rooij, E. C. M. Jansen, E. P. W. A., van de Grift, W. J. C. M. (2018). First-year university students' academic success: The importance of academic adjustment. *European Journal of Psychology of Education*, 33(4), 749-767.
- Vilunth, S. S., Cesari, W. A., Norwood, K. V., Satterfield, S., Shreve, R. G., Ryan, J. P. & Lewis, J. B. (2014). Academic achievement and primary care specialty selection of volunteers at a student-run free clinic. *Teaching & Learning in Medicine*, 26(2), 129-134.
- Volkwein, J. F., & Lorgan, W. G. (1996). Characteristics of extenders: Full-time students who take light credit loads and graduate in more than four years. *Research in Higher Education*, 37(1), 43-68.
- Volkwein, J. F., & Strauss, L. C. (2002). Comparing student performance and growth in 2- and 4- year institutions. *Research in Higher Education*, 43(2), 133–161.
- Warden, D. N., & Myers, C. A., (2017). Nonintellective variables and nontraditional college students. College Student Journal, 51(3), 380-390.
- White, G. B. (2014). *The quiet struggle of college students with kids*. Retrieved from <u>https://www.theatlantic.com/business/archive/2014/12/the-quiet-struggle-of-college-students-with-kids/383636/</u>
- Won, D., Menezes, G. B., Sharif, A. A., Ragusa, G., & Pacheco-Vega, A. (2017). Boosting engineering identity of rising sophomore engineering majors through service learning based bridge program. Proceedings of the ASEE Annual Conference & Exposition, pp. 6426-6437.

ASSURANCE OF LEARNING: ADAPTATONS OF STANDARDIZED WRITTEN AND ORAL COMMUNICATION RUBRICS

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ABSTRACT

Schools of business accredited by the Association to Advance Collegiate Schools of Business are familiar with standards for Assurance of Learning, which require systematic processes for documenting student learning, determining the extent to which learning goals are being achieved, and ensure that needed curricular and pedagogical changes are implemented to improve outcomes. Written and oral communication are the most frequently and most consistently measured skills in AACSB business schools. This practice-based study reviews the literature on the impact of rubrics on faculty and students and explores faculty adaptations of standardized writing rubrics used by an AACSB-accredited school of business. It demonstrates from multiple faculty perspectives and courses the positive impact of rubrics on teaching and learning.

INTRODUCTION

Employers agree that higher education graduates need discipline-specific knowledge and cross-cutting skills such as written and oral communication, teamwork, critical thinking, ethical decision-making, and the ability to apply knowledge to real-life contexts (Association of American Colleges & Schools, [AAC&U] 2011, 2015; Hart Research Associates, 2015). These skills are reflective of a liberal education, or "an approach to learning that empowers individuals and prepares them to deal with complexity, diversity, and change" (Association of American Colleges & Schools, [AAC&U], n. d.).

College graduates agree these cross-cutting skills are important and researchers have observed that graduates rate the quality of these skills much higher than employers (Hart Research Associates, 2015; Schneider, 2015). For example, 65% of recent college graduates surveyed indicated being well prepared in written communication while only 27% of employers felt graduates possessed adequate writing skills (Hart Research Associates, 2015). Consequently, institutions of higher education must not only design learning experiences that help students develop cross-cutting skills, but also help students accurately assess their own abilities.

Schools of business accredited by the Association to Advance Collegiate Schools of Business (AACSB) are familiar with standards for Assurance of Learning (AoL). AoL requires the use of "well documented, systematic processes for determining and revising degree program learning goals; designing, delivering, and improving degree program curricula to achieve learning goals; and demonstrating that degree program learning goals have been met" (AACSB, p. 32). Written and oral communication are the most frequently and most consistently measured skills in AACSB business schools (Martell, 2007; Kelley, Tong, & Choi, 2010; Wheeling, Miller, & Slocombe, 2015), while rubric-scored written assignments are the most common assessment method reported by AACSB deans and are in place at 89% of schools (Wheeling et al., 2015). However, faculty members in schools of business may have difficulty adapting standardized rubrics used for these assessment purposes to their specific course assignments.

To address this challenge, this practice-based study explores faculty adaptations of a standardized writing rubric used by an AACSB-accredited school of business. The authors define rubrics broadly as a document that communicates expectations for an assignment and provides consistent criteria for grading. Rubrics help students self-evaluate their work and provide formative assessment; they are using for teaching purposes rather than only evaluation purposes.

In this paper, the authors first discuss the impact of rubrics on key stakeholders. Then they share how a standardized rubric was adapted and implemented by faculty in three different courses, and their perspectives regarding rubric implementation and learning. They conclude with thoughts on the efficacy of rubrics for the enhancement of teaching and learning. The purpose of this paper is not to report on learning gains for purposes of AoL but to demonstrate how a school-wide writing rubric can be adapted to reflect course- and assignment-specific needs for faculty and provide formative feedback to students.

LITERATURE REVIEW

AACSB standards indicate that business schools must strive to meet the expectations of stakeholders, such as employers and students, and establish faculty-led processes for the development and measurement of learning outcomes. The faculty determines learning goals, curricular content, delivery methods, and learning measures. It also acts on assessment findings to improve curricula and pedagogy (AACSB, 2013; AACSB International Accreditation Coordinating Committee and AACSB International Accreditation Quality Committee, 2007; Attaway, Chandra, Dos Santos, Thatcher, & Wright, 2011). In this section, the authors consider research relevant to the impact of rubrics on faculty members and students.

Faculty

Engaging faculty members in the assessment of learning, particularly for accreditation purposes, can be a challenge. They may not perceive the need to change current practices or may view AoL as an additional demand on their time (Bennett, Smart, & Kuma, 2017). In particular, designing rubrics may entail considerable effort (Amantea, 2004); however, when faculty invest this effort upfront, they save time on grading and find less need to make extensive comments on student work (Donathan & Tymann, 2010; National Institute for Learning Outcomes, 2009; Mora & Ochoa, 2010; Petropoulou, Vassilikopoulou, & Retails, 2011). Another strategy for addressing time concerns is adopting dual purpose rubrics—used for both grading and program assessment (Garfolo, Kelpsh, Phelps, & Kelpsh, 2016).

Rubrics provide the opportunity for faculty members to openly discuss learning and measure it in an objective, reliable, and valid way across assignments, course sections, and departments (Garfolo et al., 2016; Smith, 2008; Petropoulou et al., 2011). Collaboration on rubric development may involve providing structures for faculty to work across departments to create shared understanding of outcomes and establish consistency of practice (Bennett, Smart, & Kumar, 2017), or forming teams of faculty members, markers, and teaching and learning staff to create and validate rubrics (Calma, 2013).

Collaborative rubric development results in greater insight into how concepts and skills can be introduced and reinforced across the curriculum (Bennett et al., 2017). It can unify faculty and encourage the alignment of learning goals and measures with the school's mission (Rau, 2009). Collaborative practices support AACSB standards that "curricula management facilitates faculty-faculty and faculty-staff interactions and engagement to support development and management of both curricula and the learning process" (AACSB, 2013, p. 33).

Collaboration among faculty and academic staff in the creation of rubrics can be enhanced by incorporating the perspective of employers, which is critical in preparing business graduates for their professions. These perspectives can be used to create rubrics to judge student work, and thereby help instructors prepare students for collegiate marketing competitions, clientbased projects, and ultimately for their professions (Spiller & Marold, 2015). This approach is also clearly aligned with AACSB standards indicating that "learning goals and curricula [should] reflect expectations of stakeholders" (AACSB, 2013, p. 33).

Rubrics help faculty measure and identify deficits in student knowledge and skills, including cross-cutting skills. For example, an analysis of student writing samples rated as *poor* or *fair* on a rubric with four broad categories (organization and coherence of ideas; clarity of sentences and paragraphs; spelling, grammar, and use of English; and use of references) helped one school of business identify specific issues in students' written communication, such as tense confusion, unnecessarily complex language that obscured meaning, use of technical jargon, incorrect use of apostrophes, lack of sentence clarity, the need for greater coherence, and failure to review work prior to submission (Calma, 2013).

Such findings can be used by faculty and departments to change their approaches and assist students in mastering needed skills. Findings help individual instructors monitor progress, determine if content has been sufficiently addressed, and know when concepts need to be revisited (Rau, 2009). They "provide both professors and departments with aggregate information about the development and evolution of competencies of a group of students" (Mora & Ochoa, 2010, p. 242). The analysis of information obtained from rubric-based assessment assists in determining "deficiencies in a particular course or program" so that faculty can take "corrective action" (Rau, 2009, p. 32). In one case, a marketing program was able to determine that writing skills, as measured by a rubric, improved by 50% by the third week of the semester (Rau, 2009). Similar to the study cited earlier (Calma, 2013), rubrics helped the program identify the specific aspects of writing with which students had the most difficulty. Without a rubric, specific strengths and weaknesses in student performance is difficult to ascertain.

An issue with the use of rubrics is the spread of scores. Findings differ on this with some reporting a range of scores with the use of criteria-referenced rubrics (Burton, 2006; Kuisma,

1999) and others identifying problems with assessors clustering scores at the high end (Miller, 2003). The latter occurs when evaluators cannot discriminate levels of performance, the language in the instrument is difficult to interpret, or insufficient scoring choices are offered (Miller, 2003). A related issue is instructors evaluating their own students' work (Mok & Toh, 2015). Blind marking is more objective and can address issues with insufficient spread of marks (Mok & Toh, 2015). Other factors that impact the effectiveness of grading with a rubric are the quality of the rubric itself, the experience of the raters, and the presence or absence of rater training, particularly when rubrics are used across assignments and courses (Mok & Toh, 2015).

These studies demonstrate the effectiveness of collaboration in the development of rubrics, in identifying weaknesses in skills, and in measuring cross-cutting skills in business disciplines. When faculty understand the purpose of AoL, the need to change current practices, and the value of rubrics, they recognize that rubrics provide an opportunity for feedback on their teaching and curriculum, enabling them to see needed areas of improvement and close the assessment loop (Bennett et al., 2017). Extensive evidence exists that rubrics assist faculty members in measuring learning so that "the school can evaluate its students' success at achieving learning goals, use the measures to plan improvement efforts, and . . . provide feedback and guidance for individual students" (AACSB, 2013, p. 33).

Students

From the student perspective, rubrics clarify expectations, provide guidelines for performance, identify issues needing to be addressed (Bolton, 2006; Mora & Ochoa, 2010; Rau, 2009; Smith, 2008), and indicate potential learning goals (Garfolo et al., 2016). Students experience greater comfort when they are familiar with expectations, know their standing in a course, and can identify what to improve on future assignments (Gibson, 2011; Mora & Ochoa, 2010). Commentary on rubrics can also reduce the frequency of students' questions about grades (Walvoord & Anderson, 1998), an advantage to both students and instructors. Conversations can be redirected from grades to faculty-student dialogue on learning (Garfolo et al., 2016). Rubrics help students know what the instructor considers important (Mora & Ochoa, 2010).

Getting student input about rubrics and grading preferences is critical to improving teaching and learning. Students in a marketing class preferred rubrics on writing assignments that had ratings as well as explanatory comments; the comments helped them understand the ratings and make improvements, and they appreciated feedback on both strengths and weaknesses (Smith, 2008). The rubric/matrix approach was preferred over two other methods—a paragraph that stated problems within the paper and areas of improvement, and a paragraph that identified three positive traits as well as areas for improvement. Students preferred the rubric as it provided clarity, assignment information, objectivity, and standardization. It also conveyed to them that instructors had thoughtfully prepared the assignment. Overall, students appreciated grading matrices that identified traits, weights for those traits, and assignment descriptions (Smith, 2008).

Rubrics are more successful when they are shared and discussed with students and their use is reinforced throughout the semester (Rau, 2009). Effective use of rubrics involves including them in syllabi or course learning management systems, ensuring that students are

familiar with rubrics specific to each assignment (students may even be asked to cut and paste the rubrics into their assignment submissions to demonstrate their awareness of them), and connecting rubrics to course objectives (Gibson, 2011). Even so, students may have varying opinions about their value, which may depend on the specific rubric being used. In one study, students rated seven different rubrics that had been implemented in their program of study; they scored an oral rubric the highest and an analytic rubric as the least useful; those who scored one rubric low, scored all the rubrics low (Rau, 2009). Rationale for the ratings was not collected.

These studies indicate the value of student input in rubric development. As with faculty and staff collaborations and employer input, students are also identified in AACSB standards as a critical stakeholder. AoL documentation suggests that "schools incorporate perspectives from stakeholders, including organizations employing graduates, alumni, students, the university community, policy makers, etc., into curricula management processes" (AACSB, 2013, p. 32). Rubrics also "facilitate and encourage frequent, productive student-student and student-faculty interaction designed to achieve learning goals" (AACSB, 2013, p. 33).

RUBRIC DEVELOPMENT, IMPLEMENTATION, AND LEARNING OUTCOMES

All students at the university where this study occurred are required to take two writing enriched courses beyond their general education writing course. The writing enriched courses for business majors are a business communication course and an introduction to organizational behavior course. Business school faculty who attended an AoL assessment workshop collaborated to create a standardized rubric to measure written communication for AoL purposes. The writing rubric is used in the writing enriched courses and encouraged for all courses that emphasize written communication.

The rubric was designed so that faculty members could adapt it to a range of assignments. It contains three major categories – content (what is said), organization, (when and where it is said) and style (how it is said); however, the specifics of each of these sections can vary by instructor (see Appendix A). The authors acknowledge that in some respects the rubric provides standardized guidelines rather than descriptors for varying levels of performance. The primary intent of this paper is demonstrate how standards for writing can be adapted yet address the need for consistency.

The authors next provide examples of how the writing rubric has been implemented in the writing enhanced introduction to organizational behavior course, a marketing with social media course, and a consumer behavior course. The authors share faculty perspectives on the use of the rubrics and their perspectives on student learning. It should be noted that in some cases, the rubrics are not specifically organized by the school of business rubric categories, yet still retain the intent of these categories.

It should also be noted that the assignments described are not collected and analyzed for AoL purposes. A specific pre/post writing assessment is measured for AoL purposes. The intent of the rubric is to ensure that all faculty are using consistent (yet flexible) standards for written communication so that students writing skills are focused on throughout the curriculum and students receive formative feedback and increase their awareness of what is involved in mastery of those skills.

Organizational Behavior

All business majors take an introduction to organizational behavior course. The course is designated as a writing enriched course, meaning that students receive instruction in writing and feedback on their writing. All sections of the course are consistent in that instructors use the same textbook. They also require a community project, which entails students working in teams to consult with a local business. Students identify a problem, collect data, examine the problem through the theories and concepts in the course, and make recommendations. The purpose of the project is to obtain real life experience applying the concepts of organizational behavior and to learn to work effectively in teams.

Rubric application and adaptation. Students create an artifact in their team ePortfolios to report on their consulting project. The ePortfolios are a compilation of various management challenges, reflections, and other assignments that students complete during the semester with the project being the culminating task. ePortfolios are an alternative form of assessment that have been recently added to the list of high impact practices (HIPs) (Kuh, 2008; Kuh et al., 2017; Watson, Kuh, Rhodes, Light, & Chen, 2016). They provide students with the opportunity to explore and apply course content, thereby deepening their learning.

Students are provided with a course-specific adapted version of the school of business writing rubric which outlines expectations for the project artifact (See Appendix B). The rubric, specifically the categories of content, organization, and style, can be adapted to reflect the goals and parameters of any assignment. While the categories remain constant, the specifics within each category are instructor identified. Additionally, point values can vary by instructors for each of the categories.

Students are required to meet with writing tutors to review two drafts of the consulting project artifact with revisions in between. They use the course-adapted rubric as a guide to draft their papers and prepare for the tutor appointments. Ideally, all team members are present for the tutoring appointments so that all have the opportunity to learn effective writing skills. This can be facilitated by arranging for tutors to attend class for face-to-face delivery or virtual appointments for online courses. The tutors assign points to each team based on their level of preparation as reflected in a checklist based on the rubric. This reinforces the importance of the rubric in guiding students and helping them understand expectations. When the assignment is submitted, the instructor provides commentary in the rubric matrix within the learning management system and allows additional revisions before assigning a final grade.

It should be noted that the ePortfolio artifact for the team project provides students with the opportunity to be creative, incorporate graphics and digital media, and present their work in an appealing, professional way. It helps them develop their writing skills as the content for the artifact is the same as for a traditional written report. This format has numerous applications for the business world as it entails writing, presentation, design, and technology skills.

Outcomes. The checklist and accompanying rubric have resulted in high quality projects. Use of the rubric is encouraged by means of the tutor appointments. Teams are motivated to receive points toward their grade for these appointments, thus they focus on the rubric descriptors. The rubric helps them know what is expected (Bolton, 2006; Mora & Ochoa, 2010; Rau, 2009; Smith, 2008). If they do not focus on the rubric, this is brought to their attention in the first tutor appointment. They then revise the paper as needed adhering more closely to the rubric for the second appointment.

Examining project grades is not the best measure of rubric benefits as students complete at least two drafts prior to submission and the instructor provides feedback if students submit the artifact prior to the deadline. In these cases, use of the rubric is further reinforced as the instructor provides comments within the rubric matrix. Grades are generally high as a result of multiple revisions and the guidance provided by means of the rubric. This motivates students to improve their writing skills. They know how they will be graded and receive feedback directly related to set standards.

Giving rubric-based feedback across multiple project drafts has distinct advantages. It motivates students to improve as they discuss the feedback in their teams. They benefit from the skill sets of team members, learn from each other as they modify their work, and further develop their skills and knowledge. They learn to value diversity, collaborate, and manage differing points of view. Teams may even set goals such as improving their communication processes to ensure individual responsibilities are fulfilled and work is submitted on time or having an error-free paper on the next draft. The rubric results in focused efforts as students understand expectations, are enabled to produce higher quality work, and as a result, earn higher scores.

Rubrics also create an opportunity for open discussions about performance. This occurs between the tutors and students and the faculty member and students; thus, students obtain feedback from multiple sources, and may need to manage differing viewpoints. This is often the case as different tutors are assigned to teams for the two tutor sessions, and the instructor may add a third perspective. Tutors typically offer writing-focused commentary while the instructor may remark on the writing and also direct students to theories and concepts to strengthen their recommendations. As such, students not only develop writing skills, but also critical thinking as they consider the different perspectives on their work to determine what to change and how; they also cultivate the ability to integrate course concepts and apply them to real-life contexts.

Overall, the rubric-based writing, feedback, and revision process prepares students with key cross-cutting skills valued by employers, such as communication, teamwork, critical thinking, application of knowledge, and experiences with diversity, thereby providing them with a strong foundation for lifelong learning (AAC&U 2011, 2015; Hart Research Associates, 2015). The practices described also offer insights into the degree to which course learning outcomes are met. For example, in the organizational behavior course, the instructor obtains a clear perspective on students' ability to explain and apply the theories on which their consulting project recommendations are made.

Although the consulting project artifact is not used specifically for purposes of AoL in the school of business, the standardized rubric categories reinforce the importance of written communication and help students understand its elements. As such, all written communication assignments in business courses help reinforce standards and prepare students for the writing assessment, administered in the capstone course, that is officially used for AoL purposes.

Marketing with Social Media

Students who major in digital marketing are required to take a marketing with social media course as a core requirement. Faculty teaching in other majors also promote the course as an elective. The course learning objectives require students to create written content for a marketing blog and social media platforms including Facebook, Instagram, and LinkedIn. While not officially designated as a writing enriched course, students write seven blog posts, ten social media posts, and an end-of-semester social media plan for a local client.

All sections in the course use a consistent course design, textbook, and social media ad buying simulation. Additionally, students create a student blog that uses the business written communication rubric. The purpose of these assignments is to give students a real-life experience writing social media content and learning how consumers engage with content on social media platforms. Students are taught how to write blog posts and how to write for social media audiences. While writing for social media has similarities with traditional academic writing, it uses a casual voice with simple and short communication that is personal to the reader. The writing style at times breaks traditional rules with the hope of motivating the reader to like, comment, or share (Scott, 2010).

Rubric application and adaption. The standard business school rubric was adapted and used for the student blog assignment. The faculty member used the school of business writing rubric and adapted the specific sections to teach the difference between traditional writing and writing for social media. The faculty member maintained the basic categories of the rubric (content, organization, and style) and included more detailed information in the rubric for how these may change for social media. Students were taught the basic concept that written communication needs to have strong content, organization, and style, while at the same time students were taught that these elements are different for the fast-past, shorter social media platforms. Students were also taught that in the business world all writing needs to have content organization, and style, but the written medium of delivery may change how those elements appear. The student blog rubric (Appendix C) provides clarity about required elements along with level of performance expected for each section of the business school rubric. Showing students, the required elements at the beginning of the project may reduce anxiety and the frequency of questions asked to the professor (Walvoord & Anderson, 1998). Additionally, the rubric can be used as a framework for graders to evaluate the work. Using a consistent rubric in the learning management system with points assigned to sections of the rubric may also reduce questions about grading subjectivity.

Instructors who provide a clear rubric create guidelines for how to build a project allows student to have more timely, clear communication (Chang & Kang, 2016). Each week during the semester, the professor orally reviewed the rubric while showing a written version of the rubric on the classroom screen. Students were able to both hear and see the rubric weekly. In addition, the instructor spent more detailed time on sections of the rubric that correlated to what the students were learning that week in class. The rubric was broken into small parts and the students were given sections of the rubric each week to learn and implement on their student blog.

Outcomes. Using a rubric has positively impacted the students' blogs in terms of learning adoption curve, student discussion, student awareness of different sections of the blog, and student work quality. The social media marketing class is usually taken during the senior year. At this point, students are familiar with the standard business school written communication rubric. Students no longer question the need for the written requirements; rather students are interested in how the frameworks works in a social media mediam. Ultimately, students discuss with the teacher how to take this traditional writing framework and make it work for a writing platform that limits words and characters. Using the standard framework from other classes helps

students move to more advanced ideas about writing rapidly because they have already mastered the basic framework in previous classes.

Students see the rubric, and they ask clarifying questions about the assignment. This may be difficult or it may not occur at all, if no concrete rubric is given to students. The rubric prompts clarifying questions that rapidly turns into a quality class discussion. For example, a student may ask about the style of social media hashtags. Taking the question from the rubric, the teacher engaged in a detailed description about how hashtags are used in social media not just for searching but to communicate an idea to the reader in a clever, concise way. Students then ask more questions, and they suggest hashtags to see how the class—acting as a reader—would respond to the hashtag. Another discussion that occurred from the rubric was the discussion about types of blog posts. Students asked what are the required blog posts after seeing the rubric in class, which created a class discussion about blog types and how to write a list style post versus a narrative style post.

Students are also asked to review the rubric as they complete a blog peer review toward the end of the semester. When students participate in a blog peer review, the students are exposed yet again to the rubric as they peer grade their assigned classmate's blog. When students review their classmate's blog, the student internalizes their own performance on their blog using the rubric. When students see a clear expectation from the rubric, they are motivated to compare their blog to the rubric to ensure they have all sections of the assignment completed. Rubrics increase students' ability to see the entire assignment and students miss fewer assignment requirements.

Overall, the use of the business written communication rubric enables students to produce higher quality work because students are shown how the assignment should look from the beginning of the semester. Because the rubric is discussed weekly in class, students become familiar with the requirements for the blog and their learning increases, which makes the task of creating a blog easier. Finally, students use the rubric to evaluate their peers, which motivates them to improve their own blogs after comparing how they are doing with their fellow students.

Marketing Consumer Behavior Course

The consumer behavior course, required for all marketing students, employs a common textbook across all sections. The course includes an analysis of consumer spending and saving habits, product preferences, shopping behavior, leisure time patterns, and social change, exploring the influence of advertising, selling and fashion trends on consumption behavior.

Course objectives include establishing a basic understanding of the psychological, sociological, and economic processes and influences affecting consumer choice, to examine implications of these factors for marketing, to examine implications of these factors for consumer well-being, to gain experience and familiarity with research in consumer behavior, to improve ability to express knowledge and ideas appropriately in writing and through verbal presentations, and to improve the ability to use appropriate procedures, frameworks, models, and experience to gain knowledge, solve problems, and make appropriate decisions based on various informational sources.

The term paper assignment is a qualitative research paper performed individually by each student enrolled in the consumer behavior classes. The term paper project is a small-scale qualitative field study involving some aspect of high-involvement consumer behavior. It is a study about consumers, how they are motivated, and ultimately, how important it is for marketers to better understand their attitudes and their motivations for marketplace behaviors.

Students interview two or three respondents, and all field notes and journals are submitted before the term papers are due. Formal research findings presentations of the studies will be made to the class during the last 1-2 weeks of the semester. The term paper assignment rubric appears in Appendix D.

Rubric application and adaptation. This assignment and writing rubric have evolved in quantity and quality of details required over the past four semesters based on student feedback and faculty member observations. Thus, the learning has been two-way between the students and the instructor, affecting improvement and learning for each. The demonstration of professional written communications skills is required in each section of the semester term paper. The rubric is delineated by sections *Content, Organization and Style* addressing the application of additional course objectives and learning goals by section as follows:

Content: This rubric section identifies the nature and required attributes of the term paper's introduction. Students apply their knowledge of course content using demographic variables to describe their study's respondents. It also requires students to apply theory to their data through the analysis of respondents' motivations for behavior. Analytic and critical thinking skills are emphasized and demonstrated in the detailed analyses of respondent data. Students are required to integrate the findings of at least three peer reviewed published articles into their study, comparing their own findings with those of others through critical thinking skills.

Finally, students step back after a detailed analysis of their respondents' behaviors in the marketplace, and they address, "Why would marketers care and how could they benefit from this study's findings?" This step leads students toward viewing the bigger picture of research and how it can meaningfully contribute to the marketing discipline.

Organization: This section assesses the overall organization of the term paper, including the requires sub-headers of Introduction, Introduction of Informants, Theory and Findings, and Conclusion. The organization and connection of paragraphs and the requirement of page numbers are also assessed.

Style: This section provides an overview of the assignment requirements for APA formatting and the preparation for writing a scholarly article. In addition to focusing on demonstrating effective communication skills, this section also addresses APA formatting requirements and the preparation for the reference page required for a scholarly article.

Outcomes. After completing the research term paper assignment, students have demonstrated and applied their knowledge of consumer behavior terms including the psychological, sociological, and economic processes and influences affecting consumer choice. Students also have reflected on the implications of these factors hold for marketing practitioners. Students have learned and demonstrated qualitative research protocol and the application of theory in data analysis. Written communication skills are emphasized heavily in this assignment, as well as, the demonstration of analytical skills and critical thinking.

Student comments after completing this assignment have emphasized the surprise of being able to accomplish and produce scientific consumer behavior research themselves, the fun and excitement experienced while performing their consumer studies, as well as, how generally fascinating the study of consumer motivations and behavior can be. Thus, while students tend to experience at least some anxiety at the beginning of the semester when they are told the scope of what they will be doing in the course, after the assignment has been accomplished, they frequently communicate how much they learned, and how proud they feel to have contributed knowledge to the field of marketing through their own work.

BENEFITS OF RUBRICS ACROSS STAKEHOLDERS—MEETING AACSB CRITERIA

Through the development and application of assignment rubrics across the organizational behavior and marketing disciplines within the authors' school of business, the implementation, applied measurement of student outcomes over several semesters, and the refinement of rubric instruments over time have evidenced many similar and shared benefits realized and discussed by previous authors. These are summarized in Appendix E.

Two major stakeholder groups, faculty and students, have been individually and/or collectively assisted toward the accomplishment of learning objectives and program goals through rubric use and application. Benefits specific to faculty have included time saved in grading; the dual use of rubrics for both grading and program assessment; the role of rubrics serving to develop and encourage faculty collaboration and unifying faculty through shared goals; the development of greater insight related to the integration of core concepts, course objectives and skills across curriculum; the creation of a shared understanding of desired outcomes and consistency of practice across course sections and departments; increased objectivity, reliability and validity in the measurement of learning goals and measures with the school mission; assistance to faculty in facilitating student placement; the identification of deficits in student knowledge and skills; the identification of deficits in courses and programs; and the usefulness of rubrics in monitoring student progress.

Using rubrics has benefited students specifically by serving to be formative in students' life-long learning; clarifying expectations, providing guidelines for performance, and identifying student learning deficits; indicating potential individual learning goals; and developing a classroom environment where more focused student efforts are possible, thus resulting in the production of higher work quality and higher grade accomplishment.

Benefits of rubrics to both faculty and students have included the creation of the opportunity for open discussions for grading and learning throughout the semester; the development of greater insight related to integration of core concepts, course objectives and skills; assistance to faculty toward the goal of facilitating student placement; the identification of deficits in student knowledge and skills; the identification of deficits in courses and programs; the monitoring of student progress; and the reduced frequency of students questioning grades.

Correspondingly, each of the benefits realized by both stakeholder groups have meaningfully assisted in the process of continuous improvement, as well as serving to assist the school in its goal toward meeting AACSB accreditation criteria.

CONCLUSIONS AND FUTURE DIRECTIONS

Together, results from the courses highlighted in this practice-based study showed that rubrics benefited both faculty and students. Faculty were given opportunities to assess written and oral communication skills using standardized, but adaptable, rubrics which reinforced what faculty were teaching and how it was perceived by students. The rubrics allowed the school of business to meet AoL standards while providing faculty with flexibility for adapting the rubric to specific assignments. Finally, faculty used the rubrics to establish consistency in assessing both disciplinary content and cross-cutting skills. From the student perspective, using rubrics resulted in higher quality work and grades. Also, students reported greater clarification of assignment expectations. These findings contribute to the existing literature showing that rubrics are a key component to effective teaching pedagogy. In additional to theoretical contributions, this study provides practical implications for business schools who may want to adopt standardized flexible rubrics to improve their AoL practices.

REFERENCES

- AACSB International Accreditation Coordinating Committee and AACSB International Accreditation Quality Committee. (2007). AACSB White Paper No. 3. Retrieved from https://naspaaaccreditation.files.wordpress.com/2014/04/aacsb.pdf
- Amantea, C. A. (2004). Using rubrics to create and evaluate student projects in a marketing course. *Journal of College Teaching & Learning*, 1(4), 23–f28.
- Andrade, H. L. & Du, Y. (2005). Student perspectives on rubric-referenced assessment. *Educational & Counseling Psychology Faculty Scholarship*, 10(3), 1–11.
- Andrade, M. S., Workman, L., & Gardiner, P. G. (2020). Assurance of learning: Adaptations of standardized written and oral communication rubrics. Manuscript submitted for publication.
- Association of American Colleges and Universities. (n.d.). *What is a liberal education*? Retrieved from https://www.aacu.org/leap/what-is-a-liberal-education
- Association of American Colleges and Universities. (2011). *The LEAP vision for learning: Outcomes, practices, impact, and employers' views.* Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/leap_vision_summary.pdf
- Association of American Colleges and Universities. (2015). *The LEAP challenge: Education for a world of unscripted problems*. Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/LEAP/LEAP/ChallengeBrochure.pdf
- Association to Advance Collegiate Schools of Business (AACSB). (2013). 2013 Eligibility procedures and accreditation standards for business accreditation. Retrieved from https://www.aacsb.edu/-/media/aacsb/docs/accreditation/standards/2018-business-standards.ashx?la=en
- Attaway, A. N., Chandra, S., Dos Santos, B. L., Thatcher, M. E., & Wright, A. L. (2011). An approach to meeting AACSB assurance of learning standards in an IS core course. *Journal of Information Systems Education*, 22(4), 355–366.
- Bennett, M. M., Smart, K. L., & Kumar, A. (2017). Assurance of learning: Moving from a compliance to an improvement culture. *American Journal of Business*, 32(3–4), 152–170.

Bolton, F. C. (2006). Rubrics and adult learners. Andragogy and Assessment, 18(3), 5-6.

- Brookhart, S. (2003). Developing measurement theory for classroom assessment purposes and users. *Educational Measurement: Issues and Practices*, 22(4) 5–12.
- Burton, K. J. (2006). Designing criterion-referenced assessment. Journal of Learning Design, 1(2), 73-82.
- Calma, A. (2013). Fixing holes where the rain gets in. Journal of International Education in Business, 6(1), 35-50.
- Chang, B. & Kang, H. (2016). Challenges facing group work online. *Distance Education*, 37:1, 73–88, doi: 10.1080/01587919.2016.1154781
 Donatha, K. & Tymann, P. (201). The development and use of scoring rubrics. SIGCSE '10 proceedings of
 - the 41st ACM technical symposium on computer science education. Retrieved from https://dl.acm.org/citation.cfm?id=1734263
- Garfolo, B. T., Kelpsh, E. P., Phelps, Y., & Kelpsh, L. (2016). The use of course embedded signature assignments and rubrics in programmatic assessment. *Academy of Business Journal*, 1(1), 8–20.
- Gibson, J. W. (2011). Measuring course competencies in A school of business: The use of standardized curriculum and rubrics. *American Journal of Business Education*, 4(8), 1–6.
- Hart Research Associates (2015, January). *Falling short? College learning and career success*. Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/2015employerstudentsurvey.pdf
- Kelley, C., Tong, P, & Choi, B. J. (2010). A review of assessment of student learning programs at AACSB schools: A dean's perspective. *Journal of Education for Business*, 85, 299–306. doi: 10.1080/08832320903449519
- Kuisma, R. (1999). Criteria referenced marking of written assignments. *Assessment & Evaluation in Higher Education*, 24(1), 27–39.
- Martell, K. (2007). Assessing student learning: Are business schools making the grade? *Journal of Education for Business*, 82(4), 189–195.
- Mok, J. C. H., & Toh, A. A. L. (2015). Improving the ability of qualitative assessments to discriminate student achievement levels. *Journal of International Education in Business*, 8(1), 49–58. Retrieved from https://search-proquest-com.ezproxy.uvu.edu/docview/1675864576?accountid=14779
- Mora, J. J., & Ochoa, H. (2010). Rubrics as an evaluation tool in macroeconomics. *Economics, Management and Financial Markets*, 5(2), 237–249.
- Petropoulou, O., Vassilikopoulou, M., & Retails, S. (2011). Enriched assessment rubrics: A new medium for enabling teachers to easily assess student's performance when participating in complex interactive learning scenarios. *Operational Research*, *11*(2), 171–186.
- Scott, D. M. (2010). The new rules of marketing and PR. Hoboken, New Jersey: John Wiley & Sons.
- Smith, L. J. (2008). Grading written projects: What approaches do students find most helpful? *Journal of Education for Business*, 83(6), 325–330.
- Spiller, L., & Marold, D. (2015). Enhancing student performance in collegiate marketing competitions: The ECHO judges' perspectives. *Journal of Advertising Education*, 19(2), 30–46.
- Stevens, D. D., & Levi, A. J. (2005). *Introduction to rubrics* (1st ed.). Sterling, VA: Stylus Publishing.
- Walvoord, B., & Anderson, V. J. (1998). *Effective grading: A tool for learning and assessment*. San Francisco: Jossey-Bass.
- Wheeling, B. M., Miller, D. S., & Slocombe, T. E. (2015). Assessment at AACSB schools: A survey of deans. *Journal of Education for Business*, 90, 44–49. doi: 10.1080/08832323.2014.973824

Requirement	Weight	Excelle	nt	Adequa	ite	Margi	nal
		+	-	+	-	+	-
Content							
Audience Appropriately Addressed							
Context Understood							
Purpose Achieved							
Logical, Analytical, Critical, and Creative							
Accurately Supported							
Correct, Considerate, and Complete							
Concise							
Graphics Included When Appropriate							
Organization							
Appropriate for Genre							
Headings Effective							
Information Easily Accessible							
Paragraphs Use Topic Sentences							
Sentences Use Specific, Concrete Words							
Transitions Create Coherence							
Style							
Uses Unbiased Language							
Creates an Appropriate Tone							
Uses Concise Language							
Draws the Reader into the Message							
Wording Does Not Draw Attention to Itself							
Has a Consistent Point of View and Mood							
Contains No Errors or Only Minor Errors in							
Punctuation, Grammar, Capitalization, Number							
Usage, Spelling, Other Mechanics							
Uses the Correct Format for the Genre							

APPENDIX A School of Business Writing Rubric

Content. Sufficient information	15 points / 100%	14 points / 93%	13.5 points / 86%	11.5 points / 76%
is provided about the company	Exemplary	Competent	Partly competent	Developing
and the problem.				
Content. Data collection and	15 points / 100%	14 points / 93%	13.5 points / 86%	11.5 points / 76%
analysis provide insights into the	Exemplary	Competent	Partly competent	Developing
problem.				
Content. Recommendations are	20 points / 100%	18 points / 90%	17 points / 85%	15 points / 75%
directly linked to the data	Exemplary	Competent	Partly competent	Developing
analysis.				
Content. Recommendations are	20 points / 100%	18 points / 90%	17 points / 85%	15 points / 75%
clearly based on theory; theory	Exemplary	Competent	Partly competent	Developing
is explained to provide				
understanding of why the				
recommendations will be				
effective.				
Organization. Paragraphs are	10 points / 100%	9 points / 90%	8 points / 80%	7.5 points / 75%
well-organized; ideas are	Exemplary	Competent	Partly competent	Developing
connected across sections;				
appropriate headings and				
transitions are used.				
Style. Design is professional;	10 points / 100%	9 points / 90%	8 points / 80%	7.5 points / 75%
use of spacing, layout, color,	Exemplary	Competent	Partly competent	Developing
graphics, and media contribute				
to the presentation of the				
information.				
Style. Ideas are clear and writing	10 points / 100%	9 points / 90%	8 points / 80%	7.5 points / 75%
is grammatically correct.	Exemplary	Competent	Partly competent	Developing

APPENDIX B Organizational Behavior Team Consulting Project Rubric

<i>Content.</i> The written content on the blog homepage provides information about the blog topic for the targeted blog reader.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing
<i>Content.</i> The student needs to write at least 7 posts (<i>5 pts each</i>) from your student blog content schedule. Remember to use the posting formats we discussed in class which include lists, sectional, narrative, and multi- media posts. Each post needs to be at least 500 words except for the HOW TO post. At least one of your posts needs to be a HOW TO video showing your readers how to do something. Please follow the format discussed in class for how to create a HOW TO video. The minimum length of the HOW TO video is 1 minute 30 seconds.	40 points / 100% Exemplary	37 points / 93% Competent	34.5.5 points / 86% Partly competent	30.5 points / 76% Developing
<i>Content.</i> The frequently asked question page highlights the most important questions your blog reader may have with short, concise answers.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing
<i>Organization.</i> The blog has four required pages which include, static homepage, blog roll, frequently asked questions, and contact us. The tab navigation and pages are well-organized; ideas are connected across tabs; appropriate, consistent branding appears on the pages of the blog.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing
<i>Organization.</i> The blog has a sidebar and header with the appropriate sections. The header needs a subscribe now feature. The sidebar needs to have a search bar and links to social media accounts.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing
<i>Style</i> . Design of the blog is professional; use of spacing, layout, color, graphics, headers and media contribute to the presentation of the blog content.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing
<i>Style</i> . Ideas are clear and writing is grammatically correct. The blog uses appropriate hashtags and calls-to-action to communicate with the blog reader.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing

APPENDIX C Social Media Marketing Student Blog Rubric

<i>Content.</i> Details the activity to be covered and the author's interest in the activity in one brief paragraph. In another brief paragraph, describes all attributes of the informants (demographic and psychographic) that are relevant to the activity. <i>Content.</i> Makes use of at least 3 peer-reviewed journal articles for additional background. Ties theory/ information from all three articles to the quotations from	10 points / 100% Exemplary 15 points / 100% Exemplary	9 points / 93% Competent 13.5 points / 90% Competent	8 points / 86% Partly competent 12.75 points / 85% Partly competent	7.5 points / 75% Developing11.25 points / 75% Developing
the informants. <i>Content.</i> Data analysis is clearly based on theories of motivation; theory is explained to provide understanding of why consumers behave. Under a sub-heading "Conclusion," offers a conclusion consistent with the theories and the informants' quotations. Ties conclusion back to CB theories applied (motivations) and to the Marketing industry.	30 points / 100% Exemplary	27 points / 90% Competent	25.5 points / 85% Partly competent	22.5 points / 75% Developing
Organization. Contains necessary sub-headings including: Introduction, Introduction to Informants, Theory and Findings, and Conclusion; page numbers; follows correct APA citations format, descriptors and details the subject of the paper. Paragraphs are well-organized; ideas are connected across sections.	25 points / 100% Exemplary	22.5 points / 90% Competent	20 points / 80% Partly competent	18.75 points / 75% Developing
<i>Style.</i> Is appropriate in tone and APA structure for a marketing journal; design is professional; use of spacing, layout, color, graphics, and media contribute to the presentation of the information.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing
<i>Style.</i> Contains all articles used for the paper on a separate "References" page and employs correct APA formatting.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing

APPENDIX D Consumer Behavior Rubric

APPENDIX E Rubric Benefits for Stakeholders

Stakeholders	Outcomes	Authors
Faculty	Save time grading; Dual purpose rubrics: Use for	Donathan & Tymann
	grading and program assessment; Create open	(2010); NILO (2009); Mora &
	discussions for grading and learning throughout the	Ochoa (2010); Petropoulou,
	semester; Serve to unify faculty; Develop greater insight	Vassilikopulou & Retails
	related to integration of core concepts, course	(2011); Garfolo, Kelpsh,
	objectives & skills across curriculum; Create shared	Phelps & Kelpsh (2016); Smith
	understanding of desired outcomes & consistency of	(2008); Rau (2009); Bennett,
	practice across course sections and departments;	Smart, & Kumar (2017);
	Measure learning more validly, reliably & objectively	Gibson (2011); Calma (2013);
	across course sections and departments; Encourage	Spiller & Marold (2015);
	alignment of learning goals & measures with school	Walvoord & Anderson (1998);
	mission; Helps the faculty in accomplishment of the	Andrade, Workman &
	goal of facilitating student placement; Identify deficits	Gardiner (2020)
	in student knowledge & skills; Identify deficits in	
	courses & programs; Monitor student progress;	
	Reduced frequency of students questioning grades;	
	High quality student projects and grades, improved	
	engaged learning teaching techniques, improved	
	communication with and between students, increased	
	open dialogue between faculty and students about	
	grading and course expectations, improved clarity in	
	establishing student course expectations and how to	
	succeed, improved demonstration of course learning	
	objectives, improved class structure and course	
	organization, improved strategy for consistently	
	improving the course materials, assignments and	
	teaching methods; improved overall learning through	
	reciprocity with students.	
Students	Create open discussions for grading and	Garfolo, Kelpsh,
	learning throughout the semester; Develop greater	Phelps & Kelpsh (2016); Smith
	insight related to integration of core concepts, course	(2008); Petropoulou,
	objectives; Help in preparation for marketplace; Identify	Vassilikopulou & Retails
	deficits in student knowledge & skills; Monitor student	(2011); Rau (2009); Bennett,
	progress; Formative in students' life-long learning;	Smart, & Kumar (2017);
	Clarify expectations, provide guidelines for	Gibson (2011); Calma (2013);
	performance, identify deficits; Indicate potential	Spiller & Marold (2015); Mora
	individual learning goals; More focused student efforts,	& Ochoa (2010); Brookhart
	production of higher work quality, earning of higher	(2003); Bolton (2006); Smith

	grades; Reduced frequency of students questioning	(2008); Andrade & Du (2005);
	grades; High quality student projects and grades,	Walvoord & Anderson (1998);
	increased understanding of course expectations,	Andrade, Workman &
	increased motivation to engage, learn and succeed,	Gardiner (2020).
	increased speed of learning, increased focus on School	
	learning goals, increased engagement about writing skill	
	development, increased awareness of the importance	
	of diversity within teams, increased goal setting,	
	increased critical and analytical thinking skills; improved	
	group collaboration and performance, improved	
	qualitative research protocol and application of theory	
	in data analysis, increased learning beyond initial	
	expectations, increased excitement about learning,	
	increased pride about personal capabilities and market	
	value.	
AACSB	Create shared understanding of desired	Donathan & Tymann
	outcomes & consistency of practice across course	(2010); NILO (2009); Mora &
	sections and departments: Serve to unify faculty;	Ochoa (2010); Petropoulou,
	Develops greater insight related to integration of core	Vassilikopulou & Retails
	concepts & skills across curriculum; Measure learning	(2011); Garfolo, Kelpsh,
	more validly, reliably & objectively across course	Phelps & Kelpsh (2016); Smith
	sections and departments; Encourage alignment of	(2008); Rau (2009); Bennett,
	learning goals & measures with school mission; Identify	Smart, & Kumar (2017);
	deficits in student knowledge & skills; Identify deficits in	Gibson (2011); Calma (2013);
	courses & programs; Monitor student progress; Insights	Mora & Ochoa (2010);
	into the degree to which learning outcomes are met;	Brookhart (2003); Bolton
	Informed tactics for AACSB loop closing: Contributes	(2006); Spiller & Marold
	toward meeting AACSB criteria.	(2015); Walvoord & Anderson
		(1998); Andrade, Workman &

THE SOCCER BALL MANUFACTURING GAME: AN EXPERIENTIAL EXERCISE IN MANAGERIAL ACCOUNTING

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INTRODUCTION

Managerial accounting is a standard requirement for all business students. The students' motivation to learn is often more vocationally-based rather than an intrinsic desire to learn the subject matter (Marriott, 2004). After teaching the subject for two years, we observed that the end-of-semester results on exams relative to key learning objectives could be improved. As an example, students did not appear to consistently demonstrate achievement of learning objectives related to cost-volume-profit analysis.

Research indicates that experiential learning in the form of simulations can have a great impact on student assimilation of knowledge and skills. Learning activities that support the transformation of concrete experiences into abstract concepts are integral in creating new understandings (Kolb, 1999). To improve student learning and retention of key managerial concepts, we developed a simple yet competitive and engaging business game that spans the length of the course. The game is based on a scenario of competitive soccer ball manufacturers producing, marketing and selling their product. The students, either individually or in teams, make only three decisions each business period during the game: price, the amount of money the marketing department will spend, also referred to as marketing spend, and the quantity of units to produce. The focus of the game is on learning managerial accounting, not on business strategy. The use of the game motivates students due to interest in the ongoing results (Thein, 2006). Progressively, as the game has evolved over the last few years, additional cases and more learning applications have been developed. The game is now used as a critical component of the managerial accounting course.

THE GAME

Learning Objectives

The game provides an engaged platform throughout the length of the course for the students in support of key learning objectives (Greenlaw & Wyman 1973). Since this game is designed for managerial accounting, the objectives described by Warren, Reeve & Duchac (2016) were incorporated, including, but not limited to, describing terms, illustrating uses, and preparing reports related to:

- Managerial accounting terms, cost terms, computations, and reports
- Cost-volume-profit analysis including breakeven and target operating levels
- Job order costing
- Variable costing
- Pricing both short term and long term
- Capital investment decisions
- Cash flow analysis
- Budgeting

Game Design and Introduction to the Students

To enhance learning results, the game was designed to meet the objectives for a collegelevel course on Managerial Accounting. The game was designed to use a simple product, in this case a soccer ball, to illustrate how ongoing decisions are based on previous information and continue to impact future results. The game simulates the real world context, providing authenticity to the exercise (NSEE Annual Meeting, 1988). After the initial overview and orientation to the class, the students are introduced to the structure and purpose of the game and how it will be used throughout the course to help them gain understanding.

The game is played for a duration of several weeks within the term of the class, divided into 6-12 periods as appropriate to the course design. The game starts with each company at the same financial and marketing position. Each company is controlled by either a student or a team of students, based on the size of the class and the desire to include effective teaming as a course objective. For each period, a company must choose three input variables for the next period:

- the soccer ball price to the customer
- the number of soccer balls to be manufactured
- the amount of marketing spend.

At the beginning of each period, students or teams are provided with a current spreadsheet with the calculated number of units sold by the company based on previous units sold (assuming some customer loyalty), relative price, and relative marketing spend. All other company results are a function of the units sold, the three input variables, and the previous period's results. The current game design is "zero-sum": the overall market for soccer balls is fixed and must be shared among the competitors. In order to bring some reality to the game and avoid spreadsheet calculation challenges, there are parameters controlling the choices:

- Each choice has limits (such as the soccer balls manufactured must be in the current production relevant range of between 1 and 200,000)
- The company has limited borrowing capacity
- Inventory must be produced if it is to be sold
- The price change per period is limited (assuming existing customers would not tolerate large and unpredictable price swings).

Table	1: The Soccer Ball Manufacturin	g Game - extract showing two	comp	etitors		
	Period 3			Miami		Raleigh
			·			
Curren	nt period decisions:					
	Units manufactured	(1 to 200,000)		50,000		110,000
	Price	(\$1.00 to \$19.00)	\$	1.00	\$	11.00
	Marketing to spend	(0 to \$1,000,000)	\$	80,000	\$	200,000
Result	s: key performance indicators for	the period based on your decis	sions:		-	
	Units sold			83,342		114,656
	Market share			10.4%		14.3%
	Ending inventory in units			68,399		95,305
	Sales in dollars		\$	916,759	\$	1,261,219
	Net income in dollars		\$	127,685	\$	167,136

An example is provided in Table 1 below, and a complete game extract is available in Exhibit A

Through experiential learning, in addition to specific game cases, the game should promote learning through the business results of decisions made and extrapolating, from the game's application, the value in understanding managerial accounting and analysis (NSEE Annual Meeting, 1988). The student's course grade is partially dependent upon the student's responses to cases related to the game and other required game analysis and reflection. The performance of the student's company, relative to the other companies, has no impact on the students' course grade.

Game Execution

A game normally starts with a dissection of an inflated soccer ball to get the students' attention and, with the dissected sections, to explain the manufacturing of soccer balls. Thereafter, with student inputs, the game is run over about twelve periods each course; the students get to see the results of their decisions of others with a comparative report of all companies' performance at the end of each period. Purposefully, the students are asked to provide input for the early periods without having any significant managerial accounting tools to help them make good decisions. These early periods tend to trouble some students, who expect there is some "right" answer or input. For early decisions that would lead to significant and long term negative consequences, the students are coached to reconsider their choices.

During the course semester, cases or questions are assigned related to one of the learning objectives noted previously. Three examples are described below.

<u>Short term pricing:</u> You have been approached by a European retailer who is interested in a special order of soccer balls. You can assume that any sales to this European retailer will have no impact on your US sales or your competition. You can also ignore all shipping, customs, and tax implications.

The retailer wants to buy 20,000 soccer balls in period 8. The soccer balls will be like all your other soccer balls except the direct materials will cost \$1 more per ball due to the requirement to silk-screen the retailer's logo on each ball.

- 1. Calculate your estimate of the total cost of the 20,000 soccer ball job, including a reasonable allocation of factory overhead.
- 2. What is the minimum price you would accept for the order of 20,000 soccer balls? Why?

Long term pricing: Bigmart has been a minor customer of yours for the last few years. They have been responsible for about 10% of your sales in units. You are certain that they are also buying comparable soccer balls from some of your competition. Bigmart has approached you and two of your competitors (you don't know which two) and has requested a price quote – to be good for two years – and they will commit to buy a total of 2,500,000 to 3,600,000 soccer balls over the next two years – assuming yours is the best price. At this point, there are no product differentiations other than price (that is, you can't promise a better product, more support, or more advertising). And you should assume that the Bigmart order (if you get it) will be incremental to your current expectation of unit sales to other customers.

- 1. What is your bid per soccer ball?
- 2. Why did you choose that price?
- 3. Provide some analysis as to the incremental revenue and costs, including the potential of additional fixed costs.

<u>Capital investment decision</u>: Decide whether or not you should buy a robotic stitching machine for your soccer ball company based on capital investment analyses. An inventor has shown you her robotic machine that can stitch the interior of the soccer balls you're manufacturing. If you were to acquire the machine, you would be able to lower your direct labor cost per soccer ball manufactured from \$1 per ball to \$.50 per ball. The machine will last both physically and technologically four years. You expect that, at the end of four years, the machine will be obsolete and have no value. The inventor has offered to sell you the machine for \$_____. As a part of the purchase price, she has committed to maintain the machine for its useful life. The machine's electricity usage and other operating costs are insignificant. Your local bank has offered to lend you the money to purchase the machine. The interest rate for this long term loan is 8%. Of course, you may be able to use any excess cash for part of the purchase as well. For purposes of this analysis, you can 1) assume the labor savings occur at the end of each of the next four years, and 2) disregard any income tax implications. What is your decision? Why? Consider both quantitative and qualitative aspects of your decision.

In addition to those cases above and those in the appendix related to the primary learning objectives, the following game related questions are also considered for group discussion or individual response:

- How would manufacturing cost standards be applied to your company's operations?
- Which company performed best? How did you reach your conclusion?
- How would you compute the market value of your company?
- What one period's set of inputs would you change? Why?

STUDENT FEEDBACK

At the end of the game, and consistent with Institutional Review Board standards, the students provided feedback about the game through reflection, testing, and focus groups Student feedback was gathered from three different classes. Feedback from those students that have used the game (gathered through surveys and focus groups) produced the following information:

- Of 45 game participants, 32 strongly agree and 11 agree the game should be used in future managerial accounting classes (see student reaction data in Table 2)
- The students considered the game cases and related assignments were somewhat more helpful in their learning than the exercises from the textbook
- Student engagement in the course was clearly enhanced from the use of this competitive game. This enhanced engagement has been noted in other such applications (Marriott, 2004).
- The use of the game enhanced the integration of various other business concepts (Zeigler, 2015)
- Representative anecdotal feedback from students gathered at focus groups include:
 - "Learning from seeing the "live" numbers were very helpful; you could see how decisions played out."
 - "Without the game, I probably wouldn't have learned anything. It helped because it gave me a real life aspect to accounting."
 - "The game was helpful because there was no right or wrong answer -- you had to think and analyze."

Table 2: Student Reaction Data

1. Responding to the Game questions helped me learn accounting concepts.

	No	Strongly		
Disagree	opinion	Agree	agree	Average
1	1	23	20	4.38

2. Doing the assigned exercises from the text helped me learn accounting concepts.

	No	Strongly		
Disagree	opinion	Agree	agree	Average
3	1	27	14	4.15

3. I recommend the Game be used in future management accounting classes.

	No		Strongly	
Disagree	opinion	Agree	agree	Average
0	2	11	32	4.67

CONCLUSIONS

The long term goal is to objectively determine if enhanced learning actually results from the game. Though students indicate that they feel their learning experience was enhanced, a control group of students, without the use of the game, has yet to be run. In executing the game, we encountered some unexpected benefits. First, the students learned how brutal business competition can be, providing an authentic early experience of the real world (NSEE). Second, when teams were used instead of individuals, the value of good teamwork and communications showed up in the results and therefore, to the class. Finally, having the entire class engaged in the game, and in the current status of the game, provided an ongoing and interesting platform to clearly illustrate any managerial accounting concepts encountered during the class lectures and one-on-one student conversations. This provided monitoring and continuous improvement of the learning experience throughout the course (NSEE Annual Meeting, 1988). In essence, all of the students and the instructor were "on the same page" as we dealt with various new material.

To create more student interest, the game's simplicity and flexibility will be leveraged for more opportunities beyond those that have been discussed, such as 1) making unexpected changes to the game's parameters, during the game's execution, or 2) building more teaming exercises. We will continue the use of the game, primarily, because of the evidence of greater student engagement, with an understanding that greater engagement supports greater learning (Taylor, 2016), especially over time (Specht, 1991).

REFERENCES

Eight Principles of Good Practice for All Experiential Learning Activities. (1988). In NSEE Annual Meeting. Retrieved from https://www.nsee.org/8-principles

- Greenlaw, P.S., & Wyman, F. P. (1973). The Teaching Effectiveness of Games in Collegiate Business Courses. Simulation & Games, 4(3), 259-294.
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.
- Marriott, N. (2004). Using computerized business simulations and spreadsheet models in accounting education: a case study. *Accounting Education*, 13(sup1), 55-70.
- Specht, L. B., & Sandlin, P. K. (1991). The Differential Effects of Experiential Learning Activities and Traditional Lecture Classes in Accounting. *Simulation & Gaming*, 22(2), 196-210.
- Taylor, E. (2016). Causal Model for Student Learning Outcomes, Walker School of Business Undergraduate Program. *Piedmont College Annual Assessment Report for Southern Area of Colleges and Schools*.
- Thein, M. (2006). Teaching Managerial Accounting: A Discussion on Pedagogy. ABAC Journal, 26(1) 31-40.
- Warren, C., Reeve, J., & Duchac, J. (2016). Financial and managerial accounting. Boston, MA: Cengage.
- Zeigler, J.F. (2015). Pedagogy Change in Undergraduate Managerial Accounting Principles Courses: A Detailed Review of Simulation Use to Support Business Integration Learning, Student Engagement, Teamwork, and Assessment. Advances in Accounting Education: Teaching and Curriculum Innovations Advances in Accounting Education, 45-70.

Exhibit A – Game Extract								
1110 500		Wanuacturing Gaine	e - extract with 5 con	ipeu	1015			
ACCT 2	2020	Period 3	Company:		Miami		Raleigh	 Orlando
							0	
Current	period	decisions:						
		Units manufactured	(1 to 200,000)		50,000		110,000	15,000
		Price	(\$1.00 to \$19.00)	\$	11.00	\$	11.00	\$ 10.00
		Marketing to spend	(0 to \$1,000,000)	\$	80,000	\$	200,000	\$ 50,000
Limitations: 1) Debt must stay below \$600,000, 2) you can't sell inventory you don't have,								
	and 3)	your price change each	period must be less t	han \$	2			
Results: key performance indicators for the period based on your decisions:								
	Units s	sold			83,342		114,656	80,007
	Marke	t share			10.4%		14.3%	10.0%
	Ending	g inventory in units			68,399		95,305	68,387
	Sales i	n dollars		\$	916,759	\$,261,219	\$ 800,071
	Net inc	come in dollars		\$	127,685	\$	167,136	\$ 51,676
Balance sheet:								
	Assets	: Cash		\$	387,260	\$	287,111	\$ 343,755
		Inventory			431,816		565,129	 442,664
		Total assets		\$	<u>819,076</u>	_\$	852,240	\$ 786,420
	Liabili	ties- Debt			0		0	0
Sha	reholders' equity		\$	550,000	\$	550,000	\$	550,000
--------------------------------	----------------------------	-----------------	----	----------------	----	----------------	-----------------------------	----------
Earr	nings to date			<u>269,076</u>		<u>302,240</u>		236,420
	Total liabilities and ec	juity	\$	819.076	\$	852,240	\$	786,420
		Company:		Miami		Raleigh		Orlando
Income state	nent (per GAAP)							
Sale	S		\$	916,759	\$	261,219	\$	800,071
Cos	t of goods sold at average	cost		526,149		679,877		517,880
	Gross margin			390,610		581,342		282,192
Sale	s commissions			83,342		114,656		80,007
Mar	keting expense			80,000		200,000		50,000
Adn	ninistrative expense			100,000		100,000		100,000
Inte	rest revenue (- = ense)			417		450		(508)
	Net income		\$	127.685	\$	167.136	\$	51.676
				127,000		10/,100	- - -	01,070
Variable cost	ing income statement							
Sale	S		\$	916,759	\$	1,261,219	\$	800,071
Var	able cost of goods sold:							
	Direct materials @\$4/	unit		333,367		458,625		320,028
	Direct labor @\$1/unit			83,342		114,656		80,007
	Manufacturing mar			500,050		687,938		400,036
Var	able sales commissions @	\$1/unit		83,342		114,656		80,007
	Contribution margin			416,709		573,281		320,028
	Contribution marging	n %		45%		45%		40%
Fixe	ed costs:							
	Fixed (and indirect) fa	actory overhead		100,000		100,000		100,000
	Fixed administrative of	costs		100,000		100,000		100,000
	Fixed (for this period)	marketing costs		80,000	_	200,000		50,000
	Total fixed costs for	period		280,000		400,000		250,000
Inco	me from operations			136,709		173,281		70,028
I	nterest revenue (-expense))	_	417		450		(508)
Income - using variable costin		lg	\$	137,126	\$	173,732	\$	69,520
		Company:		Miami		Raleigh		Orlando
Statement of	cash flows							
Coll	ections from customers		\$	916,759	\$	1,261,219	\$	800,071
Paid for direct materials			\$	(200,000)	\$	(440,000)	\$	(60,000)

	Paid for direct labor		(50,000)	\$ (110,000)	\$ (15,000)
	Paid for factory overhead		(100,000)	\$ (100,000)	\$ (100,000)
	Paid for sales commissions		(83,342)	\$ (114,656)	\$ (80,007)
	Paid for marketing costs	\$	(80,000)	\$ (200,000)	\$ (50,000)
	Paid for administrative costs	\$	(100,000)	\$ (100,000)	\$ (100,000)
	Received as interest revenue (- paid expense)	\$	417	\$ 450	\$ (508)
	Cash produced (- used)		303,834	\$ 197,013	\$ 394,556
Calcula	tion of average inventory cost:				
Costs:	of beginning inventory	\$	607,965	\$ 595,006	\$ 785,544
	direct materials in new manufacturing		200,000	440,000	60,000
	direct labor in new manufacturing		50,000	110,000	15,000
	fixed factory overhead in new manufacturing		100,000	 100,000	100,000
	Total costs	\$	957,965	\$ 1,245,006	\$ 960,544
Units:	of beginning inventory		101,741	99,961	133,394
	of new manufacturing		50,000	 110,000	 15,000
	Total units		151,741	 209,961	 148,394
	Average cost per unit	\$	6.31	\$ 5.93	\$ 6.47
PREVI	OUS period information:				
	Units sold		103,259	110,039	91,606
	Units in inventory		101,741	99,961	133,394
	Balance sheet:				
	Assets: Cash		83,426	\$ 90,098	\$ -
	Inventory		607,965	595,006	785,544
	Liabilities- Debt		-	-	50,801
	Shareholders' equity-previous year		550,000	550,000	550,000
	Earnings to date		141,391	135,104	184,743

COMPILING TOWARD AN UNDERSTANDING OF SAMPLING DISTRIBUTIONS

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ABSTRACT

This paper presents a novel independent learning experience and details evidence of its effectiveness. The learning experience presented here empowers students to better understand the sampling distribution identity and the Central Limit Theorem. This improved understanding is thought to be derived from the active role that students play in assembling sampling distributions. The valuable hands-on experience requires negligible effort on the part of the instructor. The assignment is ready to use and also completely customizable. Additionally, the student output generates a convenient plagiarism check resulting from time seeded random sampling. The assignment was designed for use within a business curriculum. Access to Excel and a basic understanding of Excel operations are sufficient for student success. Results suggest that this experience improved student understanding of the sampling distribution identity.

Keywords: Sampling distribution, Statistics education research, Central Limit Theorem, Active learning, Excel, Online learning, Discovery learning

INTRODUCTION

There are several excellent resources aimed at helping students to understand sampling distributions and their properties. Some of the more popular, freely-available resources are reviewed below. The learning experience detailed here provides a novel approach to the important and challenging topic. The guiding theory for our approach is that student effort applied to the abstract process of compiling sampling distributions will yield improved understanding. The assignment and all supporting materials are available online at: <u>http://faculty.sfasu.edu/phelpsrt/bsd/</u>. To utilize the assignment simply point students to the link after covering sampling distributions and the Central Limit Theorem.

The recent trend has been a move toward applets and the powerful demonstrations that they yield. McDaniel and Green (2012) present a walk through the discoveries made along this vein of the literature. In summary, applets can improve student outcomes in the area of sampling variation and these results are stronger when students are given guidance to focus on the more relevant results. Also, Larwin and Larwin (2011) demonstrate the benefit of utilizing this type of tool within a business statistics course. More recently, many of these applets have suffered from reduced browser compatibility.

While the reviewed applets generate sampling distributions from sampling parameters using software, our assignment utilizes guided student effort and a structured Excel work environment. When approaching the concept of sampling distributions, well prepared students have a grasp of probability distributions. Also, random samples are not particularly abstract or difficult to comprehend. Students seem to lose track of the process when progressing from the randomly generated means toward a sampling distribution. The tactile experience afforded by our assignment coupled with the visual presentation of the results makes the abstract construct more concrete.

Hakeem (2001) demonstrates that active-learning can increase both student engagement and understanding in business statistics. The learning experience detailed here provides a blending of the applied nature of small population exercises with the rewarding visual presentations afforded by more sophisticated applets. Also, online delivery provides guided active-learning and student interaction with technology outside of the classroom environment. While technology in the classroom may be desirable, it is not always feasible and can be a distraction as shown in Martin (2011).

LITERATURE REVIEW

There is a plethora of literature decrying the difficulty and importance of understanding the sampling distribution identity (Becker and Greene 2001; Chance, del Mas, and Garfield 2004; Lane and Tang 2000; McDaniel and Green 2012). An understanding of the underpinnings of statistical inference becomes even more important in advanced applications of statistics. According to Kennedy (2001) "[S]tudents must stop viewing econometrics through a mathematical lens and start viewing it through the sampling distribution lens" (p. 113). The sentiment of this early piece is certainly in line with that of more recent developments as he goes on to add: "Although lecturers and textbook authors like to think otherwise, brilliant expositions seldom cause students fully to understand - such understanding comes through working out problems based on the concept to be learned" (p. 114).

Exponential improvements in computers and their use in statistical applications and pedagogy have been redefining our craft (Chance, del Mas, and Garfield 2004). These changes have made a host of new tools available including computer simulation methods (CSMs). These tools seem to have led to improvements in statistics instruction (Lane and Tang 2000; Mills 2002; Mills 2004). Many of these resources are freely available and have components aimed at improving understanding of the sampling distribution identity. For convenience, Table 1 details differences between some of the more popular options and the approach in this paper (Ours).

The Rossman/Chance applet collection (RCAC) provides a warehouse of statistical demonstrations (Rossman and Chance, n.d.). While this valuable resource does not have built in assignments, it serves as a powerful engine for statistical discovery. Also, publically available student exercises are in the development process (McDaniel and Green, 2012). Some nice features of these applets include the use of finite populations and the reporting of the histogram of the last random sample drawn. Also, their sampling distribution simulations include applications for proportions, confidence intervals, and regression predictive equations. One would be remiss not to review this resource due to its value and accessibility.

The remaining reviewed CSMs are: Web Interface for Statistics Education (WISE) from Claremont Graduate University (n.d.), the sampling distributions section of Rice Virtual Lab in Statistics (RVLS) (Lane, 1997) and Tools for Teaching and Assessing Statistical Inference (TTASI) (Garfield, delMas and Chance, 2000). The applets that drive these learning experiences are similar in nature. Also, the learning experiences themselves are more limited in scope when compared to (RCAC). The WISE learning environment provides the user with an integrated learning experience. The applet is embedded in the online question set giving it the most simple startup process of the group. It also displays the answers which can be an attractive nuisance for non-motivated students. The RVLS is more focused on sample statistics. It is unique in that it generates sampling distributions for several estimators. It has a short exercise that requires a little navigation to find. While unavailable as of 9/30/19, the TTASI experience is different in that it provides both a pre- and post-test and a more involved activity powered by the applet. It is also notable that the activity asks students to form expectations of outcomes prior to finding the solutions, as does the Wise applet. The use of business application problems is also a nice touch. The TTASI learning environment requires the acquisition and use of additional software; as a result, startup is a little cumbersome. Also, the student activity requires that labels be printed for each student or student group.

L	Sampling Distribution Educational Resource				
	<u>Ours</u>	RCAC	RVLS	WISE	TTASI
Students Compile Sampling Distribution	Yes				
Builds Experience with Excel	Yes				
Provides Physical List of Sample Means	Yes				
Allows for the Use of Finite Population	Yes	Yes			
Allows for Custom Population	Yes	Yes	Yes		
Simple Startup	Yes	Yes	Yes	Yes	
Provides Paired Exercises	Yes		Yes	Yes	Yes

The learning experience detailed here is not an applet and does not cover a broad set of statistical knowledge. The assignment is focused on improving students' understanding of the sampling distribution of the sample mean and its properties. This topic was chosen because of its high level of importance and difficulty. Additionally, there is a lack of good solutions in standard texts. The learning experience detailed here is so simple to utilize that it may be adopted by faculty who have not been bold enough to utilize more comprehensive resources. Also, positive results may encourage those who are unfamiliar with the above resources to invest the time needed to become familiar with them. This experience fills gaps in the current environment by applying active learning to an abstract process. It is also novel in that it requires the student to undergo involved processes in Excel. Exposure to some of the functionality of VBA within Excel is an additional benefit. Student feedback suggests that the assignment is both challenging and enjoyable. The remainder of the paper describes the assignment and provides evidence of its effectiveness including student responses.

THE ASSIGNMENT

The assignment materials include an instruction document, an Excel work environment and an Excel-tutorial video. They are all are available at: <u>http://faculty.sfasu.edu/phelpsrt/bsd/</u>. The instructions, provided in Appendix A, guide students through the process of compiling three approximations of sampling distributions of sample means. The process is composed of three phases. The students generate lists of random means, use the results to compile relative frequency distributions and graph the results.

The lists are generated by making simple alterations to the existing VBA code in the Excel work environment. Once students have entered the sample size, 40, 60, or 100, they click

the "Start" button. The code then randomly generates 10,000 means based on the criteria. Students then move the list of means to another worksheet and compile the results into relative frequency tables. The bins for all of the tables are automatically generated by the work environment as a function of the population. Finally, students build a scatter plot of the relative frequency distributions of the sampling distributions and the population. Students are then prompted to provide a description of the sampling distribution of the sample mean, describe how its shape changes with alterations to the sample size, contrast the shape of the sampling distributions to that of the population, and relate how their work is relevant to the course content.

The Excel Work Environment

The Excel work environment is preloaded with a dataset. It contains an "About" tab which describes and cites the data, a "Population" tab which contains the code that generates the random samples and reports their means, three staging tabs for the construction of the sampling distributions, a staging area for the graph with a preloaded relative frequency distribution of the population, and a tab that calculates results and compares them to aspects of the population. For an example outcome see Appendix B.

While the file is ready to use with preloaded data, it is also completely customizable. One may wish to substitute a population that is more interesting to the class or an estimator other than the sample mean. Data with extreme outliers should be avoided as they may diminish the usefulness of the graph output. The only other limitation on the population is that it must be small enough to fit in one column in Excel 2003 (N < 65,536). The code produces randomly generated sample means for samples of any size less than N. For insight into the evolution of the VBA code used here see Giudici, Phelps, and Calafiore (2012). The number of repetitions is also limited by the number of rows in an Excel column; however this number is only limited by the number of rows in the version of Excel being used.

The size of the population and the number of samples generated will alter the time needed to produce the results. For example, using a population of size 3,220 and a sample size of 40 the code took twenty-four seconds to generate 10,000 random sample means. Cutting the size of the population in half reduced the runtime to sixteen seconds. Increasing the sample size from 40 to 100 did not add to the time required. Available software packages can achieve these results in less time. However, the benefits of this solution include nearly universal student access to and familiarity with Excel. Additionally, no foreign Excel add-ons are required which prevents the inevitable complications that they entail.

RESULTS

Evidence of Effectiveness

Students at a regional public university were assigned the learning experience as part of an applied statistics course. Introduction to probability and statistics is a prerequisite for the course. The assignment was given after reviewing probability distributions and after all other coverage of the sampling distribution of the sample mean and the application of its properties. To measure the effectiveness of the assignment, identical pre- and post-tests were given. For the text of the pre- and post-tests see Appendix C. The pre-test was given in class after all of the relevant material had been covered. Only after the pre-tests had been collected, were students informed that their accuracy would not affect their grade. The assignment was handed out immediately after the pre-test. The post-test was completed in class, four days after the assignment had been collected. Table 2 details pre- and post-tests results.

The results demonstrate that there was a statistically significant improvement between the pre- and post-tests. This, however, is not very strong evidence that the assignment *caused* the improvement. Students may have been motivated by their uncertainty on the pre-test to study for the post-test. Both the short period of time between the tests and the fact that their pre-tests were not returned until after the post-tests were graded, support *causality*. Also, there is a statistically significant correlation between student scores on the assignment and the results on the post-test. The correlation between student results on the pre-test and the assignment is much smaller and insignificant.

Table 2 Within-Cohort Comparison							
	<u>Assign.</u>	Pre-test	Post-test				
Sample Size	41	41	41				
Average	73.63%	47.90%	68.87%				
Correlation with Assignment		0.1019	0.4003				
T-test of Difference		4.6	408				

Table 3 details a comparison of the results of the first exam (with) versus the same exam in the prior term, when the assignment was not given, (without). The results add support to the before/after results in Table 2. The with/without results provide evidence that student understanding was increased by either the teaching tool or the pre- and post-tests. The results from the first item: "Explain, in your own words, what the sampling distribution of the sample mean is." are reported under Item-1. There is a clear improvement in student performance between the two terms. The improvement resulted in a t-test that is significant at the 5% level. The result is negative in sign for the second item: "Use our summary approximations and the above information to approximate the standard deviation of the sampling distribution of the sample mean." The (with) results were not significantly different. The results for the exam as a whole suggest a statistically significant improvement. The results do not control for the overall quality of students, but are at least suggestive that the teaching tool resulted in an improved understating of the sampling distribution identity. Also, the results of the (with) exam are significantly correlated to the assignment results.

Table 3: Between Cohort Comparison							
	Item 1	Item 2	Exam				
Without $(n = 52)$	59.90%	38.56%	62.06%				
With $(n = 59)$	72.80%	37.29%	69.15%				
Correlation with Assignment	0.1957	0.0424	0.3626				

The results of the first quiz from each term provide further evidence that the improvement may have been causal. Table 4 details quiz results over the relevant material. This quiz was given in both terms after the material had been covered and before any activity related to the teaching tool. The results suggest that students were not different in their capacity to understand the sampling distribution of the sample mean or its properties and application.

Table 4: Cohort Content Knowledge Comparison

Quiz 1 Without $(n = 49)$	72.17%
Quiz 1 With $(n = 57)$	69.88%
T-test of Difference	-0.6023

Student Reaction

An early version of the VBA code was revised as a result of student input. A Computer Science major took an interest in the code and revised it to make it more efficient. His efforts reduced the time required by the program by more than 50%. His contribution was not motivated by course credit. Also, anecdotal evidence and student comments suggested that the assignment was generally appreciated.

Student Comments

- "I actually appreciated the assignment because it cleared some things up for me that I didn't understand prior to the assignment. And I am a visual person so it helped me understand in that way, too."
- "I got a chance to play with Excel when I got stuck at certain points. It helped me with using and seeing what Excel can do."
- "I think the homework really helped me learn more about the class and how sample size affects outcomes. I really enjoyed this homework. It is a great hands-on approach to learning!..."
- "... Running the program was interesting and fun..."
- "The assignment was beneficial in that it helped me learn more of how to work in Excel and it helped to see what actually happens to the sampling distribution as the sample size grows."

CONCLUSION

This assignment is intended to augment available resources aimed at guiding students to an understanding of the sampling distribution identity and its properties. Understanding the nature of the sampling distribution of the sample mean and its relationship to the Central Limit Theorem is as vital for statistical literacy as it is challenging. This understanding will give students a better foundation for developing statistical literacy. Success in this area will reward students throughout their efforts in the area of statistics and empower them to conduct statistical inference more appropriately and with increased confidence.

Our results suggest that giving students an active role in compiling large-population sampling distributions can improve their understanding of the sampling distribution identity. Our teaching tool is unique in that it effectively provides students with the structure needed to empower active participation in this involved process. Going through this independent learning experience is both straight-forward and meaningful. Feedback and personal experience suggest that the assignment is engaging and fun. Finally, utilizing this teaching tool requires little added instructor effort.

Exposing students to the existence of the Data Analysis ToolPak and VBA within Excel are added benefits of the assignment. Absent this experience, many students may have an atrophied view of the capabilities of Excel. This exposure may prompt some students to take courses that allow them to get more out of Excel, or even prompt a program tract that will enhance their quantitative skills and computer literacy. This teaching tool has benefited from several years of active service and constructive comments from faculty and students. It is our hope that others will implement this learning experience and enjoy similar results. We look forward to receiving constructive comments and perhaps independent attempts to measure its effectiveness.

ACKNOWLEDGEMENTS

We would like to thank all of those students and faculty who have provided constructive feedback. Specifically, we would like to thank James Sanders for his contribution to the development of the code as an undergraduate student. Finally, we would like to thank Michelle Everson for her kind direction and helpful comments.

REFERENCES

- Becker, W. E., and Greene, W. H. (2001). "Teaching Statistics and Econometrics to Undergraduates." Journal of Economic Perspectives 15 (4): 169–182.
- Chance, B., del Mas R., and Garfield, J. (2004). "Reasoning about Sampling Distributions." In The Challenge of Developing Statistical Literacy, Reasoning and Thinking, edited by Dani Ben-Zvi and Joan Garfield, 295– 323.
- Claremont Graduate University. (n.d.) Sampling Distribution of the Mean Tutorial. Web Interface for Statistics Education (WISE). Accessed June 1, 2020. <u>http://wise.cgu.edu/portfolio/samplingdistribution/</u>.
- Garfield J., delMas R., and Chance, B. (2000). Tools for Teaching and Assessing Statistical Inference (TTASI). Unavailable as of June 1, 2020. <u>http://www.tc.umn.edu/~delma001/stat_tools/</u>.
- Giudici, E., Phelps, R., and Calafiore, P. (2012). "An Excel Tool for Teaching the Central Limit Theorem to Undergraduate Business Students," Journal of Information Systems Technology and Planning, 5(13).
- Hakeem, S. A. (2001). "Effect of Experiential Learning in Business Statistics." Journal of Education for Business 77 (2): 95–98.
- Kennedy, P. E. (2001). "Bootstrapping Student Understanding of What Is Going on in Econometrics." The Journal of Economic Education 32 (2): 110–123.
- Lane, D. M. (1997). Sampling Distribution Simulation. Accessed June 1, 2020. <u>http://onlinestatbook.com/stat_sim/sampling_dist/index.html</u> in Lane, D. M. (Ed.) Online Statistics Education: A Multimedia Course of Study, <u>http://onlinestatbook.com/</u>.
- Lane, D. M., and Tang, Z. (2000). "Effectiveness of Simulation Training on Transfer of Statistical Concepts." Journal of Educational Computing Research 22 (4): 383–396.
- Larwin, K. H., and Larwin, D. A. (2011). "Evaluating the Use of Random Distribution Theory to Introduce Statistical Inference Concepts to Business Students." Journal of Education for Business 86 (1): 1–9.
- Martin, L. R. (2011). "Teaching Business Statistics in a Computer Lab: Benefit or Distraction?" Journal of Education for Business 86 (6): 326-331.
- McDaniel, S. N., and Green, L. (2012). "Independent Interactive Inquiry-Based Learning Modules Using Audio-Visual Instruction in Statistics." Technology Innovations in Statistics Education 6 (1).
- Mills, J. D. (2002). "Using Computer Simulation Methods to Teach Statistics: A Review of the Literature." Journal of Statistics Education 10 (1): 1–20.
- Mills, J. D. (2004). "Learning Abstract Statistics Concepts Using Simulation." Educational Research Quarterly 28 (4): 18–33.
- Rossman, A., and Chance, B. (n.d.) Rossman/Chance Applet Collection (RCAC). Accessed June 1, 2020. http://www.rossmanchance.com/applets/index.html.

APPENDIX A: ASSIGNMENT INSTRUCTIONS

Building Sampling Distributions of the Sample Mean

Please read completely prior to beginning. Visit the Webpage: <u>http://faculty.sfasu.edu/phelpsrt/bsd/</u>

Download the Excel Work Environment. Preview the "About" tab in order to get an understanding of the nature of the population that you will be working with and the appropriate scale of the sample means to be generated. It is assumed that you are familiar with the concept of a relative frequency distribution. The **Building and Graphing Probability Distributions in Excel Video** demonstrates how to compile and plot three relative frequency distributions for comparison.

Overview:

You will be using the Visual Basic tool within Excel to generate and graph approximations of sampling distributions of the sample mean. These approximations will be composed of 10,000 sample means obtained from 10,000 samples drawn randomly, with replacement, from the population. The **Excel Work Environment** together with the instructions below will make this process simple.

When finished you will print and turn in one graph including the relative frequency distribution of the population and three probability distributions of sample means, each labeled with its corresponding sample size. Your graph should include four probability distributions (Each should look distinctly different)

- 1) "Population"
- 2) "Sampling Distribution of X-bar (n = 40)"
- 3) "Sampling Distribution of X-bar (n = 60)"
- 4) "Sampling Distribution of X-bar (n = 100)"

Instructions:

After **SAVING** the **Excel Work Environment** make sure to "enable editing" and to "enable content". Once the file is opened, you will need to access the code. To do this, simply right-click on the red "Population" tab label and choose "View Code". This will reveal the VBA code that will produce the lists of sample means. The default sample size is n = 40. Also as a default, the code will produce the sample averages of 10,000 samples.

Simply return to the population tab of the Excel file and click the "Start" button to watch Excel work in conjunction with the Visual Basic code.

The code carries out the following actions:

- Draws a random sample (sample size is specified in the code) from the population in Column A
- Adds one to "Use Count" in **Column B** for each member of the population included in the sample
- Calculates the average of the randomly generated sample
- Writes the average in the first available cell in "X-bar" in Column E
- Repeats the above 9,999 times

Do not attempt any work in Excel while the program is running. Let the program run in the background. Your computer may appear to be frozen while the code runs. Simply wait until the program signals that it is done. Once the program has stopped, you will have your first list of sample means generated from the population using a sample size of 40.

Copy and paste the list of 10,000 sample averages under the heading "X-bar" in **Column A** of the tab titled "n=40". To copy click on the top value and highlight the data using [Ctrl] [Shift] and [down-arrow] keys. Once highlighted [Ctrl] with [C] will copy and [Ctrl] with [V] will paste.

Next, you must use the histogram tool, in the Data Analysis ToolPak to build a relative frequency distribution of the sample means (see the frequency distribution video if you need a refresher). This is an approximation of the sampling distribution of the sample mean. Paste the results of the histogram (both the bin and frequency results) under the appropriate sample size in the "Graph" tab and calculate the relative frequencies for the graph.

Next, return to the population tab in Excel and, if necessary, right click on the tab label "Population" to access the code. Once there, you will need to change the sample size in the Visual Basic code to n = 60 and redo all of the relevant steps above. To change the sample size in the Visual Basic window simply scroll to the top of the code and change "glngSampleSize = 40" to "glngSampleSize = 60".

Once you have done this you can again return to the "Population" tab of the Excel file and hit the "Start" button. The program will take the same amount of time to generate a second list of random sample means.

After you have

- Pasted the new results under the heading "X-bar" in the "n= 60" tab of the Excel file
- Generated a new histogram using these values
- Used the results to update the "Graph" tab

You need to repeat the above one more time using n = 100.

Next, generate a graph (**scatter type**) with four series. Three of the four series will contain the randomly generated means and their relative frequencies the fourth will contain the population.

!!! - NOTE: DO NOT INCLUDE THE WORD "MORE" OR ANY LABELS IN YOUR INPUT FOR THE GRAPH - !!!

In the end you should have one graph including a relative frequency distribution of the population and three (different looking) sampling distributions of sample means labeled with their corresponding sample sizes.

Trouble Shooting Graph: Check the boxes below.

□ The range of the x-axis variable is from a little above zero to around twenty for the population.

If the x-axis is not indicating the correct range of values or if the plots in your graph are very similar in appearance, then check the input used for the graph's x- and y-axes to be sure that no text input was included.

 \Box The height of the tallest plot is around .35.

If the height is larger than one, then go back and be sure to select the relative frequency.

Turn in the Following

Submit Excel Output:

Insert the following items into a Word document.

To do this, copy and paste special, "Picture (Enhanced Metafile)".

- 1) Customize and **insert** the graph containing four probability distributions
 - Label your axes!
 - Your graph should include four distributions (Each should look distinctly different)
 - □ "Population"
 - \Box "Sampling Distribution of X-bar (n = 40)"
 - \square "Sampling Distribution of X-bar (n = 60)"
 - \Box "Sampling Distribution of X-bar (n = 100)"
- 2) **Insert** the sheet labeled "Print Out 2"

Submit Analysis of Results:

In this section, you will look over and interpret the results that you have generated. To complete this section type up a paragraph that addresses each point below.

- 3) Detail your process and the product of that process
 - \circ $\;$ Summarize what you did. In a few sentences, describe the entire process and outcome
 - Carefully detail what the sampling distribution of the sample mean is
- 4) Describe what happens to the shape of the sampling distribution of the sample mean as the sample size increases
 - This should be apparent from your graph
 - Include the position of the population average in your discussion

- Your response must line up with what you know to be true about the sampling distribution of the sample mean
- 5) Discuss where this change in shape can be seen in the results in "Print Out 2"
 - Your response must include numbers from "Print out 2"
 - Your response must line up with what you know to be true about the sampling distribution of the sample mean
- 6) Compare and contrast the shape of sampling distributions of the sample mean to the shape of the population
 - This should be apparent from your graph
 - Include the position of the population average in your discussion
 - Your response must line up with what you know to be true about the sampling distribution of the sample mean
- 7) Discuss what you learned through this exercise
 - Your response must line up with what you know to be true about the sampling distribution of the sample mean
- 8) Discuss why what you have learned is relevant to class

Note: If your graph does not line up with what you know to be true about the sampling distribution of the sample mean it may be that your graph contains errors (see the <u>linked video</u> for the graphing process). Also, your results may differ slightly from theory because we did not take every possible sample, but rather built approximations using only 10,000 samples. As a result of the approximation, the average sample mean will not exactly equal the population mean.



APPENDIX B: EXAMPLE OUTCOME

	From	From	
	Population	Generated Random	
	Data	Sample averages	
			Difference due to
Sample			only 10,000 random
Size	μ	Average(\overline{X})	samples
n = 40	4.3029	4.3052	-0.0023
n = 60	4.3029	4.3007	0.0022
n = 100	4.3029	4.3003	0.0026
			Difference due to
Sample	σ		only 10.000 random
Size	$\overline{\sqrt{n}}$	Stand. Dev. (\overline{X})	samples
n = 40	0.2995	0.2973	0.0021
n = 60	0.2445	0.2411	0.0034
n = 100	0.1894	0.1862	0.0032

Figure B2: Example Outcome "Printout 2"

Note: This table works well as a fast plagiarism check. Since the random sample generator is seeded to the time, the only way to get two identical results here is to print the results twice.

Example Student Analysis

In this analysis, a population of 3,220 annual average U.S. county unemployment rates was used to generate three approximate sampling distributions and a frequency distribution of the population. Each of the sampling distributions used a different sample size (n=40, 60, and 100). The three sampling distributions were created by using an Excel macro to draw three sets of 10,000 random samples (each of the appropriate size) from the population and find the mean (\bar{x}) of each sample. After obtaining the results for each sample size, a graph was created in order to compare each sampling distribution to the population frequency distribution. The graph (shown above) displays an approximate sampling distribution of \bar{x} for samples of size 40, size 60, and size 100, as well as the population distribution of x. The mean and standard deviation for each set of 10,000 samples can be seen in "Print out 2."

(These distributions are approximate because in order to generate a true sampling distribution, every possible sample of size "n" would have to be included. However, for a sample of size 40, there are 1.1335E+112 possible samples. Examining all of these possible samples would require far more time and computing effort than is reasonable for this analysis. For samples of size 60 and 100, the number of possible samples is much larger.)

The distribution of \bar{x} can be considered normal under Central Limit Theorem 2, since all of the sample sizes described above exceed 30. This distribution has a theoretical mean that is equal to the population mean of 7.9276, though each of the above distributions varies slightly due to the limited number of samples examined. Likewise, the standard deviation of each distribution should be equal to the population standard deviation divided by the square root of the sample size, but minor variations can be seen here.

As the sample size increases, the standard deviation of the sampling distribution shrinks. This reduces the variability of the distribution, causing the results to gather more closely around the population mean of 7.9276. This can be seen on the above graph as an increase in the distribution's height and a decrease in width as n increases. In addition, larger sample sizes lead to slightly better estimates of the population mean. The results from "Print out 2" confirm this. As n increases from 40 to 100, the standard deviation of the sampling distributions shrinks from 0.4905 to 0.3090...

While each of the sampling distributions are normal and clustered tightly around the population mean, the population distribution is more irregular and has a greater spread. However, all four distributions have approximately the same mean of 7.9276. The sampling distributions are taller and narrower because taking the average of a sample reduces its variability. The population distribution must account for extreme results, while such results tend to be balanced out by less extreme or opposite results in a sample average.

This exercise demonstrates the tendency of \bar{x} to gather around the population mean. It also shows the distribution shape of \bar{x} , and the effect that different sample sizes will have on that distribution. From the graph

above, we can see that \bar{x} is an unbiased estimator of Mu, and that its efficiency as an estimator increases as n increases. This is relevant to the class material because it provides a visual representation of many of the concepts covered in chapter 7. It also displays the effect of the standard deviation on the shape of a distribution and demonstrates the process of collecting samples, as covered in previous chapters.

APPENDIX C: PRE- AND POST-TEST QUESTIONS

- 1) What is the sampling distribution of the sample mean?
- 2) List some of the important properties of the sampling distribution of the sample mean.
- 3) What happens to the sampling distribution of the sample mean when the sample size is increased?
- 4) What happens to the variance of the sample mean when the sample size increases?

AUDITING ISSUES ENCOUNTERED WHILE AUDITING A DEVELOPMENT STAGE CORPORATION

Jeff Hemker, Southern Illinois University Edwardsville Brad Reed, Southern Illinois University Edwardsville Cathy Tornaritis, Southern Illinois University Edwardsville

CASE DESCRIPTION

This case analyzes the auditing issues that can arise when auditing a start-up company. While the issues discussed in this case could occur at a mature company, dealing with these issues in a start-up company provides an added layer of complexity for the auditor. The audit issues encountered in this case include related party transactions, materiality decisions, subsequent events, and changes in the auditee's line of business. The case works best if it is used after these auditing topics have been covered in class. Since these topics may be covered late in the semester, the case is best used toward the end of an audit course. Appropriate for an introductory auditing course, the case has a difficulty level of 3/5. In its entirety, the case can be covered in one 75-minute class period. It works well as a discussion activity led by the instructor or one in which students work in groups and then discuss their answers as a class. If the case is used towards the end of a traditional auditing course, no outside preparation is required of the students, as they will already be familiar with the topics. If the case is being used prior to coverage of related party transactions and subsequent events, one hour of outside preparation by the students is required.

CASE SYNOPSIS

Obscene Jeans Corporation started in 2009 with the business plan to design a woman's line of jeans, labeled Obscene Brand Jeans. The company raised money and hired a well-known fashion designer. The company's first public financial statements indicated that it would take 9 months to design and manufacture the first jeans for re-sell. Five years later, the company had never produced any jeans to be sold, had consumed over \$2 million dollars, changed their business plan to making games for social media platforms, and gone through three CEOs and three auditors and was out of business. Subsequently, news reports revealed that Obscene Jeans Corporation was part of a group of companies using a pump-and-dump strategy to take advantage of unwary investors. Over its relatively short life, Obscene Jeans Corporation experienced many issues that are difficult for auditors to address. This case examines a few of the auditing issues presented by the case of Obscene Jeans Corporation. The case is interesting because, although there is official guidance provided by the auditing standards for the issues presented, the case helps illustrate the amount of professional judgment required by the auditor, even with the guidance provided by the official pronouncements.

THE CASE

Jane is a senior auditor at the CPA firm of DEF CPAs. In December 2014, Jane's CPA firm accepted a new client. The client subsequently declared bankruptcy in 2015 prior to DEF CPAs issuing an opinion on the financial statements. Investors are suing the prior auditors. Jane's firm has decided to use the issues presented at the company as a learning experience to help the firm avoid future litigation. Jane has been asked to review the company's financial statements from 2009-2014 to identify and research some of the accounting and auditing issues within the company. Jane's research focused on the publicly available financial statements from the company.

Obscene Jeans Corporation (OBJ, later changed to Obscene Brand Jeans Enterprises) was incorporated in the State of Florida in 2009 as a for-profit company. OBJ was a development stage company⁵ and planned to design a woman's line of jeans branded as Obscene Brand Jeans. The product line was intended to be sold in high-end boutiques in the United States and Italy.

A press release (See Exhibit 1) provides some background on OBJ's business plans. At this time, OBJ had not produced or sold any apparel. OBJ's designer, Rachel Stark-Cappelli, had 15 years of experience in jean design in Florence, Italy.

Exhibit 1 OBJ Press Release

<u>Obscene</u> <u>Jeans</u> (OTCQB:OBJE) visionary Robert Federowicz is a man of many subtle charms. He's a successful business executive, maintaining close contacts on both sides of the Atlantic. He's multi-lingual, which comes in handy making new friends in the party capitals of Europe.

And perhaps most impressively, the striking CEO knows how to rock a pair of jeans.

"It all starts with a good, dark wash," Federowicz says, laughing. "Styles come and go, so it's most important to find a flattering fit. You've got to pay attention to the seam placement, the yoke."

Fabulous, to be sure. But got any advice for the ladies with no idea what a "yoke" is, Robert? "Basically, you want to find the pair that makes your butt look irresistible," he says, flashing a gleaming grin. "Jeans should be sexy. Of course, finding the perfect jeans is sometimes a bit easier for men."

Creating the Perfect Pair for the ladies of the world will be the tall task tackled by Federowicz's new company. Obscene Jeans is an innovative new fashion firm determined to transform the world of denim. Backed by Federowicz, designer Rachel Stark-Cappelli brings 15 years' experience outfitting catwalks from Florence to Miami to the table, creating a one-two punch of innovation. The pair is producing new lines coupling high-fashion denims and eye-popping metallic mesh to accentuate the female form as no other jeans dare.

"Rachel's designs are not for shy women," Federowicz said. "Obscene Jeans are made to stand out. We want them to look amazing, obviously, but we're also incorporating sensual textures into the fabric.

⁵ A development stage entity was defined as an entity that had not begun its principal operations. Prior to 2014, development stage entities had reduced disclosure requirements compared to a normal corporation. In 2014, the accounting rules were changed to eliminate the distinction between a development stage entity and a traditional company.

"These are designer jeans re-imagined as a sumptuous feast for the senses," he said, his boyish grin long vanished. Federowicz takes blue jeans very seriously. "A lot of science goes into creating the perfect pair of jeans," he said. "Side seams that are pulled forward have a slimming effect. Angled pockets add a little perk to your butt. And medieval Florentine steel mesh woven into the fabric makes jeans look and feel exquisite." Federowicz envisions the Perfect Pair as the cornerstone of a fashion and lifestyle empire that will eventually include an expansive women's line, casual apparel, fragrances, even rejuvenating cosmetics.

For now, though, he and his company are focused on what Federowicz knows best. "My vision is for women to feel sexier in their Obscene Jeans than in any other garment in their closets," he says, smiling again. "We're designing amazing jeans that demand to be shown off."

Obscene Jeans produces eye-popping denim fashions for the world's sexiest women. The company competes in the fashion sector alongside True Religion Apparel, Inc. (NasdaqGS: TRLG), Maidenform Brands, Inc. (NYSE: MFB), Liz Claiborne, Inc. (NYSE: LIZ) and Polo Ralph Lauren Corp. (NYSE: RL).

 Source: (March 16, 2011 Wednesday).
 Obscene Jeans President Federowicz Envisions Denim-Wrapped

 Perfection; New Company Leader Aims to Help Women Taste Jet-Set Fasion, Lifestyle.
 Business Wire.

 Retrieved
 from
 <u>https://advance-lexis.com.libproxy.siue.edu/api/document?collection=news&id=urn:contentItem:52D9-CDW1-JBG1-81GF-00000-00&context=1516831</u>.

OBJ planned to leverage Stark-Cappelli's experience with operation and management in the apparel industry (Ms. Stark-Cappelli was later named CEO of OBJ). OBJ's financial filings stated that it planned to raise \$500,000 to implement the business plan. The following paragraphs will discuss some of the important events in the unusual life of OBJ. The narrative of these events is provided in chronological order. The events discussed either have direct audit implications or provide the context for other auditing issues.

Fiscal Year August 31, 2010

Since its founding in 2009, the company needed to raise capital, especially since it had made no sales (see Table 1). In September 2009, the company sold 9,000,000 shares of common stock to its CEO, Ms. Stark-Cappelli, for \$0.001 per share (\$9,000). The company states in its notes to the financial statements that the terms and amounts related to the stock sold to its CEO "…are not necessarily indicative of the terms and amounts that would have been incurred had comparable transactions been entered into with independent parties"⁶ (OBJ 2010). During August 2010, the company issued 3,000,000 shares of common stock to qualified investors for \$0.0175 per share, for a total of \$52,500 (When the stock started trading the price ranged \$0.60/share to \$3.00/share in the year ended August 3, 2011. These two equity transactions

⁶ It may be helpful at this point to review the professional literature regarding related parties. Guidance can be found in the Accounting Codification ASC 850 as well as in the Auditing Standards in AS 2410, available at: https://pcaobus.org/Standards/Auditing/Pages/AS2410.aspx

raised a total of \$61,500 (see Table 2). OBJ noted in the 2010 financial statements that OBJ would raise more capital. OBJ's business plan was broken into two stages; the first stage included the design of the jeans and identification of manufacturers and was estimated to cost \$150,000. Phase II included the manufacture and marketing of the jeans and was expected to cost \$350,000 (OBJ 2010).

Table 1 Obscene Leaps Corporation (A Development Stage Corporation)									
Statements of Operations									
	2014	2013	2012	2011	2010				
Sales	\$753	-	-	-	-				
Expenses:									
Game Design	165,516	-	-	-	-				
Gen. and Admin.	1,187,941	295,534	608,038	1,267,017	20,572				
Stock based Compensation	309,601	-	-	-	-				
Loss on acquisition of 20% of Novalon	25,000	-	-	-	-				
Impairment on joint venture	22,646	157,500	-	-	-				
Loss from Op.'s	(1,709,951)	(453,034)	(608,038)	(1,267,017)	(20,572)				
Other (net):									
Interest Income	31	-	-	-	-				
Other Income	94	-	-	-	-				
Interest Expense	(665,449)	407,267	(278,959)	-	-				
Net Loss	\$(2,375,275)	\$(860,301)	\$(886,997)	\$(1,267,017)	\$(20,572)				
Sources: (OBJ 2011), (OB	Sources: (OBJ 2011), (OBJ 2012), (OBJ 2013), (OBJ 2014), (OBJ 2015)								

Fiscal Year August 31, 2011

In November 2011, Ms. Stark Cappelli resigned all positions with the company (after the date of the auditor's report). The company stated that it was evaluating whether to stay in the jeans business. A new CEO (Paul Watson) was hired, was being paid \$5,000 per month, and was the only employee. During 2011, the company received \$590,353 in advances. Advances are not collateralized and are due on demand. On Sept. 26, 2011 (after the date of the financial statements but prior to the issuance of the audit report), OBJ made an agreement with the lender to refinance a portion of these advances (\$78,885) into a convertible promissory note.⁷ The note had a 10% interest rate and was convertible into stock at a valuation of \$0.01 per share. This was the first of multiple conversions of advances to convertible notes (OBJ 2011). OBJ's financial statements indicate that the advances came from third parties but do not identify the third parties.

⁷ The advances were converted during the subsequent event time period. If the reader is not familiar with the professional guidance regarding subsequent events, it will be helpful to review AS 2801 on subsequent events, available at: https://pcaobus.org/Standards/Auditing/Pages/AS2801.aspx

In November 2011, the company formed Obscene Interactive, a wholly owned subsidiary to identify trends in social media (OBJ 2012).

Table 2									
Obscene Jeans Corporation (A Development Stage Corporation) Balance Sheets									
Panel A: Balance Sheets	2014	2013	2012	2011	2010				
Assets									
Cash	\$491,256	\$75,190	\$2,652	\$45,169	\$41,761				
Receivable	10,357								
Total Current Assets	501,613		2,652		41,761				
Other Assets:									
Prepaid expenses	30,829			2,086	9,167				
Deposits	13,886								
Fixed Assets:									
Furniture & Fixtures	12,388								
Accumulated Depreciation	(180)								
Total Fixed Assets	12,208								
Intangible Assets	2,187,251								
Accumulated Amortization	(143,792)								
Total Assets	\$2,601995	\$75,190	\$2,652	\$47,255	\$50,928				
Liabilities	·								
Accounts Payable	582,761	92,381	31,054	62,991	10,000				
Advances Payable	633,160		280,372	590,353					
Current portion N. P.	731,220	76,311							
Total Current Liabilities	1,947,141	168,692	311,426	653,344	10,000				
Convertible Notes Payable	840,749	41,642							
Total Liabilities	2,787,620	210,334	311,426	653,344					
Stockholder's Deficit									
Common Stock @ par	2,904	1,523	61	34	1,200				
APIC	5,221,633	2,898,220	1,675,205	681,466	60,300				
Accumulated Deficit	(5,410,162)	(3,034,887)	(2,174,586)	(1,287,589)	(20,572)				
Total Liabilities & Stockholders'									
Deficit	\$2,601,995	\$75,190	\$2,652	\$47,255	\$50,928				
Panel B: Cash Flows									
NCF Operating Activities	(773,299)	(391,707)	(322,889)	(586,945)	(19,739)				
NCF Investing Activities	(152,285)	0	0	0	0				
NCF Financing Activities	1,341,650	464,245	280,372	590,353	61,500				

Fiscal Year August 31, 2012

On May 9, 2012, OBJ entered into a joint venture⁸ agreement with Source Street. The purpose of the joint venture was to fund the planning, development, and launch of online and mobile games. OBJ paid \$5,000 to the joint venture upon signing the agreement and planned to

⁸ A joint venture is an arrangement in which two parties pool their resources to accomplish a mutual objective. The joint venture is a separate legal entity.

make weekly payment of \$1,500 for the term of the joint venture. OBJ agreed to share profits equally with Source Street. On July 9, 2012, the joint venture agreement was renegotiated and required weekly payments of \$2,500. Profits and losses were to be split 80% to OBJ and 20% to State Street. Paul Watson (CEO) was still the only employee. On November 13, 2012, there was a 40-1 reverse stock split. Current investors were given 1 share of new stock for every 40 shares they were currently holding.⁹ The shares the investors were holding prior to the reverse split were retired. The reverse stock split occurred after the fiscal year-end but prior to the issuance of the audit report dated November 29, 2011 (Note the decrease of the Common Stock @ par account on the 2011 balance sheet in Table 2) (OBJ 2012).

Fiscal Year August 31, 2013

In 2013, OBJ continued its move into online gaming. On July 20, 2013, the company entered into a joint venture agreement with Bluff Wars to develop the Android version of its existing game Bluff Wars. For the year ended August 31, 2013, OBJ reported no sales (see Table 1) and had \$75,190 in cash on hand (see Table 2) (OBJ 2013).

Fiscal Year August 31, 2014

On May 21, 2014, OBJ entered into a joint venture agreement with Great Outdoors and created MyGO Games to operate the joint venture. The purpose of the joint venture was to expand the company's line of games. On June 23, 2014, OBJ changed its name to MyGO Games Holding Co. (MyGO). In 2014, the company reported its first sales revenue. The \$753 of sales revenue was related to online games. At fiscal year-end, August 31, 2014, MyGO had cash on hand of \$491,256 (see Table 2). The 2014 financial statements include a note stating that the company's ability to meet its short-term obligations is dependent upon the company's ability to secure additional debt or equity financing (OBJ 2014).

SUGGESTED QUESTIONS

- 1. OBJ sold stock to its CEO. This was noted in the financial statements as a related party transaction. Answer the following questions regarding related party transactions:
 - a. What is a related party?
 - b. What is the auditor's responsibility when a related party transaction is identified?
 - c. What are the risks related to a related party transaction?
- 2. The case discussion identified two different subsequent events.
 - a. What is the definition of a subsequent event per AS 2801?

⁹ As with traditional stock splits, the total value of the company's stock is unchanged. However, due to a decrease in the number of outstanding shares, each individual share increases in value.

- b. What are the two different types of subsequent events identified in AS 2801? OBJ reported two different subsequent events. According to AS 2801, which type of subsequent events did OBJ report?
- 3. The company changed from an apparel company to a social media/electronic game company. What concerns arise for the auditor when a company changes its business?
- 4. After years of reporting zero revenue, OBJE (after changing to MyGO Games) reported a small amount of revenue in 2014. Assume that the recognized revenue did not meet the revenue recognition criteria. How would PCAOB's guidance (see AS 2810, PCAOB 2017b, appendix B) on materiality (both the quantitative and qualitative) affect the auditor's consideration of the materiality of the revenue?
- 5. Due to the lack of sales, the auditor needs to consider issuing a going-concern opinion on the financial statements. Relative to the 2014 financial statements, answer the following questions related to a going-concern opinion (reviewing AS 2415, PCAOB 2017a will help answer this question).
 - a. AS 2415.03a notes that the auditor should use the evidence gathered in and planning and testing the audit objectives and determine if in the aggregate the evidence indicates there could be "substantial doubt about the entity's ability to continue as a going concern for a reasonable period of time". What conditions or events in the 2014 financial statements might indicate to the auditor that there is substantial doubt about the entity's ability to continue as a going concern?
 - b. According to AS 2415.03b, if the evidence indicates that there is substantial doubt about the company's ability to continue as a going concern, the auditor should obtain information about management's plans to mitigate the doubt about the company being a going concern as well as assess the likelihood that such plans can be effectively implemented. As noted in the case narrative, managements' plans are to obtain debt and/or equity financing to meet the short-term obligations. List some audit procedures that the auditor might perform to gather evidence regarding the probability of success for management's plans.
 - c. If the auditor determines that there is "substantial doubt about the company's ability to continue as a going concern for a reasonable period of time", what modification does the auditor make to the audit report?

REFERENCES

Public Company Accounting Oversight Board (PCAOB) 2017a. Consideration of an Entity's Ability to Continue as a Going Concern. Auditing Standard (AS) No. 2415. Washington, DC: PCAOB.

- Public Company Accounting Oversight Board (PCAOB) 2017c. *Related Parties*. Auditing Standard (AS) No. 2410. Washington, DC: PCAOB.
- Public Company Accounting Oversight Board (PCAOB) 2017d. *Subsequent Events*. Auditing Standard (AS) No. 2801. Washington, DC: PCAOB.

Financial Accounting Standards Board (FASB) 2014. *Related Party Disclosures*, Accounting Standards Codification Topic 850, Accounting Standards Update No. 2014-09. Norwalk, CT:FASB.

Public Company Accounting Oversight Board (PCAOB) 2017b. *Evaluating Audit Results*. Auditing Standard (AS) No. 2810. Washington, DC: PCAOB.

- Obscene Jeans Corporation (OBJ 2010) Form 10K, filed with the Securities & Exchange Commission for the yearendedAugust31,2010.Availableat:https://www.sec.gov/Archives/edgar/data/1489256/000116169710000888/form10-k.htm
- Obscene Jeans Corporation (OBJ 2011) Form 10K, filed with the Securities & Exchange Commission for the yearendedAugust31,2011.Availableat:https://www.sec.gov/Archives/edgar/data/1489256/000116169710000888/form10-k.htm
- Obscene Jeans Corporation (OBJ 2012) Form 10K, filed with the Securities & Exchange Commission for the year ended August 31, 2012. Available at: https://www.sec.gov/Archives/edgar/data/1489256/000116169711001051/form 10-k.htm
- Obscene Jeans Corporation (OBJ 2013) Form 10K, filed with the Securities & Exchange Commission for the year ended August 31, 2013. https://www.sec.gov/Archives/edgar/data/1489256/000116169712000953/form 10-k.htm
- Obscene Jeans Corporation (OBJ 2014) Form 10K, filed with the Securities & Exchange Commission for the year ended
 August 31, 2014.
 Available at: https://www.sec.gov/Archives/edgar/data/1489256/000116169713000898/form_10-k.htm
- Van Velzen, B. "The Titanic Ten: Exposing 10 Related OTC Stocks." Nasdaq.com, (September 3, 2015). Available at: <u>https://www.sec.gov/Archives/edgar/data/1489256/000118518514003368/mygogames10k083114.htm</u>

THE PERSISTENCE OF THE IS-LM MODEL IN INTERMEDIATE MACROECONOMICS TEXTBOOKS

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ABSTRACT

This paper reviews some of the early and current applications of investment-saving (IS)liquidity-money (LM) and aggregate demand (AD)-aggregate supply (AS) models at the intermediate macroeconomics level. While the IS-LM model is not discussed as much today as it was in the 60s and 70s, it is still an important part of some of the leading intermediate macroeconomics textbooks. By using the two models, a better understanding can be obtained of why the economy behaves a certain way in the short-run and long-run when certain key variables such as the money supply, government spending, consumption spending, or taxes change. The IS-LM model has not faded away at the intermediate macro level as some thought it would.

INTRODUCTION

David Colander (2006, pp. 173 - 188) wrote a paper about the IS-LM model a few years ago which he published in a book of readings he authored. He made the following concluding remark in the article (p. 187): "As the work in macro becomes more dependent on data extraction and agent-based simulation, the pedagogy of macro will change. It will focus more and more on standard simulations and statistical techniques that pull information from data. As it does so, the teaching of macro will move from the printed page to the computer where dynamic models and simulations will be the standard techniques. Within this computer framework the two-dimensional elegance of IS/LM will no longer be a virtue, and IS/LM will fade away, along with the intermediate macro texts that gave it lifeblood." As Mankiw states (2019, pp. 321 and 326): "...the IS curve shows the combinations of the interest rate and income that is consistent with equilibrium in the market for goods and services...the LM curve shows the combinations of the interest rate and income that are consistent with equilibrium in the market for real money balances." This paper shows that the IS-LM model has not faded away as rapidly as Colander thought it would.

The IS-LM model has been taught at the intermediate macroeconomics level for several decades. The IS-LM model was developed by Sir John Hicks (1937) to help those reading *The General Theory of Employment, Interest, and Money* by John Maynard Keynes obtain a better understanding of Keynes' message. The AD-AS model started being covered at the intermediate macro level in the 70s. The IS-LM model was covered more at the intermediate macro level in the 60s and 70s than it is today. However, it is still presented in several of the leading intermediate macroeconomics textbooks today. As a matter of fact, most intermediate macro textbooks today either discuss the IS-LM model or some aspect of it. On the other hand, at the graduate level, IS-LM is not covered as much as it was in the 60s and 70s (Colander, 2006, pp. 174 - 175).

In the first part of the paper we will cover some of the early applications of the IS-LM model (i.e., the 60s and 70s). We will explain how it was used to explain Keynesian economics. In addition, it is noted how monetary and fiscal policy were illustrated with the model.

The second part of the paper will review how the IS-LM model is used in some of the current leading intermediate macroeconomics textbooks. For example, it is noted how the model is used with the AD-AS model to clarify demand and supply shocks. The paper ends with some concluding remarks.

SOME EARLY APPLICATIONS

One of the leading intermediate macroeconomics textbooks in the 60s and 70s was by Dernburg and McDougall (1963). They developed the IS-LM model in Chapter 9. Applications of the model are given in Chapters 10, 11, 13, 15, and 17. Mathematical appendices are given at the end of the text for Chapters 10, 11, 13, and 15.

Paul Samuelson shows how important the IS-LM model was in the 70s with the following remark (1976, p. 353): "The Hicks-Hansen diagram not only succeeds in synthesizing fiscal and monetary policy, the theory of income determination, and the theory of money; in addition, it helps synthesize the monetarist and Keynesian theories of macroeconomics by providing a definite and general theory of the velocity of M. Thus, the monetarist counterrevolution reduces to debate about the shapes of LM and IS."

Figure 18-5 (p. 352) in Samuelson's textbook shows how the IS-LM model can be used to answer the above quote. The IS curve has a negative slope and LM curve has a positive slope. The monetarist believe the IS curve is very flat and the LM curve is quite steep. Therefore, fiscal policy which would shift the IS curve is not very effective. It would change real gross domestic product (GDP) very little. On the other hand, monetary policy which would shift the LM curve would have a much greater impact on GDP. Keynesians take the opposite position. They believe the IS curve is fairly steep and the LM curve is rather flat. This means that fiscal policy would have a much greater impact on the economy (real GDP) than monetary policy would.

Some intermediate macroeconomics textbooks in the 70s covered the controversy between the monetarist and Keynesians using the IS-LM model. This is covered by Wycoff (1976) in Chapter 17 of his text. The current macroeconomics text by Froyen (2013) has a chapter on the monetarist controversy.

One of the first intermediate macroeconomics textbooks to show how the IS-LM model could be used to derive the AD curve was the one by Branson (pp. 69-70). Most principles of economics textbooks did not start using AD-AS analysis until the 90s (Colander, 2006, p. 143).

SOME CURRENT APPLICATIONS

Some current leading intermediate macroeconomics textbooks that have a lot of applications with the IS-LM and AD-AS models are as follows:

- (a) Gregory Mankiw. (2019). *Macroeconomics*, (10th ed.). Worth.
- (b) Oliver Blanchard. (2017). Macroeconomics, (7th ed.). Pearson.
- (c) Able, Bernanke, and Croushore. (2017). *Macroeconomics*, (9th ed.). Pearson.
- (d) Richard Froyen. (2013). *Macroeconomics*, (10th ed.). Pearson.

The Mankiw text is among and perhaps the leading intermediate macroeconomics textbook. Since the Mankiw text is the top selling text at the intermediate level, we will use his text as the primary guide to our discussion of current applications of the IS-LM and AD-AS models. This is the text used by one of the authors when intermediate macroeconomics is taught.

Blanchard develops the IS-LM model in Chapters 5 and 6 of his text. Rather than using the typical upward sloping LM model, he uses a flat curve. He believes this is more consistent with current monetary policy since the Federal Reserve chooses an interest rate target.

In Chapter 6, Blanchard extends the IS-LM model by using two interest rates rather than one. His version of the IS-LM model is as follows (p. 121):

(1) IS: $Y = C(Y-T) + I(Y, i - \pi^e + x) + G$

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(2) LM: i = \overline{i}
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In the model, $r = i - \pi^e$, where r is the real rate of interest, i is the nominal rate of interest, and π^e is expected inflation. Spending decisions depend on the real rate of interest not the nominal rate, other things being the same. The term x stands for a risk premium. As stated by Blanchard (p.121): "It may be high because lenders perceive a higher risk that borrowers will not repay or because they are more risk averse. Or it may be high because financial intermediaries are reducing lending, out either of solvency or liquidity worries." He presents several applications with this model. The basic IS-LM model above is for a closed economy (i.e., no international trade). Also note that Y equals GDP, C equals consumption, I equals investment, G equals government spending, and T equals taxes.

In Chapter 9, Blanchard replaces the traditional AD-AS model with the IS-LM-PC model. PC means the Phillips curve. Blanchard makes this comment (p. xiii),

"The traditional aggregate supply-aggregate demand model was cumbersome and gave too optimistic view of the return of output potential. The model has been replaced by an IS-LM-PC model (where PC stands for the Phillips curve), which gives a simpler and more accurate description of the role of monetary policy and of output and inflation dynamics." In Chapters 17 through 20, the open economy is discussed using IS-LM.

Abel, Bernanke, and Croushore develop the IS-LM model in Chapter 9. They initially present applications with the FE (full-employment) model (pp. 329-338). Then, in the next part of the chapter (pp. 339-347), they use the IS-LM model to develop the AD-AS model.

In Chapter 10, Abel, Bernanke, and Croushore present the misperception theory model (pp. 390-394). They also present short-run and long-run effects of an unanticipated change in some variables. For example, they present an unanticipated increase in the money supply with this model (Figure 10.8, p. 391). In addition, an example is given for an anticipated increase in the money supply (Figure 10.9, p. 392).

In Chapter 11, they present several applications with this model from a Keynesian perspective. For example, in Figure 11.4 (p. 421), an increase in the money supply is illustrated. Figure 11.5 (p. 424) analyzes an increase in government purchases within the IS-LM framework. Figure 11.6 (p. 426) does the same thing using AD-AS analysis. In the last part of this chapter, supply and demand shocks are illustrated with the IS-LM model. Using the IS-LM model in an open economy is discussed in Chapter 13.

In the last part of this section, we will discuss how the Mankiw text presents IS-LM and AD-AS analysis. As noted above, since it is the leading text at the intermediate level, more emphasis will be placed on this textbook.

In Chapter 10, Mankiw introduces AD and AS analysis (pp. 292-301). Mankiw reviews the classical long-run model then presents the short-run Keynesian model. He then covers stabilization policy using these models.

Mankiw uses IS-LM analysis in several chapters. The chapters are as follows:

(a) Chapter 11: Aggregate Demand I: Building the IS-LM Model.

(b) Chapter 12: Aggregate Demand II: Applying the IS-LM Model.

(c) Chapter 13: The Open Economy Revisited: The Mundell-Fleming Model and the Exchange Rate Regime.

(d) Chapter 14: Aggregate Supply and the Short-Run Tradeoff between Inflation and Unemployment.

He also has some applications of the IS-LM model in Chapter 19 on Investments. In addition, in Chapter 14, he integrates the IS-LM, AD-AS, and PC models. Problem 5 on p. 429 deals with this.

In Chapter 12, he uses the IS-LM model to develop an aggregate demand curve (Figure 12-5, p. 343). As Mankiw states in Chapter 12:

"First, we examine the potential causes of fluctuations in national income. We use the IS-LM model to see how the exogenous variables (government purchases, taxes, and the money supply) influence the endogenous variables (the interest rate and national income) for a given price level. We also examine how various shocks to the goods market (the IS curve) and the money market (the LM curve) affect the interest rate and national income in the short run.

Second, we discuss how the IS-LM model fits in the model of aggregate supply and aggregate demand we introduced in Chapter 10. In particular we examine how the IS-LM model provides a theory to explain the slope and position of the aggregate demand curve. Here we relax the assumption that the price level is fixed and show that the IS-LM model implies a negative relationship between the price level and national income. This model also reveals what events shift the aggregate demand curve and in what direction" (p. 333).

As Mankiw also states in Chapter 12 (p. 334), "The IS-LM model has played a central role in the history of economic thought, and it offers a powerful lens through which to view economic history, but it has much modern significance as well. Throughout this chapter we will see that the model can also shed light on more recent fluctuations in the economy; two case studies in the chapter use it to examine the recessions that began in 2001 and 2008. Moreover, as we will see in Chapter 15, the logic of the IS-LM model provides a good foundation for understanding newer and more sophisticated theories of the business cycle."

Mankiw notes (pp. 346-347) that the IS-LM model can be used to show the main difference between the Keynesian and classical models of income determination. With the basic IS-LM model, we have two equations but three unknown variables. The unknown variables are the price level (P), the level of income (Y), and the interest rate (r). The classical model solves the IS-LM model by making the assumption that the economy always achieves the full-employment output. Therefore, r and P will adjust to achieve this equilibrium output.

With the Keynesian approach, P is given or fixed in the short-run. Y and r will then adjust to achieve an equilibrium output level. This level of equilibrium output can be at less than full-employment in contrast to the full-employment output level with the classical model. Mankiw shows the relationship between the IS-LM and AD-AS models on pp. 346-350. (See Figures 12-6 and 12-7 on pp. 344-345.)

To analyze the Great Depression, Mankiw changes the form of the original IS-LM model (pp. 350-352). He makes investment spending a function of the *ex ante* real interest rate ($r = i - E\pi$, where r is the real rate, i is the nominal rate, and $E\pi$ is the expected rate of inflation). The adjusted IS-LM model is as follows:

$$\begin{split} \mathbf{Y} &= \mathbf{C}(\mathbf{Y}\text{-}\mathbf{T}) + \mathbf{I} \ (\mathbf{i} - \mathbf{E}\pi) + \mathbf{G} & \text{IS,} \\ \mathbf{M}/\mathbf{P} &= \mathbf{L}(\mathbf{i}, \ \mathbf{Y}) & \text{LM.} \end{split}$$

The 25 percent decline in the money supply (M) from 1929-1933 caused the price level to fall by 22 percent over this period of time. This caused a large increase in the real interest rate and, therefore, caused a shift of the IS curve to the left. Figure 12-8, p. 352, presents a graphical representation of this.

CONCLUDING REMARKS

Maybe someday in the future IS-LM will fade away, as noted by Colander, but based on some of the leading intermediate macro textbooks reviewed in this paper, this has not happened. As noted in the body of this paper, such authors as Blanchard have made additions to the model, but it is still a very important part of the text. As Blanchard has stated in his text (p. 89), "Macroeconomics has made substantial progress since the early 1940s. This is why the IS-LM model is treated in this chapter and the next rather than in Chapter 24 of this book. (If you had taken this course 40 years ago, you would be nearly done!) But to most economists, the IS-LM model still represents an essential building block—one that, despite its simplicity, captures much of what happens in the economy in the short run. This is why the IS-LM model is still taught and used today."

In the 7th edition of his text, Mankiw added a new chapter that presented a dynamic model of the economy. This is Chapter 15 in the 10th edition. As stated by Mankiw (p. 436), "Compared to the models in preceding chapters, the dynamic AD-AS model is closer to those studied by economists at the research frontier. Moreover, economists involved in setting macroeconomic policy, including those working in central banks around the world, often use versions of this model when analyzing the impact of economic events on output and inflation." Therefore, it appears that Mankiw is aware of the need for students at the intermediate level in macro to be introduced to what is being done at the research frontier in macroeconomics.

The macro textbooks discussed above are not the only macro texts that discuss some aspect of the IS-LM model. For example, the textbooks by Jones, Mishkin, and Hubbard, O'Brien, and Rafferty, and Dornbusch, Fischer, and Startz discuss the model. They also use the AD-AS model.

Combining the IS-LM model with the AD-AS model gives a better understanding of why the economy behaves a particular way when certain variables change. As Abel, Bernanke, and Croushore have stated (p. 340), "Why then do we bother to present both models?...The IS-LM model relates the real interest rate to output, and the AD-AS model relates the price level to output. Thus the IS-LM model is more useful for examining the various shocks on the real interest rate and on variables, such as saving and investment that depend on the real interest rate...However, for issues related to the price level, or inflation, the AD-AS model is more convenient to use." To illustrate this point, the following problem from a recent exam given by one of the authors will be used:

Use the IS-LM and AD-AS diagrams to describe the short-run and long-run effects of changes in GDP, the interest rate, the price level, consumption, investment, and real money balances with an increase in investment spending. Assume the economy is at long-run equilibrium when this happens.

Answer:

This question can be answered if the student understands the material presented in Chapters 11 and 12 of Mankiw. The following IS-LM model, as presented in Mankiw (p. 346), is assumed:

$$Y = C (Y - T) + I (r) + G$$
 IS
M/P = L (r, Y) LM

Investment spending is negatively related to r (the real interest rate). Money is negatively related to r and positively related to Y (GDP).



In Figure 1, as I goes up, IS shifts up to IS_2 . This puts upward pressure on r and reduces the increase in I; however, I still increases. As Y increases, so does consumption. As AD shifts to the right to AD₂, the SRAS shifts upward to SRAS₂ in the long-run. This is due to the increased demand for labor and other factors of production. As the price level increases, real money balances are reduced causing an upward shift of the LM curve to LM_2 . Finally, a new

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long-run equilibrium is reached at C (the same as before) but at a higher price and interest rate. Consumption and Investment spending go back to where they were before.

As this paper indicates, most of the leading intermediate macro textbooks still have several chapters devoted to the IS-LM model. They show how the IS-LM and AD-AS models can be used to explain how various changes in economic variables such as changes in government spending and investment spending effect the economy both in the short-run and long-run. It does appear that the IS-LM model has not faded away as rapidly as some thought it would.

REFERENCES

- Abel, Andrew B., Ben S. Bernanke, and Dean Croushore (2017). Macroeconomics, (9th ed.). Pearson.
- Blanchard, Olivier (2017). *Macroeconomics*, (7th ed.). Pearson.
- Branson, William H. (1972). *Macroeconomic Theory and Policy*, Harper and Row.
- Colander, David (2006). "The Strange Persistence of the IS/LM Model," in *The Stories Economist Tell: Essays on the Art of Teaching Economics*, ed. David Colander, McGraw-Hill/Irwin.
- Dernburg, Thomas, and Duncan M. McDougall (1963). *Macroeconomics: The Measurement, Analysis, and Control of Aggregate Economic Activity*, (2nd ed.). McGraw-Hill/Irwin.
- Dornbusch, Rudiger, Stanley Fisher, and Richard Startz (2018). *Macroeconomics*, (13th ed.). McGraw-Hill/Irwin.

Froyen, Richard T. (2013). *Macroeconomics: Theories and Policies*, (10th ed.). Pearson.

Hicks, Sir John R. (1937). Keynes and the Classics: A Suggested Interpretation. *Econometrica* 5, 147-159.

Hubbard, R. Glenn, Anthony Patrick O'Brien, and Matthew Rafferty. (2014). Macroeconomics, (2nd ed.). Pearson.

Jones, Charles I. (2018). Macroeconomics, (4th ed.). Norton.

Keynes, John Maynard. (1936). The General Theory of Employment, Interest, and Money, Macmillan.

Mankiw, N. Gregory. (2019). *Macroeconomics*, (10th ed.). Worth.

Mishkin, Frederic S. (2015). *Macroeconomics: Policy and Practice*, (2nd ed.). Pearson.

Samuelson, Paul A. (1976). *Economics*, (10th ed.). McGraw-Hill.

Wykoff, Frank C. (1976). Macroeconomics: Theory, Evidence, and Policy, Prentice-Hall.

ASSURANCE OF LEARNING: ADAPTATONS OF STANDARDIZED WRITTEN AND ORAL COMMUNICATION RUBRICS

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ABSTRACT

Schools of business accredited by the Association to Advance Collegiate Schools of Business are familiar with standards for Assurance of Learning, which require systematic processes for documenting student learning, determining the extent to which learning goals are being achieved, and ensure that needed curricular and pedagogical changes are implemented to improve outcomes. Written and oral communication are the most frequently and most consistently measured skills in AACSB business schools. This practice-based study reviews the literature on the impact of rubrics on faculty and students and explores faculty adaptations of standardized writing rubrics used by an AACSB-accredited school of business. It demonstrates from multiple faculty perspectives and courses the positive impact of rubrics on teaching and learning.

INTRODUCTION

Employers agree that higher education graduates need discipline-specific knowledge and cross-cutting skills such as written and oral communication, teamwork, critical thinking, ethical decision-making, and the ability to apply knowledge to real-life contexts (Association of American Colleges & Schools, [AAC&U] 2011, 2015; Hart Research Associates, 2015). These skills are reflective of a liberal education, or "an approach to learning that empowers individuals and prepares them to deal with complexity, diversity, and change" (Association of American Colleges & Schools, [AAC&U], n. d.).

College graduates agree these cross-cutting skills are important and researchers have observed that graduates rate the quality of these skills much higher than employers (Hart Research Associates, 2015; Schneider, 2015). For example, 65% of recent college graduates surveyed indicated being well prepared in written communication while only 27% of employers felt graduates possessed adequate writing skills (Hart Research Associates, 2015). Consequently, institutions of higher education must not only design learning experiences that help students develop cross-cutting skills, but also help students accurately assess their own abilities.

Schools of business accredited by the Association to Advance Collegiate Schools of Business (AACSB) are familiar with standards for Assurance of Learning (AoL). AoL requires the use of "well documented, systematic processes for determining and revising degree program learning goals; designing, delivering, and improving degree program curricula to achieve learning goals; and demonstrating that degree program learning goals have been met" (AACSB, p. 32). Written and oral communication are the most frequently and most consistently measured skills in AACSB business schools (Martell, 2007; Kelley, Tong, & Choi, 2010; Wheeling, Miller, & Slocombe, 2015), while rubric-scored written assignments are the most common assessment method reported by AACSB deans and are in place at 89% of schools (Wheeling et al., 2015). However, faculty members in schools of business may have difficulty adapting standardized rubrics used for these assessment purposes to their specific course assignments.

To address this challenge, this practice-based study explores faculty adaptations of a standardized writing rubric used by an AACSB-accredited school of business. The authors define rubrics broadly as a document that communicates expectations for an assignment and provides consistent criteria for grading. Rubrics help students self-evaluate their work and provide formative assessment; they are using for teaching purposes rather than only evaluation purposes.

In this paper, the authors first discuss the impact of rubrics on key stakeholders. Then they share how a standardized rubric was adapted and implemented by faculty in three different courses, and their perspectives regarding rubric implementation and learning. They conclude with thoughts on the efficacy of rubrics for the enhancement of teaching and learning. The purpose of this paper is not to report on learning gains for purposes of AoL but to demonstrate how a school-wide writing rubric can be adapted to reflect course- and assignment-specific needs for faculty and provide formative feedback to students.

LITERATURE REVIEW

AACSB standards indicate that business schools must strive to meet the expectations of stakeholders, such as employers and students, and establish faculty-led processes for the development and measurement of learning outcomes. The faculty determines learning goals, curricular content, delivery methods, and learning measures. It also acts on assessment findings to improve curricula and pedagogy (AACSB, 2013; AACSB International Accreditation Coordinating Committee and AACSB International Accreditation Quality Committee, 2007; Attaway, Chandra, Dos Santos, Thatcher, & Wright, 2011). In this section, the authors consider research relevant to the impact of rubrics on faculty members and students.

Faculty

Engaging faculty members in the assessment of learning, particularly for accreditation purposes, can be a challenge. They may not perceive the need to change current practices or may view AoL as an additional demand on their time (Bennett, Smart, & Kuma, 2017). In particular, designing rubrics may entail considerable effort (Amantea, 2004); however, when faculty invest this effort upfront, they save time on grading and find less need to make extensive comments on student work (Donathan & Tymann, 2010; National Institute for Learning Outcomes, 2009; Mora & Ochoa, 2010; Petropoulou, Vassilikopoulou, & Retails, 2011). Another strategy for addressing time concerns is adopting dual purpose rubrics—used for both grading and program assessment (Garfolo, Kelpsh, Phelps, & Kelpsh, 2016).

Rubrics provide the opportunity for faculty members to openly discuss learning and measure it in an objective, reliable, and valid way across assignments, course sections, and departments (Garfolo et al., 2016; Smith, 2008; Petropoulou et al., 2011). Collaboration on rubric development may involve providing structures for faculty to work across departments to create shared understanding of outcomes and establish consistency of practice (Bennett, Smart, & Kumar, 2017), or forming teams of faculty members, markers, and teaching and learning staff to create and validate rubrics (Calma, 2013).

Collaborative rubric development results in greater insight into how concepts and skills can be introduced and reinforced across the curriculum (Bennett et al., 2017). It can unify faculty and encourage the alignment of learning goals and measures with the school's mission (Rau, 2009). Collaborative practices support AACSB standards that "curricula management facilitates faculty-faculty and faculty-staff interactions and engagement to support development and management of both curricula and the learning process" (AACSB, 2013, p. 33).

Collaboration among faculty and academic staff in the creation of rubrics can be enhanced by incorporating the perspective of employers, which is critical in preparing business graduates for their professions. These perspectives can be used to create rubrics to judge student work, and thereby help instructors prepare students for collegiate marketing competitions, clientbased projects, and ultimately for their professions (Spiller & Marold, 2015). This approach is also clearly aligned with AACSB standards indicating that "learning goals and curricula [should] reflect expectations of stakeholders" (AACSB, 2013, p. 33).

Rubrics help faculty measure and identify deficits in student knowledge and skills, including cross-cutting skills. For example, an analysis of student writing samples rated as *poor* or *fair* on a rubric with four broad categories (organization and coherence of ideas; clarity of sentences and paragraphs; spelling, grammar, and use of English; and use of references) helped one school of business identify specific issues in students' written communication, such as tense confusion, unnecessarily complex language that obscured meaning, use of technical jargon, incorrect use of apostrophes, lack of sentence clarity, the need for greater coherence, and failure to review work prior to submission (Calma, 2013).

Such findings can be used by faculty and departments to change their approaches and assist students in mastering needed skills. Findings help individual instructors monitor progress, determine if content has been sufficiently addressed, and know when concepts need to be revisited (Rau, 2009). They "provide both professors and departments with aggregate information about the development and evolution of competencies of a group of students" (Mora & Ochoa, 2010, p. 242). The analysis of information obtained from rubric-based assessment assists in determining "deficiencies in a particular course or program" so that faculty can take "corrective action" (Rau, 2009, p. 32). In one case, a marketing program was able to determine that writing skills, as measured by a rubric, improved by 50% by the third week of the semester (Rau, 2009). Similar to the study cited earlier (Calma, 2013), rubrics helped the program identify the specific aspects of writing with which students had the most difficulty. Without a rubric, specific strengths and weaknesses in student performance is difficult to ascertain.

An issue with the use of rubrics is the spread of scores. Findings differ on this with some reporting a range of scores with the use of criteria-referenced rubrics (Burton, 2006; Kuisma,

1999) and others identifying problems with assessors clustering scores at the high end (Miller, 2003). The latter occurs when evaluators cannot discriminate levels of performance, the language in the instrument is difficult to interpret, or insufficient scoring choices are offered (Miller, 2003). A related issue is instructors evaluating their own students' work (Mok & Toh, 2015). Blind marking is more objective and can address issues with insufficient spread of marks (Mok & Toh, 2015). Other factors that impact the effectiveness of grading with a rubric are the quality of the rubric itself, the experience of the raters, and the presence or absence of rater training, particularly when rubrics are used across assignments and courses (Mok & Toh, 2015).

These studies demonstrate the effectiveness of collaboration in the development of rubrics, in identifying weaknesses in skills, and in measuring cross-cutting skills in business disciplines. When faculty understand the purpose of AoL, the need to change current practices, and the value of rubrics, they recognize that rubrics provide an opportunity for feedback on their teaching and curriculum, enabling them to see needed areas of improvement and close the assessment loop (Bennett et al., 2017). Extensive evidence exists that rubrics assist faculty members in measuring learning so that "the school can evaluate its students' success at achieving learning goals, use the measures to plan improvement efforts, and . . . provide feedback and guidance for individual students" (AACSB, 2013, p. 33).

Students

From the student perspective, rubrics clarify expectations, provide guidelines for performance, identify issues needing to be addressed (Bolton, 2006; Mora & Ochoa, 2010; Rau, 2009; Smith, 2008), and indicate potential learning goals (Garfolo et al., 2016). Students experience greater comfort when they are familiar with expectations, know their standing in a course, and can identify what to improve on future assignments (Gibson, 2011; Mora & Ochoa, 2010). Commentary on rubrics can also reduce the frequency of students' questions about grades (Walvoord & Anderson, 1998), an advantage to both students and instructors. Conversations can be redirected from grades to faculty-student dialogue on learning (Garfolo et al., 2016). Rubrics help students know what the instructor considers important (Mora & Ochoa, 2010).

Getting student input about rubrics and grading preferences is critical to improving teaching and learning. Students in a marketing class preferred rubrics on writing assignments that had ratings as well as explanatory comments; the comments helped them understand the ratings and make improvements, and they appreciated feedback on both strengths and weaknesses (Smith, 2008). The rubric/matrix approach was preferred over two other methods—a paragraph that stated problems within the paper and areas of improvement, and a paragraph that identified three positive traits as well as areas for improvement. Students preferred the rubric as it provided clarity, assignment information, objectivity, and standardization. It also conveyed to them that instructors had thoughtfully prepared the assignment. Overall, students appreciated grading matrices that identified traits, weights for those traits, and assignment descriptions (Smith, 2008).

Rubrics are more successful when they are shared and discussed with students and their use is reinforced throughout the semester (Rau, 2009). Effective use of rubrics involves including them in syllabi or course learning management systems, ensuring that students are

familiar with rubrics specific to each assignment (students may even be asked to cut and paste the rubrics into their assignment submissions to demonstrate their awareness of them), and connecting rubrics to course objectives (Gibson, 2011). Even so, students may have varying opinions about their value, which may depend on the specific rubric being used. In one study, students rated seven different rubrics that had been implemented in their program of study; they scored an oral rubric the highest and an analytic rubric as the least useful; those who scored one rubric low, scored all the rubrics low (Rau, 2009). Rationale for the ratings was not collected.

These studies indicate the value of student input in rubric development. As with faculty and staff collaborations and employer input, students are also identified in AACSB standards as a critical stakeholder. AoL documentation suggests that "schools incorporate perspectives from stakeholders, including organizations employing graduates, alumni, students, the university community, policy makers, etc., into curricula management processes" (AACSB, 2013, p. 32). Rubrics also "facilitate and encourage frequent, productive student-student and student-faculty interaction designed to achieve learning goals" (AACSB, 2013, p. 33).

RUBRIC DEVELOPMENT, IMPLEMENTATION, AND LEARNING OUTCOMES

All students at the university where this study occurred are required to take two writing enriched courses beyond their general education writing course. The writing enriched courses for business majors are a business communication course and an introduction to organizational behavior course. Business school faculty who attended an AoL assessment workshop collaborated to create a standardized rubric to measure written communication for AoL purposes. The writing rubric is used in the writing enriched courses and encouraged for all courses that emphasize written communication.

The rubric was designed so that faculty members could adapt it to a range of assignments. It contains three major categories – content (what is said), organization, (when and where it is said) and style (how it is said); however, the specifics of each of these sections can vary by instructor (see Appendix A). The authors acknowledge that in some respects the rubric provides standardized guidelines rather than descriptors for varying levels of performance. The primary intent of this paper is demonstrate how standards for writing can be adapted yet address the need for consistency.

The authors next provide examples of how the writing rubric has been implemented in the writing enhanced introduction to organizational behavior course, a marketing with social media course, and a consumer behavior course. The authors share faculty perspectives on the use of the rubrics and their perspectives on student learning. It should be noted that in some cases, the rubrics are not specifically organized by the school of business rubric categories, yet still retain the intent of these categories.

It should also be noted that the assignments described are not collected and analyzed for AoL purposes. A specific pre/post writing assessment is measured for AoL purposes. The intent of the rubric is to ensure that all faculty are using consistent (yet flexible) standards for written communication so that students writing skills are focused on throughout the curriculum and

students receive formative feedback and increase their awareness of what is involved in mastery of those skills.

Organizational Behavior

All business majors take an introduction to organizational behavior course. The course is designated as a writing enriched course, meaning that students receive instruction in writing and feedback on their writing. All sections of the course are consistent in that instructors use the same textbook. They also require a community project, which entails students working in teams to consult with a local business. Students identify a problem, collect data, examine the problem through the theories and concepts in the course, and make recommendations. The purpose of the project is to obtain real life experience applying the concepts of organizational behavior and to learn to work effectively in teams.

Rubric application and adaptation. Students create an artifact in their team ePortfolios to report on their consulting project. The ePortfolios are a compilation of various management challenges, reflections, and other assignments that students complete during the semester with the project being the culminating task. ePortfolios are an alternative form of assessment that have been recently added to the list of high impact practices (HIPs) (Kuh, 2008; Kuh et al., 2017; Watson, Kuh, Rhodes, Light, & Chen, 2016). They provide students with the opportunity to explore and apply course content, thereby deepening their learning.

Students are provided with a course-specific adapted version of the school of business writing rubric which outlines expectations for the project artifact (See Appendix B). The rubric, specifically the categories of content, organization, and style, can be adapted to reflect the goals and parameters of any assignment. While the categories remain constant, the specifics within each category are instructor identified. Additionally, point values can vary by instructors for each of the categories.

Students are required to meet with writing tutors to review two drafts of the consulting project artifact with revisions in between. They use the course-adapted rubric as a guide to draft their papers and prepare for the tutor appointments. Ideally, all team members are present for the tutoring appointments so that all have the opportunity to learn effective writing skills. This can be facilitated by arranging for tutors to attend class for face-to-face delivery or virtual appointments for online courses. The tutors assign points to each team based on their level of preparation as reflected in a checklist based on the rubric. This reinforces the importance of the rubric in guiding students and helping them understand expectations. When the assignment is submitted, the instructor provides commentary in the rubric matrix within the learning management system and allows additional revisions before assigning a final grade.

It should be noted that the ePortfolio artifact for the team project provides students with the opportunity to be creative, incorporate graphics and digital media, and present their work in an appealing, professional way. It helps them develop their writing skills as the content for the artifact is the same as for a traditional written report. This format has numerous applications for the business world as it entails writing, presentation, design, and technology skills.

Outcomes. The checklist and accompanying rubric have resulted in high quality projects. Use of the rubric is encouraged by means of the tutor appointments. Teams are motivated to

receive points toward their grade for these appointments, thus they focus on the rubric descriptors. The rubric helps them know what is expected (Bolton, 2006; Mora & Ochoa, 2010; Rau, 2009; Smith, 2008). If they do not focus on the rubric, this is brought to their attention in the first tutor appointment. They then revise the paper as needed adhering more closely to the rubric for the second appointment.

Examining project grades is not the best measure of rubric benefits as students complete at least two drafts prior to submission and the instructor provides feedback if students submit the artifact prior to the deadline. In these cases, use of the rubric is further reinforced as the instructor provides comments within the rubric matrix. Grades are generally high as a result of multiple revisions and the guidance provided by means of the rubric. This motivates students to improve their writing skills. They know how they will be graded and receive feedback directly related to set standards.

Giving rubric-based feedback across multiple project drafts has distinct advantages. It motivates students to improve as they discuss the feedback in their teams. They benefit from the skill sets of team members, learn from each other as they modify their work, and further develop their skills and knowledge. They learn to value diversity, collaborate, and manage differing points of view. Teams may even set goals such as improving their communication processes to ensure individual responsibilities are fulfilled and work is submitted on time or having an error-free paper on the next draft. The rubric results in focused efforts as students understand expectations, are enabled to produce higher quality work, and as a result, earn higher scores.

Rubrics also create an opportunity for open discussions about performance. This occurs between the tutors and students and the faculty member and students; thus, students obtain feedback from multiple sources, and may need to manage differing viewpoints. This is often the case as different tutors are assigned to teams for the two tutor sessions, and the instructor may add a third perspective. Tutors typically offer writing-focused commentary while the instructor may remark on the writing and also direct students to theories and concepts to strengthen their recommendations. As such, students not only develop writing skills, but also critical thinking as they consider the different perspectives on their work to determine what to change and how; they also cultivate the ability to integrate course concepts and apply them to real-life contexts.

Overall, the rubric-based writing, feedback, and revision process prepares students with key cross-cutting skills valued by employers, such as communication, teamwork, critical thinking, application of knowledge, and experiences with diversity, thereby providing them with a strong foundation for lifelong learning (AAC&U 2011, 2015; Hart Research Associates, 2015). The practices described also offer insights into the degree to which course learning outcomes are met. For example, in the organizational behavior course, the instructor obtains a clear perspective on students' ability to explain and apply the theories on which their consulting project recommendations are made.

Although the consulting project artifact is not used specifically for purposes of AoL in the school of business, the standardized rubric categories reinforce the importance of written communication and help students understand its elements. As such, all written communication assignments in business courses help reinforce standards and prepare students for the writing assessment, administered in the capstone course, that is officially used for AoL purposes.
Marketing with Social Media

Students who major in digital marketing are required to take a marketing with social media course as a core requirement. Faculty teaching in other majors also promote the course as an elective. The course learning objectives require students to create written content for a marketing blog and social media platforms including Facebook, Instagram, and LinkedIn. While not officially designated as a writing enriched course, students write seven blog posts, ten social media posts, and an end-of-semester social media plan for a local client.

All sections in the course use a consistent course design, textbook, and social media ad buying simulation. Additionally, students create a student blog that uses the business written communication rubric. The purpose of these assignments is to give students a real-life experience writing social media content and learning how consumers engage with content on social media platforms. Students are taught how to write blog posts and how to write for social media audiences. While writing for social media has similarities with traditional academic writing, it uses a casual voice with simple and short communication that is personal to the reader. The writing style at times breaks traditional rules with the hope of motivating the reader to like, comment, or share (Scott, 2010).

Rubric application and adaption. The standard business school rubric was adapted and used for the student blog assignment. The faculty member used the school of business writing rubric and adapted the specific sections to teach the difference between traditional writing and writing for social media. The faculty member maintained the basic categories of the rubric (content, organization, and style) and included more detailed information in the rubric for how these may change for social media. Students were taught the basic concept that written communication needs to have strong content, organization, and style, while at the same time students were taught that these elements are different for the fast-past, shorter social media platforms. Students were also taught that in the business world all writing needs to have content organization, and style, but the written medium of delivery may change how those elements appear. The student blog rubric (Appendix C) provides clarity about required elements along with level of performance expected for each section of the business school rubric. Showing students, the required elements at the beginning of the project may reduce anxiety and the frequency of questions asked to the professor (Walvoord & Anderson, 1998). Additionally, the rubric can be used as a framework for graders to evaluate the work. Using a consistent rubric in the learning management system with points assigned to sections of the rubric may also reduce questions about grading subjectivity.

Instructors who provide a clear rubric create guidelines for how to build a project allows student to have more timely, clear communication (Chang & Kang, 2016). Each week during the semester, the professor orally reviewed the rubric while showing a written version of the rubric on the classroom screen. Students were able to both hear and see the rubric weekly. In addition, the instructor spent more detailed time on sections of the rubric that correlated to what the students were learning that week in class. The rubric was broken into small parts and the students were given sections of the rubric each week to learn and implement on their student blog.

Outcomes. Using a rubric has positively impacted the students' blogs in terms of learning adoption curve, student discussion, student awareness of different sections of the blog, and student work quality. The social media marketing class is usually taken during the senior year. At this point, students are familiar with the standard business school written communication rubric. Students no longer question the need for the written requirements; rather students are interested in how the frameworks works in a social media medium. Ultimately, students discuss with the teacher how to take this traditional writing framework and make it work for a writing platform that limits words and characters. Using the standard framework from other classes helps students move to more advanced ideas about writing rapidly because they have already mastered the basic framework in previous classes.

Students see the rubric, and they ask clarifying questions about the assignment. This may be difficult or it may not occur at all, if no concrete rubric is given to students. The rubric prompts clarifying questions that rapidly turns into a quality class discussion. For example, a student may ask about the style of social media hashtags. Taking the question from the rubric, the teacher engaged in a detailed description about how hashtags are used in social media not just for searching but to communicate an idea to the reader in a clever, concise way. Students then ask more questions, and they suggest hashtags to see how the class—acting as a reader—would respond to the hashtag. Another discussion that occurred from the rubric was the discussion about types of blog posts. Students asked what are the required blog posts after seeing the rubric in class, which created a class discussion about blog types and how to write a list style post versus a narrative style post.

Students are also asked to review the rubric as they complete a blog peer review toward the end of the semester. When students participate in a blog peer review, the students are exposed yet again to the rubric as they peer grade their assigned classmate's blog. When students review their classmate's blog, the student internalizes their own performance on their blog using the rubric. When students see a clear expectation from the rubric, they are motivated to compare their blog to the rubric to ensure they have all sections of the assignment completed. Rubrics increase students' ability to see the entire assignment and students miss fewer assignment requirements.

Overall, the use of the business written communication rubric enables students to produce higher quality work because students are shown how the assignment should look from the beginning of the semester. Because the rubric is discussed weekly in class, students become familiar with the requirements for the blog and their learning increases, which makes the task of creating a blog easier. Finally, students use the rubric to evaluate their peers, which motivates them to improve their own blogs after comparing how they are doing with their fellow students.

Marketing Consumer Behavior Course

The consumer behavior course, required for all marketing students, employs a common textbook across all sections. The course includes an analysis of consumer spending and saving habits, product preferences, shopping behavior, leisure time patterns, and social change, exploring the influence of advertising, selling and fashion trends on consumption behavior.

Course objectives include establishing a basic understanding of the psychological, sociological, and economic processes and influences affecting consumer choice, to examine implications of these factors for marketing, to examine implications of these factors for consumer well-being, to gain experience and familiarity with research in consumer behavior, to improve ability to express knowledge and ideas appropriately in writing and through verbal presentations, and to improve the ability to use appropriate procedures, frameworks, models, and experience to gain knowledge, solve problems, and make appropriate decisions based on various informational sources.

The term paper assignment is a qualitative research paper performed individually by each student enrolled in the consumer behavior classes. The term paper project is a small-scale qualitative field study involving some aspect of high-involvement consumer behavior. It is a study about consumers, how they are motivated, and ultimately, how important it is for marketers to better understand their attitudes and their motivations for marketplace behaviors.

Students interview two or three respondents, and all field notes and journals are submitted before the term papers are due. Formal research findings presentations of the studies will be made to the class during the last 1-2 weeks of the semester. The term paper assignment rubric appears in Appendix D.

Rubric application and adaptation. This assignment and writing rubric have evolved in quantity and quality of details required over the past four semesters based on student feedback and faculty member observations. Thus, the learning has been two-way between the students and the instructor, affecting improvement and learning for each. The demonstration of professional written communications skills is required in each section of the semester term paper. The rubric is delineated by sections *Content, Organization and Style* addressing the application of additional course objectives and learning goals by section as follows:

Content: This rubric section identifies the nature and required attributes of the term paper's introduction. Students apply their knowledge of course content using demographic variables to describe their study's respondents. It also requires students to apply theory to their data through the analysis of respondents' motivations for behavior. Analytic and critical thinking skills are emphasized and demonstrated in the detailed analyses of respondent data. Students are required to integrate the findings of at least three peer reviewed published articles into their study, comparing their own findings with those of others through critical thinking skills.

Finally, students step back after a detailed analysis of their respondents' behaviors in the marketplace, and they address, "Why would marketers care and how could they benefit from this study's findings?" This step leads students toward viewing the bigger picture of research and how it can meaningfully contribute to the marketing discipline.

Organization: This section assesses the overall organization of the term paper, including the requires sub-headers of Introduction, Introduction of Informants, Theory and Findings, and Conclusion. The organization and connection of paragraphs and the requirement of page numbers are also assessed.

Style: This section provides an overview of the assignment requirements for APA formatting and the preparation for writing a scholarly article. In addition to focusing on

demonstrating effective communication skills, this section also addresses APA formatting requirements and the preparation for the reference page required for a scholarly article.

Outcomes. After completing the research term paper assignment, students have demonstrated and applied their knowledge of consumer behavior terms including the psychological, sociological, and economic processes and influences affecting consumer choice. Students also have reflected on the implications of these factors hold for marketing practitioners. Students have learned and demonstrated qualitative research protocol and the application of theory in data analysis. Written communication skills are emphasized heavily in this assignment, as well as, the demonstration of analytical skills and critical thinking.

Student comments after completing this assignment have emphasized the surprise of being able to accomplish and produce scientific consumer behavior research themselves, the fun and excitement experienced while performing their consumer studies, as well as, how generally fascinating the study of consumer motivations and behavior can be. Thus, while students tend to experience at least some anxiety at the beginning of the semester when they are told the scope of what they will be doing in the course, after the assignment has been accomplished, they frequently communicate how much they learned, and how proud they feel to have contributed knowledge to the field of marketing through their own work.

BENEFITS OF RUBRICS ACROSS STAKEHOLDERS—MEETING AACSB CRITERIA

Through the development and application of assignment rubrics across the organizational behavior and marketing disciplines within the authors' school of business, the implementation, applied measurement of student outcomes over several semesters, and the refinement of rubric instruments over time have evidenced many similar and shared benefits realized and discussed by previous authors. These are summarized in Appendix E.

Two major stakeholder groups, faculty and students, have been individually and/or collectively assisted toward the accomplishment of learning objectives and program goals through rubric use and application. Benefits specific to faculty have included time saved in grading; the dual use of rubrics for both grading and program assessment; the role of rubrics serving to develop and encourage faculty collaboration and unifying faculty through shared goals; the development of greater insight related to the integration of core concepts, course objectives and skills across curriculum; the creation of a shared understanding of desired outcomes and consistency of practice across course sections and departments; increased objectivity, reliability and validity in the measurement of learning goals and measures with the school mission; assistance to faculty in facilitating student placement; the identification of deficits in student knowledge and skills; the identification of deficits in courses and programs; and the usefulness of rubrics in monitoring student progress.

Using rubrics has benefited students specifically by serving to be formative in students' life-long learning; clarifying expectations, providing guidelines for performance, and identifying student learning deficits; indicating potential individual learning goals; and developing a

classroom environment where more focused student efforts are possible, thus resulting in the production of higher work quality and higher grade accomplishment.

Benefits of rubrics to both faculty and students have included the creation of the opportunity for open discussions for grading and learning throughout the semester; the development of greater insight related to integration of core concepts, course objectives and skills; assistance to faculty toward the goal of facilitating student placement; the identification of deficits in student knowledge and skills; the identification of deficits in courses and programs; the monitoring of student progress; and the reduced frequency of students questioning grades. Correspondingly, each of the benefits realized by both stakeholder groups have meaningfully assisted in the process of continuous improvement, as well as serving to assist the school in its goal toward meeting AACSB accreditation criteria.

CONCLUSIONS AND FUTURE DIRECTIONS

Together, results from the courses highlighted in this practice-based study showed that rubrics benefited both faculty and students. Faculty were given opportunities to assess written and oral communication skills using standardized, but adaptable, rubrics which reinforced what faculty were teaching and how it was perceived by students. The rubrics allowed the school of business to meet AoL standards while providing faculty with flexibility for adapting the rubric to specific assignments. Finally, faculty used the rubrics to establish consistency in assessing both disciplinary content and cross-cutting skills. From the student perspective, using rubrics resulted in higher quality work and grades. Also, students reported greater clarification of assignment expectations. These findings contribute to the existing literature showing that rubrics are a key component to effective teaching pedagogy. In additional to theoretical contributions, this study provides practical implications for business schools who may want to adopt standardized flexible rubrics to improve their AoL practices.

REFERENCES

- AACSB International Accreditation Coordinating Committee and AACSB International Accreditation Quality Committee. (2007). AACSB White Paper No. 3. Retrieved from https://naspaaaccreditation.files.wordpress.com/2014/04/aacsb.pdf
- Amantea, C. A. (2004). Using rubrics to create and evaluate student projects in a marketing course. *Journal of College Teaching & Learning*, 1(4), 23–f28.
- Andrade, H. L. & Du, Y. (2005). Student perspectives on rubric-referenced assessment. *Educational & Counseling Psychology Faculty Scholarship*, 10(3), 1–11.

Andrade, M. S., Workman, L., & Gardiner, P. G. (2020). Assurance of learning: Adaptations of standardized written and oral communication rubrics. Manuscript submitted for publication.

- Association of American Colleges and Universities. (n.d.). What is a liberal education? Retrieved from https://www.aacu.org/leap/what-is-a-liberal-education
- Association of American Colleges and Universities. (2011). *The LEAP vision for learning: Outcomes, practices, impact, and employers' views.* Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/leap_vision_summary.pdf

- Association of American Colleges and Universities. (2015). *The LEAP challenge: Education for a world of unscripted problems*. Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/LEAP/LEAP/ChallengeBrochure.pdf
- Association to Advance Collegiate Schools of Business (AACSB). (2013). 2013 Eligibility procedures and accreditation standards for business accreditation. Retrieved from https://www.aacsb.edu/-/media/aacsb/docs/accreditation/standards/2018-business-standards.ashx?la=en
- Attaway, A. N., Chandra, S., Dos Santos, B. L., Thatcher, M. E., & Wright, A. L. (2011). An approach to meeting AACSB assurance of learning standards in an IS core course. *Journal of Information Systems Education*, 22(4), 355–366.
- Bennett, M. M., Smart, K. L., & Kumar, A. (2017). Assurance of learning: Moving from a compliance to an improvement culture. American Journal of Business, 32(3–4), 152–170.
- Bolton, F. C. (2006). Rubrics and adult learners. Andragogy and Assessment, 18(3), 5-6.
- Brookhart, S. (2003). Developing measurement theory for classroom assessment purposes and users. *Educational Measurement: Issues and Practices*, 22(4) 5–12.
- Burton, K. J. (2006). Designing criterion-referenced assessment. Journal of Learning Design, 1(2), 73-82.
- Calma, A. (2013). Fixing holes where the rain gets in. Journal of International Education in Business, 6(1), 35–50.
- Chang, B. & Kang, H. (2016). Challenges facing group work online. *Distance Education*, 37:1, 73–88, doi: 10.1080/01587919.2016.1154781
 Donatha, K. & Tymann, P. (201). The development and use of scoring rubrics. SIGCSE '10 proceedings of
 - the 41st ACM technical symposium on computer science education. Retrieved from https://dl.acm.org/citation.cfm?id=1734263
- Garfolo, B. T., Kelpsh, E. P., Phelps, Y., & Kelpsh, L. (2016). The use of course embedded signature assignments and rubrics in programmatic assessment. *Academy of Business Journal*, 1(1), 8–20.
- Gibson, J. W. (2011). Measuring course competencies in A school of business: The use of standardized curriculum and rubrics. *American Journal of Business Education*, 4(8), 1–6.
- Hart Research Associates (2015, January). *Falling short? College learning and career success*. Washington, DC: Association of American Colleges and Universities. Retrieved from https://www.aacu.org/sites/default/files/files/LEAP/2015employerstudentsurvey.pdf
- Kelley, C., Tong, P, & Choi, B. J. (2010). A review of assessment of student learning programs at AACSB schools: A dean's perspective. *Journal of Education for Business*, 85, 299–306. doi: 10.1080/08832320903449519
- Kuisma, R. (1999). Criteria referenced marking of written assignments. *Assessment & Evaluation in Higher Education*, 24(1), 27–39.
- Martell, K. (2007). Assessing student learning: Are business schools making the grade? *Journal of Education for Business*, 82(4), 189–195.
- Mok, J. C. H., & Toh, A. A. L. (2015). Improving the ability of qualitative assessments to discriminate student achievement levels. *Journal of International Education in Business*, 8(1), 49–58. Retrieved from https://search-proquest-com.ezproxy.uvu.edu/docview/1675864576?accountid=14779
- Mora, J. J., & Ochoa, H. (2010). Rubrics as an evaluation tool in macroeconomics. *Economics, Management and Financial Markets*, 5(2), 237–249.
- Petropoulou, O., Vassilikopoulou, M., & Retails, S. (2011). Enriched assessment rubrics: A new medium for enabling teachers to easily assess student's performance when participating in complex interactive learning scenarios. *Operational Research*, *11*(2), 171–186.
- Scott, D. M. (2010). The new rules of marketing and PR. Hoboken, New Jersey: John Wiley & Sons.
- Smith, L. J. (2008). Grading written projects: What approaches do students find most
 - helpful? Journal of Education for Business, 83(6), 325–330.
- Spiller, L., & Marold, D. (2015). Enhancing student performance in collegiate marketing competitions: The ECHO judges' perspectives. *Journal of Advertising Education*, 19(2), 30–46.
- Stevens, D. D., & Levi, A. J. (2005). *Introduction to rubrics* (1st ed.). Sterling, VA: Stylus Publishing.
- Walvoord, B., & Anderson, V. J. (1998). *Effective grading: A tool for learning and assessment*. San Francisco: Jossey-Bass.

Wheeling, B. M., Miller, D. S., & Slocombe, T. E. (2015). Assessment at AACSB schools: A survey of deans. *Journal of Education for Business*, 90, 44–49. doi: 10.1080/08832323.2014.973824

Requirement	Weight	Excellent		Adequate		Marginal	
		+	-	+	-	+	-
Content							
Audience Appropriately Addressed							
Context Understood							
Purpose Achieved							
Logical, Analytical, Critical, and Creative							
Accurately Supported							
Correct, Considerate, and Complete							
Concise							
Graphics Included When Appropriate							
Organization							
Appropriate for Genre							
Headings Effective							
Information Easily Accessible							
Paragraphs Use Topic Sentences							
Sentences Use Specific, Concrete Words							
Transitions Create Coherence							
Style							
Uses Unbiased Language							
Creates an Appropriate Tone							
Uses Concise Language							
Draws the Reader into the Message							
Wording Does Not Draw Attention to Itself							
Has a Consistent Point of View and Mood							
Contains No Errors or Only Minor Errors in							
Punctuation, Grammar, Capitalization, Number							
Usage, Spelling, Other Mechanics							
Uses the Correct Format for the Genre							

APPENDIX A School of Business Writing Rubric

Content. Sufficient information	15 points / 100%	14 points / 93%	13.5 points / 86%	11.5 points / 76%
is provided about the company	Exemplary	Competent	Partly competent	Developing
and the problem.				
Content. Data collection and	15 points / 100%	14 points / 93%	13.5 points / 86%	11.5 points / 76%
analysis provide insights into	Exemplary	Competent	Partly competent	Developing
the problem.				
Content. Recommendations are	20 points / 100%	18 points / 90%	17 points / 85%	15 points / 75%
directly linked to the data	Exemplary	Competent	Partly competent	Developing
analysis.				
Content. Recommendations are	20 points / 100%	18 points / 90%	17 points / 85%	15 points / 75%
clearly based on theory; theory	Exemplary	Competent	Partly competent	Developing
is explained to provide				
understanding of why the				
recommendations will be				
effective.				
Organization. Paragraphs are	10 points / 100%	9 points / 90%	8 points / 80%	7.5 points / 75%
well-organized; ideas are	Exemplary	Competent	Partly competent	Developing
connected across sections;				
appropriate headings and				
transitions are used.				
Style. Design is professional;	10 points / 100%	9 points / 90%	8 points / 80%	7.5 points / 75%
use of spacing, layout, color,	Exemplary	Competent	Partly competent	Developing
graphics, and media contribute				
to the presentation of the				
information.				
Style. Ideas are clear and	10 points / 100%	9 points / 90%	8 points / 80%	7.5 points / 75%
writing is grammatically	Exemplary	Competent	Partly competent	Developing
correct.				

APPENDIX B Organizational Behavior Team Consulting Project Rubric

Content. The written content on the blog	10 points /	9 points /	8 points / 80%	7.5 points /
homepage provides information about the blog	100%	90%	Partly competent	75%
topic for the targeted blog reader.	Exemplary	Competent	• 1	Developing
<i>Content.</i> The student needs to write at least 7 posts (<i>5 pts each</i>) from your student blog content schedule. Remember to use the posting formats we discussed in class which include lists, sectional, narrative, and multi-media posts. Each post needs to be at least 500 words except for the HOW TO post. At least one of your posts needs to be a HOW TO video showing your readers how to do something. Please follow the format discussed in class for how to create a HOW TO video. The minimum length of the HOW TO video is 1 minute 30 seconds.	40 points / 100% Exemplary	37 points / 93% Competent	34.5.5 points / 86% Partly competent	30.5 points / 76% Developing
Content. The frequently asked question page	10 points /	9 points /	8 points / 80%	7.5 points /
highlights the most important questions your	100% E	90%	Partly competent	75%
blog reader may have with short, concise	Exemplary	Competent		Developing
<i>Organization.</i> The blog has four required pages which include, static homepage, blog roll, frequently asked questions, and contact us. The tab navigation and pages are well-organized; ideas are connected across tabs; appropriate, consistent branding appears on the pages of the blog.	10 points / 100% Exemplary	9 points / 90% Competent	8 points / 80% Partly competent	7.5 points / 75% Developing
Organization. The blog has a sidebar and header	10 points /	9 points /	8 points / 80%	7.5 points /
with the appropriate sections. The header needs	100% Exemplany	90% Competent	Partly competent	/5% Developing
have a search bar and links to social media	Exemplary	Competent		Developing
accounts.				
<i>Style</i> . Design of the blog is professional; use of	10 points /	9 points /	8 points / 80%	7.5 points /
spacing, layout, color, graphics, headers and	100%	90%	Partly competent	75%
media contribute to the presentation of the blog	Exemplary	Competent	_	Developing
content.				
Style. Ideas are clear and writing is	10 points /	9 points /	8 points / 80%	7.5 points /
grammatically correct. The blog uses	100%	90%	Partly competent	75%
appropriate hashtags and calls-to-action to	Exemplary	Competent		Developing
communicate with the blog reader.				

APPENDIX C Social Media Marketing Student Blog Rubric

<i>Content.</i> Details the activity to be covered and the author's interest in the activity in one brief paragraph. In another brief paragraph, describes all attributes of the informants (demographic and psychographic) that are relevant to the activity.	10 points / 100%	9 points / 93%	8 points / 86%	7.5 points / 75%
	Exemplary	Competent	Partly competent	Developing
<i>Content</i> . Makes use of at least 3 peer- reviewed journal articles for additional background. Ties theory/ information from all three articles to the quotations from the informants.	15 points / 100% Exemplary	13.5 points / 90% Competent	12.75 points / 85% Partly competent	11.25 points / 75% Developing
<i>Content.</i> Data analysis is clearly based on theories of motivation; theory is explained to provide understanding of why consumers behave. Under a sub-heading "Conclusion," offers a conclusion consistent with the theories and the informants' quotations. Ties conclusion back to CB theories applied (motivations) and to the Marketing industry.	30 points / 100% Exemplary	27 points / 90% Competent	25.5 points / 85% Partly competent	22.5 points / 75% Developing
<i>Organization.</i> Contains necessary sub-headings including: Introduction, Introduction to Informants, Theory and Findings, and Conclusion; page numbers; follows correct APA citations format, descriptors and details the subject of the paper. Paragraphs are well-organized; ideas are connected across sections.	25 points / 100% Exemplary	22.5 points / 90% Competent	20 points / 80% Partly competent	18.75 points / 75% Developing
<i>Style</i> . Is appropriate in tone and APA structure for a marketing journal; design is professional; use of spacing, layout, color, graphics, and media contribute to the presentation of the information.	10 points / 100%	9 points / 90%	8 points / 80%	7.5 points / 75%
	Exemplary	Competent	Partly competent	Developing
<i>Style.</i> Contains all articles used for the paper on a separate "References" page and employs correct APA formatting.	10 points / 100%	9 points / 90%	8 points / 80%	7.5 points / 75%
	Exemplary	Competent	Partly competent	Developing

APPENDIX D Consumer Behavior Rubric

APPENDIX E Rubric Benefits for Stakeholders

Stakeholders	Outcomes	Authors
Faculty	Save time grading; Dual purpose rubrics: Use	Donathan & Tymann
	for grading and program assessment; Create open	(2010); NILO (2009); Mora &
	discussions for grading and learning throughout the	Ochoa (2010); Petropoulou,
	semester; Serve to unify faculty; Develop greater	Vassilikopulou & Retails
	insight related to integration of core concepts, course	(2011); Garfolo, Kelpsh,
	objectives & skills across curriculum; Create shared	Phelps & Kelpsh (2016);
	understanding of desired outcomes & consistency of	Smith (2008); Rau (2009);
	practice across course sections and departments;	Bennett, Smart, & Kumar
	Measure learning more validly, reliably & objectively	(2017); Gibson (2011); Calma
	across course sections and departments; Encourage	(2013); Spiller & Marold
	alignment of learning goals & measures with school	(2015); Walvoord &
	mission; Helps the faculty in accomplishment of the	Anderson (1998); Andrade,
	goal of facilitating student placement; Identify deficits	Workman & Gardiner (2020)
	in student knowledge & skills; Identify deficits in	
	courses & programs; Monitor student progress;	
	Reduced frequency of students questioning grades;	
	High quality student projects and grades, improved	
	engaged learning teaching techniques, improved	
	communication with and between students, increased	
	open dialogue between faculty and students about	
	grading and course expectations, improved clarity in	
	establishing student course expectations and how to	
	succeed, improved demonstration of course learning	
	objectives, improved class structure and course	
	organization, improved strategy for consistently	
	improving the course materials, assignments and	
	teaching methods; improved overall learning through	
	reciprocity with students.	
Students	Create open discussions for grading and	Garfolo, Kelpsh,
	learning throughout the semester; Develop greater	Phelps & Kelpsh (2016);
	insight related to integration of core concepts, course	Smith (2008); Petropoulou,
	objectives; Help in preparation for marketplace;	Vassilikopulou & Retails
	Identify deficits in student knowledge & skills; Monitor	(2011); Rau (2009); Bennett,
	student progress; Formative in students' life-long	Smart, & Kumar (2017);
	learning; Clarify expectations, provide guidelines for	Gibson (2011); Calma (2013);
	performance, identify deficits; Indicate potential	Spiller & Marold (2015);
	individual learning goals; More focused student	Mora & Ochoa (2010);
	efforts, production of higher work quality, earning of	Brookhart (2003); Bolton

	higher grades; Reduced frequency of students	(2006); Smith (2008);
	questioning grades; High quality student projects and	Andrade & Du (2005);
	grades, increased understanding of course	Walvoord & Anderson
	expectations, increased motivation to engage, learn	(1998); Andrade, Workman &
	and succeed, increased speed of learning, increased	Gardiner (2020).
	focus on School learning goals, increased engagement	
	about writing skill development, increased awareness	
	of the importance of diversity within teams, increased	
	goal setting, increased critical and analytical thinking	
	skills; improved group collaboration and performance,	
	improved qualitative research protocol and	
	application of theory in data analysis, increased	
	learning beyond initial expectations, increased	
	excitement about learning, increased pride about	
	personal capabilities and market value.	
AACSB	Create shared understanding of desired	Donathan & Tymann
	outcomes & consistency of practice across course	(2010); NILO (2009); Mora &
	sections and departments: Serve to unify faculty;	Ochoa (2010); Petropoulou,
	Develops greater insight related to integration of core	Vassilikopulou & Retails
	concepts & skills across curriculum; Measure learning	(2011); Garfolo, Kelpsh,
	more validly, reliably & objectively across course	Phelps & Kelpsh (2016);
	sections and departments; Encourage alignment of	Smith (2008); Rau (2009);
	learning goals & measures with school mission;	Bennett, Smart, & Kumar
	Identify deficits in student knowledge & skills; Identify	(2017); Gibson (2011); Calma
	deficits in courses & programs; Monitor student	(2013); Mora & Ochoa
	progress; Insights into the degree to which learning	(2010); Brookhart (2003);
	outcomes are met; Informed tactics for AACSB loop	Bolton (2006); Spiller &
	closing: Contributes toward meeting AACSB criteria.	Marold (2015); Walvoord &
		Anderson (1998); Andrade,
		Workman & Gardiner (2020).

EXPLORING CONSUMERS' HABITUAL BEHAVIOR THROUGH A SMARTPHONE EMBARGO

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ABSTRACT

The heart of learning is experience. Whether it is the experience of discussions in the classroom, studying for an examination, working on a project with other students, or pursuing and reflecting on a task independently, the experience can be transformative and lead to new knowledge and insights. The National Day of Unplugging is an event held annually in March. It provided an opportunity for graduate students in a business creativity course to participate and confront, for what has become a habitual consumer behavior to many, an ongoing and near constant use of a smartphone. Participation in the Day experience afforded students the opportunity to gain perspective on their own consumer behavior of technology while providing information relevant to subsequent classroom discussions. The current article presents student reactions to the event and commentary on its use as a pedagogical tool for other instructors to potentially use in their classrooms for discussion and/or replication.

INTRODUCTION

During a summer course in Business Creativity for a small cohort of MBA students, one of the learning goals was to have a more in-depth discussion that touched on several consumer behavior-related themes. The AACSB accredited institution, a medium-sized university in the Southern part of the United States offers weeknight, weekend, and executive MBA programs to part-time students in the area.

More specifically, the goal was to explore the impact of increasingly dominating modern technology and the need for marketing practice and practitioners to adapt when confronting habitual behaviors. In order to better understand this, beyond a general discussion or surface-level observations, students needed to be challenged to make the topic more personal. Additionally, having all of the students share a common experience likely would facilitate a better discussion overall once the group was reassembled in the classroom. Given that one of the learning goals of the degree program overall and part of our assurance of learning for AACSB accreditation relates to "fostering reflective thinking," finding the right task was the key.

Approximately two decades ago general news reports documented the National Day of Unplugging. The project is an outgrowth of The Sabbath Manifesto, an adaption of the Jewish practice of reserving one day a week to unwind, unplug, relax, reflect, get outdoors, and connect with loved ones. Created by Reboot, a nonprofit Jewish community, the Day was originally established in 2003 for people of all or no faiths (Anonymous, 2020).

The intent behind the program was to challenge people to keep their electronic devices unplugged and unused for 24 hours for a global vacation from technology. It attempted to

highlight the value of disconnecting from digital devices to better connect (or reconnect with), loved ones and communities in real time (Reboot Website, 2020).

In addition to maintaining the website and supporting the day of unplugging from technology Reboot currently offers a free, cloth cell phone sleeping bag for those who want to focus on the smartphone as the focus of their unplugging experience.

BACKGROUND

Generally speaking, student do not possess much background information on the topic of tech addition or smartphone withdrawal beyond anecdotal incidents. Exploration of potential linkages of tech usage to other facets of addiction is not new (Drennan & James, 2005). Issues of self-esteem and social rewards motivations at the heart of other addictions and withdrawal difficulties have also been examined (Chen 2020). As the instructor I did not want to introduce the topic beforehand since it might impact the students' firsthand experiences. Afterward however, and in conjunction with discussion of their journal observations, several articles (e.g. Archer, 2017; Lang, 2017; Stibel, 2017) were introduced to give context and scope to the issue – particularly with respect to their undergraduate compatriots who have been involved with smartphone technology either for a longer period or who were introduced to it at a younger age.

The assignment is novel, even given the widespread introduction of the smartphone (as we now know it) some approximately thirteen years ago with the first Apple iPhone. As Steve Jobs himself noted at the iPhone's introduction in January 2007 at the San Francisco MacWorld conference there were devices called smartphones (e.g. Moto Q, Blackberry, Palm Treo, Nokia E62) on the market however they weren't very smart (Steve Jobs presentation, 2007). His announcement and presentation represents the availability of the first true smartphone as consumers now conceive it.

The novelty of the assignment stems from tapping into a habit that has had sufficient time to become significantly engrained into people's lives and of sufficient scope to impact how they perform a variety of tasks, both on a personal and a professional level. Unlike other technology, such as an electronic calculator or a laptop personal computer, the smartphone's handheld status and functionality with complementary technologies give rise to issues related to addiction (Kumar & Mondal, 2018 among others). As social media platforms' role in forming and maintaining social identity have been formalized (Dutot, 2020) the experience and reflection on the smartphones' role in peoples' lives is worth exploring. The task in question looks at students' ability to do without it as a basis for classroom discussion.

STUDENT TASK

Asking students to alter their behavior, in some instances drastically and even for a short time, can be difficult. Exhibit 1 presents the instructions students were provided to follow. An attempt was made to balance the constraints of asking people (working, part-time graduate students) to alter their behavior by not using their smartphone for a 24-hour period and the

potential emergency needs that might arise. The goal was introspection and reflection while not putting anyone's safety, job performance, or psychological comfort unnecessarily at risk.

Aside from the instruction sheet, each student was supplied with a cell phone sleeping bag, obtained through contact with Reboot at no charge for use in the classroom. They were asked to complete the task with a 24-hour window of their choosing before the next class meeting, approximately two weeks later.



RESULTS

The experience and reflection on the task is at the heart of fulfilling the stated learning objective of fostering reflective thinking. Salient experiences provide for more in-depth and richer points of discussion than mere pondering of a subject or considering something one has read. In this the task project allows for a better and more complete accomplishing of the learning objective.

The analysis of the data in this exploratory study was limited to a qualitative analysis of the respondent journals. Chronicling the most significant observations and reasons for deviations from protocol are presented in Exhibit 2. A search for common themes was noted and presented as part of Exhibit 3. The relatively small number of participants precluded a meaningful Word Cloud analysis.

Exhibit 2 RESPONDENT BEHAVIORS							
					Full		Interruption
Gender	Age	Start	End	Under	24 hrs	Over	in Experiment
Male	52	4:00 a.m. Friday	7:00 a.m. Friday	21 hrs.			Need to use camera to document work product
Male	39	6:00 p.m. Monday	6:00 p.m. Tuesday		Yes, but		2 minute lapse – forgot about embargo
Male	33	5:30 a.m. Tuesday	6:00 a.m. Wednesday		Yes	½ hr.	
Male	33	8:31 p.m. Saturday	10:05 p.m. Saturday	23 ½ hrs.			Self-admitted "addicted" to phone
Male	33	8:30 p.m. Friday	8:30 p.m. Saturday		Yes		
Male	31	9:46 p.m. Saturday	9:47 p.m. Sunday		Yes	1 min.	
Male	31	3:15 p.m. Saturday	9:45 p.m. Sunday		Yes	6 ½ hrs.	
Male	31	7:00 p.m. Saturday	7:00 p.m. Sunday		Yes		
Male	31	5:00 p.m Wednesday	5:00 p.m. Thursday		Yes		
Female	50	5:30 a.m. Friday	7:30 a.m. Saturday		Yes	2 hrs.	
Female	41	9:00 p.m. Thursday	6:00 p.m. Friday	3 hrs.	No		Family Issue
Female	37	10:00 p.m. Tuesday	10:30 p.m. Wednesday		Yes	½ hr.	
Female	36	8:55 p.m. Friday	8:55 p.m. Saturday		Yes		
Female	26	8:00 p.m. Saturday	8:00 p.m. Sunday		Yes		

Exhibit 3 SELECT STUDENT JOURNAL THEMES AND OUOTES				
Hesitation, trepidation, apprehension	Some of the most meaningful things came before the exercise actually began. As I started thinking about it I really began to feel very strongly that I didn't want to do it.			
Strategic planning as minimizing tactic	What day to pick, around 4 th of July holiday, choose weekend to avoid work issues, early in morning, late at night to take advantage of sleeping?			
Ingrained	Kept tapping my pocket to make sure it (the phone) was there.			
	I forgot about the project for two minutes, grabbed my wife's phone and began to look up a site. It was facinating to me that using cell phones has become so common that I could grab the phone and start surfing without realizing what I was doing; the reaction was almost involuntary.			
Realizations	I found that in certin moments I was more fully "in" than others.			
	I found myself engaging with my kids more. It wasn't just easier to find more time to spend time with family. It was also easier to find time to read.			
	Not having my device I noticed during lull times that in the past I reserved for text messages or social media statuses I found myself taking quick walks outside. It was a great mental break from the day. It inspired imagination and appreciation of the day as opposed to being pushed information relevent or not from a 4.5 inch display.			
Things learned	I really have thought about turning all my weekends into smartphone free weekends.			
	I discovered that if you aren't going to use your smartphone you have to plan more effectively. I had to communicte with my wife about our plans for the day and ensure we had a schedule worked out in advance. They are a convenience but we rely on them to "think" for us too often.			
	It is a great tool to deal with unforseen circumstances in your day.			
Suprises	At a social ocassion I noticed that just about everyone was using their phones – taking pictures, giving someone map directions, etc.			
	Going to sleep that night was very easy. Not having access to my smartphone allowed for a good night of rest.			
Misc.	My one true observation from the embargo is that I am thankful that God has afforded me the insight to realize smartphones and their limitless uses have their place and attractive qualities, but do not consume the majority of my day.			
	I texted my parents with the message that I was turning my phone off for 24 hours and if there is an emergency to call my wife. Within 60 seconds of powering my phone down my wife turns to me and says "your parents are wondering why you aren't using your phone."			

Toward the end of the day I felt I had acomplished so many things and had a productive day.

I named my smartphone Freida. I had to name my phone because my wife feels that Frida is the other woman in my life so providing her an identity seems appropriate.

When it comes to challenges or student concerns about being able to complete or even partially complete the task, this project enhances the potential for meaningful learning and reflection. It is specifically the possibility that students may not be able to accomplish this task to its fullest degree that opens the door for insights. As Exhibits 2 and 3 reflect, students had varying degrees of problems and issues, including an unconscious action to use their smartphone on one respondent's part. Because the grade for this assignment is not specifically linked to completing the 24-hour embargo itself but rather the quality of their completed journal documenting and reflecting on the experience, the varied nature of different students' experiences provides the raw material for the in-class discussion.

As noted in the instructions given to students, they were given the choice of when to schedule their 24-hour embargo. Both from the resulting journals submitted for review and grading and Exhibit 2 it was readily observed that students did employ one of several strategies for minimizing the negative impact of changing their behavior to complete the assignment.

Weekends were used for minimizing or eliminating complications related to limiting technology when in a work environment. Overnight strategies were also employed to take advantage of natural sleeping time when the need to consult their smartphone would be lessened.

Vacation time for one individual and the occurrence of a national holiday, Independence Day, for another explained why their chosen 24-hour embargo period occurred during the week. It also partially explains or supports the contention that for many they would have a difficult time giving up their technology and that it may have become habitual behavior.

CONCLUSIONS

The classroom discussions on consumer behavior, habitual behavior, and technology that followed the completion of this assignment were very productive. Students referred to their experience as well as to experiences of other people in their households who attempted to participate in the project. They drew on concepts from the after-project assigned readings, leading to a successful learning experience.

The learning goal of fostering reflective thinking is not the sole purview of marketing, or reserved to any one field of business or academic study. This project could be employed in any number of courses across the marketing curriculum – from consumer behavior to marketing research or from integrated marketing communications to marketing strategy. The personal nature and active learning aspects of the project also make it one ripe for replication in many a different classrooms. Future studies with a sufficiently larger subject pool and the collection of more comprehensive demographic and psychographic data will allow for more robust data analysis.

REFERENCES

Anonymous (2020). https://www.daysoftheyear.com/days/day-of-unplugging/.

- Archer, D. (2017). Smartphone addiction. *Psychology Today*, <u>https://www.psychologytoday.com/blog/reading-between-theheadlines/201307/</u>smartphone-addiction.
- Chi-Ying C. (2020). Smartphone addiction: Psychological and social factors predict the use and abuse of a social mobile application, *Information, Communication & Society*, 23:3, 454-467
- Drennan, J. & James, D. (2005). Exploring Addictive Consumption of Mobile Phone Technology, ANZMAC 2005 Conference: Electronic Marketing, 87-96
- Dutot, V. (2020). A social identity perspective of social media's impact on satisfaction with life, *Psychology & Marketing*; 37, 6 (June) 759-772.
- Kumar, M. & Mondal, A. (2018). A study on Internet addiction and its relation to psychopathology and self-esteem among college students, *Industrial Psychiatry Journal*, 27, 1 (January/June), 61-66.
- Lang, J.M. (2017). The distracted classroom: Transparency, autonomy, and pedagogy, *Chronicle of Higher Education*, (July), 30.

Reboot website. (2020). http://nationaldayofunplugging.com/about-us/.

- Steve Jobs iPhone 2007 Presentation at San Francisco MacWorld, <u>https://www.youtube.com/watch?v=v</u>N4U5FqrOdQ.
- Stibel, J. (2017). Why you're addicted to your phone ... and what to do about it, USA Today, (July 3) 3.

MISSION AMARILLO – A NON-PROFIT MARKETING PLAN CASE STUDY

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CASE DESCRIPTION

Primary subject matter for this case includes brand development and strategic attention to target markets. Secondary issues include the marketing plan components: executive summary, situation analysis, marketing strategy, objectives, implementation, and control. As this case pertains to a nonprofit organization, the stakeholders involved will include not only the intended beneficiaries of the nonprofit's attention, but its donors and volunteer supporters. Students will prepare the components of a marketing plan with attention to brand development, particularly with discussion of marketing tactics.

This case has a difficulty level of three-four (junior-senior level) and is designed to address learning objectives in an introductory marketing principles class. Assignments can be approached as small efforts addressing components of the larger marketing plan or as a term project to summarize all concepts covered during the entire term. For the latter, the case can be introduced in two to four class hours with an additional five to ten hours of outside preparation.

CASE SYNOPSIS

The marketing effort for nonprofit organizations is arguably more complicated than for traditional for-profit businesses. The set of stakeholders to be satisfied is larger with potentially conflicting expectations due to nonprofits' reliance on donated time and money. The nonprofit business sector now represents the third largest business category in the United States, and it continues to grow ("With Sector Growth," 2015). It is imperative, therefore, that marketing students be exposed to the requisite complexities of a strategic nonprofit marketing campaign.

Students will be presented with background information on Mission Amarillo, a nonprofit entity based in Amarillo, Texas that seeks to prepare young people for success in life. Jeff Parsons, Executive Director for Mission Amarillo, faces the daunting task of developing the Mission Amarillo brand in order to minister to the considerable need he sees with young adults in the Amarillo, Texas community.

BACKGROUND

Jeff Parsons, Founder and Executive Director for Mission Amarillo, has a passion for kids and young adults. Jeff wants young people to understand their worth and their potential, and he wants to equip them for success in the real world. Jeff is a pastor by trade, with more than 30 years of ministry experience. Mission Amarillo officially came into being in 2010 but has its roots in a Bible study ministry outreach program that Jeff worked with as part of this ministry in

the Texas Panhandle area. Since then, the organization has morphed into a collection of programs, three of which are mentoring outreach efforts.

The Mission Amarillo brand intends to change communities through relationships. These mentoring programs are based on long-term interaction, spanning a 14-24-month time period. While each program is unique, they share the same mission statement of love and service: "Loving our neighbor, Equipping for life."



Loving our neighbor, Equipping for life.

Due to the programs being relationship-based, they require volunteers willing to serve for an extended time-period. While Jeff appreciates that younger generations prefer to give of their time rather than money, the two-year commitment is a lot to ask. Consequently, they do not have many short-term volunteer opportunities; therefore, volunteers are scarce.

All their programs fall under the Mission Amarillo brand, but they each have their own logos and brands as well. This has complicated the marketing effort to build awareness and community support for the individual Mission Amarillo programs. The Amarillo community tends to associate the Mission Amarillo brand with its shoe program. The shoe program is an integral part of the organization, but the mentoring programs represent the core of the Mission Amarillo ministry. Jeff needs for Mission Amarillo to also be recognized for its three mentoring programs in order for real community impact to occur.

Mission Amarillo is a modest nonprofit and Jeff is the only full-time staff member. He has three strong, part-time employees that help keep the organization running. With Mission Amarillo being a smaller nonprofit in the Amarillo area, money is an issue. Jeff does not currently have a significant level of sustainable funding. Although the organization does have individuals and businesses that donate money on a monthly basis, these are not always enough to fund their programs. Therefore, Mission Amarillo has two annual fundraising events. FamFest takes place the first Saturday in May each year. Local bands provide entertainment at an area park. This is the larger of the two fundraisers and is a vital part of their annual budget. The Mission Amarillo Banquet and Auction is the organization's second fundraiser and has been held every year in October. Due to community feedback, this function is not going to be held in 2019, and it is no longer being planned for future years. Despite the fact that these two fundraisers have been successful and have brought money into the organization, they are not considerable sources of funding.

Amarillo is a conservative city with almost 200,000 residents. There are approximately 1,500 nonprofits currently operating in the area (TaxExemptWorld, 2019). In a town saturated with so many nonprofits, competition is fierce for the money that only 20% of the population can afford to donate. In addition, it is sometimes difficult for Mission Amarillo to compete for available donations because its programs are considered controversial by some in this extremely religious community. Furthermore, Mission Amarillo's programs are likely to have a high failure rate, making it a tough sell to potential donors.

The current Mission Amarillo board of directors is very "green". Jeff has had trouble recruiting experienced board members with the background and ability to fundraise, plan events,

or otherwise contribute to the organization in a meaningful way. That said, he recently acquired a board member who has been instrumental in building a web presence for Mission Amarillo and a social media platform for the organization. Jeff hopes to see significant increases in public awareness as a result.

MISSION AMARILLO PROGRAMS

The Shoe Closet program was established in 2010 and provides shoes to kids in need within the Amarillo area schools. Since April 2010, more than 9,200 pairs of shoes have been gifted. Typically, the program distributes 300-400 pairs of shoes each year. Prompted by referrals from school counselors, Jeff hand delivers the shoes to the schools. He relies on the direction of school counselors to determine which children receive shoes. Mission Amarillo does not screen or have the ability to screen recipients. The Shoe Closet is Mission Amarillo's only self-sustaining program, based on community shoe and monetary donations. Jeff prefers to receive donations in the



form of shoes, as monetary donations tend to be less than the value of an actual pair.

Mission Amarillo has three mentoring programs with two directors on staff to oversee them: ParentChild+, Driven, and Be-Loved. The recipients of these mentoring programs lack a strong support system, and a lack of commitment has been modeled for them their entire lives. As a consequence, they are ill-prepared for life success, and they are at-risk for perpetuating dysfunctional behavior with their children. Jeff seeks to interrupt this cycle. Young people and youth parents need to be in relationships with mentors over a long enough period of time to learn a new set of behaviors and, more importantly, to learn that they are worthy of having a good life. The long-term commitment of volunteers and mentors throughout the community is absolutely key to effecting the systemic change that Jeff desires.

ParentChild+ was adopted by Mission Amarillo in 2015. This national program works with families living in poverty who have children in the 2-4 age bracket. The ParentChild+



program was created because children living in low-income households are at-risk for falling behind academically compared to children in higher-income families. The ParentChild+ program is funded mostly by grants with paid mentors who make a 2-year commitment, making this an expensive program to support. The program receives referrals for clients, with over half of them being refugees. A mentor visits the client's home 2 times a week for 30 minutes. Every other visit, the mentor takes a new book and educational toy. This enables the mentor to model how the family can read and play together. In addition, the mentor teaches parents how to properly

discipline their children. In 2018, the ParentChild+ program had 29 families. This year, there are 17 families in the program, with a waitlist of other families in need.

Driven, founded in March 2015, is a 14-month mentoring program for men ages 18-25 who are aging out of the foster care system. The Driven program hopes to incentivize these young men with a car in exchange for their participation in the program. The number of foster children in Potter County, Texas, has



seen a gradual increase from 241 in 2010 to 359 in 2015, and approximately 22% of these kids are in the 14-17 age bracket (Kids Count, 2019; Pathways, 2019). Young adults aging out of the foster care system are much more likely to experience homelessness, unemployment, substance abuse and generally poor health (Baugh, 2008).

Jeff spearheads this program, which requires the male participants to attend 1-2 mentoring sessions per week. During these sessions, mentors teach that men must "stick and stay" with all aspects of life. This means the men should not leave their family, job, etc. when things get tough; they must stay and work their way through the problems. Driven's goal is to insert positive male role models from the community into the clients' lives. The program provides personal finance education and job training. Driven participants are required to make a \$300-\$900 down payment based upon their income before receiving the car, and the car is titled to the participant midway through the program. Driven had a 50% success rate prior to 2019, but success in the current year has declined.

In 2016, the **Be-Loved** mentoring program was created for teenage girls facing an unexpected Amarillo minority and low-income pregnancy. communities have seen an increase in teenage pregnancy (United Way, 2019). This is concerning because teenage mothers are much more likely to live in poverty and to be abused. They are also less likely to provide infants with quality early life experiences and are much more likely to require public assistance services (National Research Council, 1987). Be-Loved receives clients from school referrals. The curriculum has 50-60 lessons that include infant care, budgeting, and career planning. Clients meet voluntarily with their mentor twice a month. Goals



for the teen moms include finishing high school, continuing their education, creating a positive vision for their future, living independently, and being secure enough with themselves to have

healthy relationships in their lives. Be-Loved is operating at capacity and has a waitlist of teen moms looking for assistance.

JEFF'S OBJECTIVES FOR MISSION AMARILLO

Jeff must inspire others to promote the Mission Amarillo causes; he cannot do it singlehandedly. Jeff summarizes Mission Amarillo's priorities as follows:

- Mission Amarillo currently has 35 individual monthly donors, considered the most sustainable source of funding. Without monthly donors, Mission Amarillo must rely on grant funding, which has proven to provide only a short-term solution.
- Mission Amarillo needs volunteers willing to make a two-year commitment. Unfortunately, benefactors giving of their time generally prefer shorter-term volunteer opportunities.
- Current board is very green. Jeff has not been able to recruit experienced board members who know how to fundraise, plan events, and otherwise contribute to the organization. This leaves Jeff in the unfortunate position of bearing the bulk of the workload for all of the Mission Amarillo programs.
- Jeff believes that building awareness for the Mission Amarillo brand is key. If he can only make the Amarillo community aware of the unique and effective Mission Amarillo relationship-driven approach, then more people will desire to volunteer. Increased awareness should inspire more people to volunteer resulting in more people being helped. This success will encourage others to participate as mentors and board members and will prompt more people to donate monthly.

Jeff met with a group of business professors from a nearby university, hoping they could provide perspective. Disappointingly, they had no immediate answers, but insisted Mission Amarillo needed a marketing plan. Jeff wasn't convinced it would help, but he agreed to give it a try.

WHAT IS A BRAND?

In simple terms, a brand is the identity that is built for a product. Tangible product characteristics such as a trademark, product features or product name factor into brand development, but so do intangible qualities including consumers' thoughts and feelings about a product. Brands allow consumers to categorize products, options, and ideas. The human brain functions by compartmentalizing all sensory inputs to the body. It is hard-wired to organize, generalize, stereotype and label things, groups and ideas in order to made sense of the world. Thus, brands help consumers to distinguish between the vast array of product options available to them (Kendall 2015).

Over time, consumers come to associate brands with a level of quality, credibility and satisfaction. Thus, brands develop a reputation in the minds of consumers (Choudhury 2018). The identity that is built for a product – it's brand – is important because a strong brand equates to consumer preference for a brand. This brand loyalty translates into repeat purchases, higher profitability and greater financial value (Keller, 1993; Farquhar, 1989, Aaker, 1991). For

nonprofit organizations, a strong brand may be associated with increased monetary contributions and higher numbers of volunteers (Venable et al. 2005, Lee and Bourne, 2017).

The financial value associated with a brand is referred to as brand equity. There appear to be several drivers of brand equity: 1) **brand image**, 2) **brand awareness**, and 3) **brand personality**. Brand image can be defined as a consumer's overall mental image for a particular brand. Brand image is shaped by consumers' perceptions of a product's attributes and benefits (Dobni and Zinkhan 1990, Keller 1993, Liu et al. 2014) and also by characteristics of the organization such as size, financial resources, and position in the market (Faircloth, 2005). Brand awareness is a measure of consumer familiarity with a brand and the likeliness that a brand will be recalled from memory (Holden 1992, Faircloth 2005). Brand Personality is a more recent addition to the brand equity conversation and reflects consumers' willingness to attach human personality traits to a brand (Aaker 1997; Faircloth 2005). For example, consumers associate the traits "cool and all-American" with Coca-Cola, the traits "young, exciting, and hip" with Pepsi, and the traits "unconventional, unique and fun" with Dr. Pepper (Aaker, 1997). Additional research shows that consumers can also easily ascribe personality traits to nonprofit organization. For example, one comprehensive study shows that consumers think of PBS as "sophisticated", March of Dimes as "nurturing" and Greenpeace as "rugged" (Venable et al. 2005).

Marketers have long known that consumers buy products not only for what they do but for what they represent. Consumers tend to prefer products with a brand personality that matches to their own actual or ideal self. Thus, brand personality allows consumers to choose products that reflect their own self-image (Sargeant et al., 2008, Klink and Athaide, 2011). Brand personality may be especially important for nonprofits as it is thought to foster relationship building, which impacts nonprofits' ability to attract volunteer and donor supporters (Venable et al., 2003, Faircloth, 2005).

The marketing objective is to shape consumer perception of a brand in such a manner that brand equity is increased, thus delivering the benefits enjoyed by a strong brand, such as brand loyalty, price premiums, and repeat purchase behavior (Keller, 2003; Faircloth, 2005).

BRAND DEVELOPMENT

Brand equity requires consumer loyalty to a brand, which can only be developed when there is an emotional connection between consumers and the brand. Consumers are more likely to develop that bond when the marketing effort creates the opportunity for consumers to have an emotional experience with the brand (Choudhury, 2018). When an experience is personal for consumers, relating to something they are passionate about, then it is meaningful and memorable because it taps into the human senses and becomes an experience that they feel (Pilkington, 2015).

A first step to creating a meaningful brand experience for consumers is to make them aware of the brand. Keller (2003) argued that every encounter with a brand has the potential to change a consumer's knowledge and perception of the brand. The objective for marketers, therefore, is to employ marketing tactics that will foster brand encounters that will be perceived positively. Intentional communication and interaction with consumers are required to shape the brand image perceived as well as to create brand awareness. Marketers will very often associate the brand with people, places, objects and/or other brands as part of a marketing message. In order for the message to be received positively and to, therefore, positively impact consumers' impression of the brand, marketers need to know what consumers will consider in a positive light and what the effect of linking the brand to other entities is likely to be (Keller, 2003).

Consumers select products based on their ability to understand the characteristics offered by different purchase options and, thus, it is critical that consumers be able to distinguish one brand from other available brands. For tangible products, consumers will compare product alternatives on such characteristics as product quality, durability, style and discernable product features (Keller, 2003). For service and nonprofit product offerings, the decision is more likely to depend on experiential qualities (Sargeant et.al, 2008).

All nonprofit charities tend to be viewed as benevolent by default with no connection to any marketing efforts on the part of the organization. Thus, it is largely ineffective to promote a charitable organization with benevolent descriptors like helpful, reputable, supportive, or sympathetic. Consumers assume these qualities for charitable nonprofits unless given reason to believe differently. Rather, consumers differentiate nonprofit charities based on how ambitious and bold they are, and on the perceived emotional experience likely to be delivered. Consumers prefer to associate with nonprofit charities that can be described as exciting, fun, heroic, innovative, inspiring, and/or modern. One study categorized these qualities as measures of a charity's "Voice" and "Emotional Engagement," respectively. Taken together, this study suggests that nonprofit charities should focus on Voice and Emotional Engagement qualities to differentiate themselves from other charities, emphasizing how they differ from other nonprofits (Sargeant et.al 2008).

The vehicle available to marketers to develop a brand is the marketing mix, which is the set of tactics used by marketers to appeal to a target market and to persuade them to choose a particular brand. The tactics discussion is a central element of a marketing strategy, typically presented as part of a larger marketing plan.

THE MARKETING PLAN

A marketing plan is a written document whose purpose is to identify concrete marketing objectives and a plan to achieve them (Chernev, 2018). The process is unique to every company because the resources and goals of each company are different (Westwood, 2019). The plan must present a persuasive argument for stakeholders, internal and external, to endorse the goals and tactics presented in the plan. More specifically, the plan must satisfy senior management, who will ultimately endorse the funding of a marketing plan (Chernev, 2018).

Traditionally, marketing plans have been considered an important exercise for the forprofit business sector, which is very concerned with generating revenue and profit. It is a more recent phenomenon that the nonprofit business sector has come to appreciate the value of a marketing plan. For a non-profit organization, funding generally comes from community benefactors and volunteers, making the role of informing and persuading stakeholders especially vital. For all business sectors, but perhaps especially for the non-profit sector, it is critical to understand the needs of stakeholders, to engage the targeted audience(s), and to develop relationships with those an organization intends to serve (Ironpaper, 2017; Sooy, 2017; Dib, 2018; Network for Good, n.d.).

There are six major sections to a marketing plan:

- 1. Executive Summary
- 2. Situation Analysis
- 3. Objectives
- 4. Marketing Strategy
- 5. Implementation
- 6. Control

1. Executive Summary

The Executive Summary provides a snapshot of the marketing goal and the proposed tactics for obtaining the goal. This plan section needs to present the key points of the marketing plan. It should make clear the benefit(s) of the plan and entice readers to understand plan details. An effective Executive Summary need be no longer than several paragraphs. It should not present the details in a marketing plan.

2. Situation Analysis

There are two components of an Situation Analysis which factor into a successful marketing plan:

- Discussion of the **company** its values, core competencies, history and resources. Each of these will contribute to its willingness and abilities to carry out a marketing effort, and any plan presented should be consistent with the company's identity.
- Discussion of the **market** the nature and character qualities of the market, observable trends, and key external environmental factors that must be considered.

Thus, the Situation Analysis involves some *internal* research to clarify the activities, strengths, weaknesses and key resources of the company, AND some *external* research to understand the trends, competitors, needs, and opportunities driving the market.

The Situation Analysis discussion is nicely summarized in a SWOT Analysis, which itemizes Strengths (that a company brings to a marketing effort), Weaknesses (company weaknesses that may hinder success), Opportunities (market conditions that a company may choose to capitalize on or pursue, and Threats (market conditions that present a danger to a company's marketing efforts) (Chernev, 2018). A SWOT Analysis summarizes the key points of the Situation Analysis, often in bullet form, to present a concise snapshot of the internal and external research completed, and it informs the Marketing Strategies plan section (Westwood, 2019).

3. **Objective**(s)

This plan section should make clear the long-term outcome(s) to be achieved, as well as shorter-term objectives, which offer less daunting interim steppingstones. Objectives for companies in the for-profit business sector typically revolve around sales, profitability and/or market share goals (Westwood, 2019). For nonprofit companies, objectives may be more diverse, involving a variety of stakeholder categories, and they are not generally aligned with generating a profit. For example, nonprofits may be concerned with the number of volunteers they need

and/or with monetary donations as much as they are concerned with the number of clienteles served (Ironpaper, 2017; Sooy, 2017; Network for Good, n.d.).

The Objective(s) discussion should concisely identify the metrics against which plan performance can be evaluated and a time frame for performance to be tracked, considering both:

- a. qualitative objectives and
- **b.** quantitative objectives.

Qualitative objectives are not necessarily measured but are, nonetheless, important. Examples might relate to capitalizing on a window of opportunity, protecting a competitive position or establishing a market presence. Qualitative objectives also apply to goals that are difficult to measure such as customer opinions or feelings about a product or company.

Quantitative objectives need to be presented in a format against which Mission Amarillo can measure its performance. To state, for example, that Mission Amarillo intends to increase donations by 10% per year does not provide enough direction to establish firm goals. One needs to know what the 10% increase will be multiplied against in make clear the monetary goal that needs to be achieved.

Marketing plan objectives should be articulated with the SMART guidelines in mind:

- Specific avoiding ambiguity and providing clear direction;
- Measurable expressed in quantifiable terms that may be tracked;
- Achievable within the scope of the company's resources and abilities to achieve and inline with the company's mission;
- **R**ealistic consistent with the realities operating in the market and relevant to market sectors;
- Timebound presented with timing milestones to be achieved.

Objectives need to be based on market realities, both with respect to market potential and to the capabilities of the organization. Thus, company and market research compiled for the Situation Analysis should be leveraged to articulate objectives that embody the SMART guidelines.

Additionally, it is useful to include long-term objectives (with a 3-5-year time horizon, for example) that are broken down into shorter-term goals with less daunting steppingstone time increments (Westwood, 2019).

Objective(s) plan sections are often augmented with tables and/or graphs to better illustrate milestones and timing.

4. Marketing Strategy

The Strategy plan section has several components:

- a discussion of the **Target Market**.
- a statement of the Value Proposition.
- a discussion of the **Tactics** to be employed.

The **Target Market** conversation should identify the target customer(s) and important collaborators or stakeholders for success. In crafting the marketing plan strategy, it is important to home in on the group(s) or audiences(s) that are most important for achieving the plan objectives (Chernev, 2018).

This section of the marketing plan should also articulate the characteristics and needs of the target audience(s) as these qualities will inform the Value Proposition and the Tactics to be employed in pursuing the identified market(s).

The **Value Proposition** should make clear what the company has to offer that will be of value to target customers and relevant stakeholders. There are three categories of value propositions to be considered, depending on type of target market to be pursued:

- for the **customer** "How does my company offering represent the best value compared to competitive offerings?"
- for collaborators "How does my company offering represent the most gratifying opportunity compared to competing opportunities?"
- for my **company** "How does what we are offering represent the best choice for satisfying company goals compared to other options we could offer?"

For example, if the target market represents a customer group, then the value proposition should be stated with respect to the customer perspective. If the target market is a group of potential volunteers for a nonprofit organization, then the value proposition should be from the perspective of a collaborator group. A company initiative considering a company-internal target audience should present a value proposition that is from the company perspective.

A clear value proposition clarifies the product positioning strategy, informing the brand image to be developed and the company's unique value or differentiation. A Value Proposition could be phrased thus: "*Our company/nonprofit is the only* <u>_____</u> *that* <u>____</u>." (Sooy, 2017; Network for Good, n.d.).

The **Tactics** plan section is a discussion of the marketing mix elements to be leveraged in order to achieve the marketing goal(s) - product, price, promotion, and distribution. Each of these elements can be considered a strategic approach to pursuing the identified target market(s).

Regarding **product** strategy, the selection of the brand name is potentially significant depending on the brand image sought. It is important to keep in mind that the promotion strategy will seek to create meaningful associations with the brand name and, thus, the brand name should be chosen to allow for that (Chrysochou, 2010). Of course, the physical features of the product are also critical. Care should be taken to design a product that will provide the functionality needed by the target market. This will become crucial for effective communication of the product benefits (Chrysochou, 2010).

Regarding **pricing** strategy, the price established for a product may be an important way to communicate a measure of prestige, quality, and desirability. Care should be taken to establish a product price that is consistent with the values of the target market, product demand, organizational values and objectives, production costs, competitor pricing for similar products, and the brand image desired for the product. (Cant et al. 2006)

The **promotion** strategy is pivotal in brand development since this tactical element is the vehicle by which marketers create brand awareness and offer consumers a connection to the brand that operates an emotional level (Choudhury, 2018). There are many promotional tools to assist in this regard including strategic advertising and package design, effective use of spokespeople and other public relations tools, effective use of expert opinion and scientific data to substantiate product benefits, co-branding which leverages the brand awareness and image of multiple entities, digital promotion that fosters experiential engagement for consumers, and

effective facilitation and management of the public discourse related to promotion efforts. Promotion tactics need to be sensitive to public opinion and values in order to generate public discourse that is supportive of the brand (Chrysochou, 2010, Choudhury, 2018). Advertising is especially importance for building brand awareness. Public relations, on the other hand, is better suited to reinforcing or reshaping brand image in the minds of consumers. (Hilton 2006)

As with the other marketing mix elements, the **distribution** strategy should be consistent with the brand image to be developed and the needs and values of the target market. One distribution option that has gained some traction in recent years is to offer a product in conjunction with a partner company. For example, for-profit companies may partner with a nonprofit company to serve a societal need. To provide a service product in this way effectively leverages the distribution channels of both companies (Hoeffler and Keller, 2002).

5. Implementation

The Implementation plan section extends the Tactics conversation from the Marketing Strategy discussion into much more detail, thereby translating the strategy into an actionable step-by-step list of tasks to be completed. This effort requires attention to infrastructure, staffing, resources, product offering, and deployment. In this plan section, each action item needs to be assigned to a person/job role or group of people who will be held responsible for completing the task in the specified amount of time (Chernev, 2019; Network for Good, n.d.).

6. Control

A critical aspect of persuading stakeholders of the attractiveness and efficacy of a marketing plan is assuring these audiences that plan performance will be monitored for success. This is the discussion to be had in the Control section of a marketing plan.

The primary purposes for this plan section are to 1) establish how progress toward the plan objectives will be measured and 2) establish how gaps in performance will be dealt with. As with the Implementation section, establishing accountability is important. Thus, this section should include:

- the performance standards that will be measured to define plan success or failure;
- the person or people responsible for collecting the data to be tracked;
- the timing for which the data will be collected and reviewed;
- a plan for putting the company back on-track to achieving its goals if goal progress does not meet expectations. (Chernev, 2019; Network for Good, n.d.)

JEFF'S PLAN OF ATTACK

Mission Amarillo has four separate programs with four different target audiences and agendas. However, they are connected by the common objective to equip Amarillo youth for life success. Jeff believes strongly that success for all the programs depends on his ability to communicate the Mission Amarillo quest. Everything hinges on building brand awareness. Somehow, he needs to create a unique brand for the individual programs and connect them back to the Mission Amarillo name.

Jeff decides to consider each of the programs separately, reasoning that the marketing plan for each will need to be as individual as the programs, but where to start... He opens the Mission Amarillo website and browses through the program pages. For him, the images on his

computer screen represent precious lives. The responsibility weighs heavy on him to shepherd these young people, to make it possible for them to have a good life.

Success for these youth won't be achieved simply by caring about them, though. Jeff understands he will need a strategic approach to build brand equity for each of his programs and for Mission Amarillo as a whole. Perhaps the programs need a new brand image. Perhaps Mission Amarillo should partner with another area nonprofit or with an investor who can fund Mission Amarillo initiatives. Maybe Mission Amarillo needs to change the way its programs operate. Maybe the programs need to market a product to increase awareness and to help fund mission objectives. Maybe Mission Amarillo is trying to do too much...

Outside his office, Jeff's team is gathering for their weekly staff meeting. Jeff collects his notes and walks to join the group. "Guys," he begins, "I need your help. We need to set some new goals for our programs. Before we can do that, though, we're going to need some information."

REFERENCES

- Aaker, David A. (1991), *Managing Brand Equity*, New York, NY: The Free Press. (1992), "Managing-The Most Important Asset: Brand Equity," *Planning Review*, (September/October), 56-58.
- Aaker, J. L. (1997). Dimensions of Brand Personality. Journal of Marketing Research, 34(3), 347-356.
- Baugh, E. J. (2008). A Population at Risk: Youth "Aging Out" of the Foster Care System and Implications for Extension. Journal of Extension (46,4).
- Cant, Michael Colin, Wiid, Jan, & Sephapo, Catherine Mpolokeng. (2016). Key Factors Influencing Pricing Strategies For Small Business Enterprises (SMEs): Are They Important? Journal of Applied Business Research (JABR), 32(6), 1737.
- Chernev, A. C. (2018). The Marketing Plan Handbook. USA: Cerebellum Press.
- Choudhury, R. G. (2018). Influence of Marketing Mix Decisions on Emotional Branding and Its Effect on Customer Appeal. In R. Garg, R. Chhikara & T.K. Panda (Eds.), *Driving Customer Appeal Through the Use of Emotional Branding*. (1st ed., pp. 806-823). IGI Global.
- Chrysochou, P. (2010). Food health branding: The role of marketing mix elements and public discourse in conveying a healthy brand image. Journal of Marketing Communications: Marketing Communications in the Food Sector, 16(1-2), 69-85.
- Dib, A. (2018). The 1-Page Marketing Plan: Get New Customers, Make More Money, and Stand Out from the Crowd. Miami, FL: Successwise.
- Dobni, Dawn and George M. Zinkhan (1990), "In Search of Brand Image: A Foundation Analysis," in *Advances in Consumer Research*, Vol. 17, Marvin E. Goldberg, Gerald Gorn and Richard W. Pollay, eds. Provo, UT: Association for Consumer Research, 110-119.
- Drumwright, Minette (1996), "Company Advertising with a Social Dimension: the Role of Noneconomic Criteria," *Journal of Marketing*, 60 (October), 71–87.
- Drumwright, Minette and Patrick E. Murphy (2001), "Corporate Societal Marketing," in *Handbook of Marketing and Society*, Paul N. Bloom and Gregory T. Gundlach, eds. Thousand Oaks, CA: Sage Publications, 162–83.
- Faircloth, J. B. (2005). Factors Influencing Nonprofit Resource Provider Support Decisions: Applying the Brand Equity Concept to Nonprofits. Journal of Marketing Theory and Practice, 13(3), 1-15.
- Farquhar, Peter (1989), "Managing Brand Equity," Marketing Research, (September), 24-33. File, Karen Mary and Russ Alan Prince (1998), "Cause Related Marketing and Corporate Philanthropy in the Privately Held Enterprise," Journal of Business Ethics, 17, 1529–39.
- Gonzalez, Claudia, & Bogen, Jeremy. (2013). The brand that gave birth to a movement: The Born HIV Free campaign. Journal of Brand Management, 20(3), 232-240.
- Hilton, J. (2006). Integrating the message: Using the right combination of tools in your marketing toolbox will determine the success of your campaign. Branding guru Jeff Hilton discusses finding the right mix in this last of a four-part series. Functional Foods and Neutraceuticals, 24.

- Hoeffler, Steve & Keller, Kevin Lane. (2002). Building Brand Equity through Corporate Societal Marketing. Journal of Public Policy & Marketing, 21(1), 78-89.
- Holden, Stephen J. S. (1992), *Brand Equity Through Brand Awareness: Measuring and Managing Brand Retrieval*, Ph.D. Dissertation, University of Florida.
- Ironpaper. (2017). How to Create a Successful Nonprofit Marketing Plan (In 8 Steps). Retrieved from https://www.ironpaper.com/webintel/articles/nonprofit-marketing-plan/
- Keller, K. (2003). Brand Synthesis: The Multidimensionality of Brand Knowledge. Journal of Consumer Research, 29(4), 595-600.
- Keller, Kevin Lane (1993), "Conceptualizing, Measuring, and Managing Customer-Based Brand Equity," *Journal of Marketing*, 57 (January), 1-22.
- Kendall, N. (2015). What is a brand?: New thinking from the next generation of agency leaders. Kogan Page.
- Kids Count Data Center. (2019). Children in Foster Care (0-17) in Texas. Retrieved from <u>https://datacenter.kidscount.org/data/tables/3061-children-in-foster-care-</u>017#detailed/5/6702/false/573.869.36.868.867.133.38.35.18.17/any/8263.8264
- Klink, R. R. and Athaide, G.A. (2011). Creating brand personality with brand names. *Marketing Letters*, 2012-03-01, 23(1), 109-117.
- Lee, Zoe, & Bourne, Humphrey. (2017). Managing Dual Identities in Nonprofit Rebranding: An Exploratory Study. Nonprofit and Voluntary Sector Quarterly, 46(4), 794-816.
- Lichtenstein, Donald R., Minette E. Drumwright, and Bridgette M. Braig (2000), "Perceptions of Corporate Giving on Customer–Corporation Identification: Beneficial Effects for Customer, Corporation, and Nonprofit," working paper, College of Business Administration, University of Colorado, Boulder.
- Liu, Gordon, Eng, Teck-Yong, & Sekhon, Yasmin Kaur. (2014). Managing Branding and Legitimacy. Nonprofit and Voluntary Sector Quarterly, 43(4), 629-651.
- Malhotra, Naresh K. (1981), "A Scale to Measure SelfConcepts, Person Concepts, and Product Concepts," *Journal of Marketing Research*, 18 (November), 456-464.
- Meyer, Harvey (1999), "When the Cause Is Just," Journal of Business Strategy, 20 (November/December), 27-31.
- National Research Council (US) Panel on Adolescent Pregnancy and Childbearing. (1987). Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing, Volume II: Working Papers and Statistical Appendices. Hofferth SL, Hayes CD, editors. Washington (DC): <u>National Academies Press (US)</u>.
- Network for Good. (n.d.). 7 Steps to Creating Your Best Nonprofit Marketing Plan Ever. Retrieved from <u>http://www.fundraising123.org/files/training/7%20Steps%20to%20Creating%</u> 20Your%20Best%20Nonprofit%20Marketing%20Plan%20Ever.pdf
- Pathways Youth and Family Services. (2019). Foster Care Statistics. Retrieved from http://www.pathway.org/programs/foster-care/statistics/
- Pilkington, E. (2015). Put amazing brand experiences at the center of your strategy for a lasting impression. Marketing Week.
- Rossiter, J., & Bellman, S. (2012). Emotional branding pays off. Journal of Advertising Research, 52(3), 291–296.
- Sargeant, Adrian, Ford, John B, & Hudson, Jane. (2008). Charity Brand Personality: The Relationship With Giving Behavior. Nonprofit and Voluntary Sector Quarterly, 37(3), 468-491.
- Satterfield, M. (2014). The One Week Marketing Plan: The Set It & Forget It Approach for Quickly Growing Your Business. Dallas, TX: BenBella Books, Inc.
- Sooy, B. (2017). The Marketing Matrix: Six Elements of a Nonprofit Marketing Plan. *Nonprofit Information*. Retrieved from <u>http://nonprofitinformation.com/nonprofit-marketing-plan-elements/</u>
- TaxExemptWorld. (2019). Nonprofit & 501C Organizations Amarillo, TX. Retrieved from https://www.taxexemptworld.com/organizations/amarillo-tx-texas.asp
- United Way of Amarillo & Canyon. (2019). 2018 Community Status Report. Retrieved from https://www.unitedwayama.org/sites/unitedwayama.org/files/UWAC-Report-2018-a.pdf
- Varadarajan, P. Rajan and Anil Menon (1988), "Cause-Related Marketing: A Coalignment of Marketing Strategy and Corporate Philanthropy," *Journal of Marketing*, 52 (July), 58–74.
- Westwood, J. (2019). *How To Write* A Marketing Plan (6th ed., pp.6). New York, NY: Kogan Page Limited.
- Venable, Beverly T., Gregory M. Rose and Faye W. Gilbert (2003), "Measuring the Brand Personality of NonProfit Organizations," in *Advances in Consumer Research*, Punan Anand Keller and Dennis W. Rook, eds., Valdosta, GA: Association for Consumer Research, Vol. 30, 79.

Venable, Beverly T, Rose, Gregory M, Bush, Victoria D, & Gilbert, Faye W. (2005). The role of brand personality in charitable giving: An assessment and validation. *Journal of the Academy of Marketing Science*, 33(3), 295-312.

With sector growth, nonprofits likely to face staffing challenges. (2015). Nonprofit Business Advisor, (308), 1-3.

NICK SABAN – A CASE STUDY FOR RECRUITMENT METHODS AND APPLICATION OF TUCKMAN'S MODEL OF TEAM DEVELOPMENT

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CASE DESCRIPTION

This case is well-suited to an introductory-level management class where curriculum includes concepts of recruiting, managing teams, and Tuckman's Model of Team Development. For this case, the primary subject matter concerns recruitment methods; the importance of team development; identifying the characteristics of each stage of team development; and how leadership can guide teams through the team development process. A brief overview of the history of college football will be presented. In addition, it will analyze the career and recruitment tactics of Nick Saban, head coach of the University of Alabama football team. Tuckman's Model of Team Development will be presented and the ability to implement Saban's recruitment success in the world of business will be examined for viability.

This case has a difficulty level of three-four (junior-senior level) and is designed to be taught in an introductory management principles class. The case can be taught in less than two class hours with an additional one to two hours of outside preparation time by students.

CASE SYNOPSIS

College Football has become one of the most popular and most watched sports in America. As games, conferences, and rivalries become competitive, teams and coaches must turn to their recruitment and team development techniques as a way to ensure success for years to come. As players graduate, enter the NFL draft, or get injured, teams need a dependable group of players ready to step up and be productive members of the team. Businesses work to recruit and retain employees of high value who will be beneficial to their business for the foreseeable future. While there may be obvious differences in the recruitment needs of coaches and managers, they are all working towards the goal of finding the best person for the job. Tuckman's Model of Team Development can be used to analyze recruitment and team development methods of both college football teams and standard businesses.

HISTORY OF COLLEGE FOOTBALL

The National Collegiate Athletic Association (NCAA) recognizes the first official college football game as the 1869 matchup between Rutgers University and the College of New Jersey, which is now known as Princeton University. The game took place on November 6 and was

played in New Brunswick, New Jersey. Only an estimated 100 people were in attendance, which is a far cry from the packed stadiums we commonly see today (Richmond, 2019). The original rules of the game were based on the London Football Association. This did not allow any player to pick up or throw the ball, creating a better comparison to soccer or rugby than what we know as football. At this time, twenty-five players were allowed to take the field for each team, again a stark difference when compared to modern-day, eleven-man football (Parlier, 2020).

The first rivalry in college football, which is still very active today, was Harvard v. Yale. The pair played their first matchup in 1875, and this is one of the first games that began using more regulations and rules that were more akin to modern-day football (Jost, 2011).

Seven years after the first official game, the first set of rules for American football were established by representatives from Columbia, Harvard, Princeton, and Yale. The group of men met at Massasoit House in Springfield, Massachusetts to discuss how best to move forward as the game was beginning to gain both attention and popularity. It was at this meeting that the "Father of American Football" emerged. Walter Camp is regarded as almost the inventor of modern-day football and is credited with implementing common rules and regulations like the line of scrimmage, the quarterback snap, and the downs system (Parlier, 2020).

We are accustomed to having countless college football games available for our viewing and subsequent scrutinizing on any given fall weekend. However, it was not always like this. It was not until October 1921 that the first game was aired on the radio. The rivalry between West Virginia and Pittsburgh University was broadcasted on a commercial radio station in Pittsburgh, KDKA-AM. Eighteen years later, in 1939, Fordham played Waynesburg for their season opener and this game was the first to be broadcast on television. NBC played the game on W2XBS with a broad estimate of 500-5,000 viewers tuning in (Parlier, 2020).

Instant replay is another aspect of college football that is regularly taken for granted. Now, plays can be replayed as many times as needed and from a handful of angles to determine exactly what happened. However, this technology was not used until 1963, when a 1,300-pound machine wound back the tape and showed a potential touchdown in an Army vs. Navy game over and over for the fans, coaches, and officials alike. It was eventually determined that Army did not make the touchdown (Parlier, 2020).

Another notable first in the world of college football includes the implementation of twopoint conversions. This rule was not officially added to NCAA guidelines until 1958. This was done in hopes of increasing scores and creating more balance between offensive and defensive play. The first year two-point conversions were in play, teams appeared to favor them more than they do now, with this play being attempted 51.4% of the time (Parlier, 2020).

Today, there are various conferences, bowl games, rivalries, and championships. A major factor in the creation of these divisions and matchups is the use of rankings, which was not common until 1936. That year, the Associated Press released the first set of rankings that included 20 teams. At the end of the season, Minnesota was at the top of the list, making them the official champion (Parlier, 2020).

In 1998, the Bowl Championship Series (BCS) was established to revamp the ranking system. This system now matched top-10 teams with one another to compete in an end-of-season
bowl game. The No. 1 and No. 2 ranked teams were to compete for the championship title. The first year of this system, Tennessee defeated Florida State (Parlier, 2020).

2014 saw another revamp of the system with the introduction of the College Football Playoff (CFP). In this system, the top 25 teams are ranked each week of the regular season. After the final regular season week, the top four teams are matched up to play in a playoff round. The winners of the first round of playoffs then play one another in the CFP National Championship game. The first CFP National Championship game saw Ohio State defeating Oregon (Parlier, 2020).

NICK SABAN

Coach Nick Saban recently completed his thirteenth season as head coach for the Alabama Crimson Tide football team. He started with the program in 2007 after coaching stints with Louisiana State University, the Miami Dolphins, and other various college and professional programs. His overall college coaching record boasts over 240 wins and less than 70 losses (The University of Alabama, n.d.). Overall, Saban holds a .791 winning percentage, and each season with the Tide has resulted at least an .84 winning percentage or higher (Nick Saban Coaching Record: College Football at Sports, n.d.).

Saban's first season at Alabama was dismal compared to where the program stands today. Saban and his team went 7-6, with a sixth straight loss to rival Auburn in the Iron Bowl (The University of Alabama, n.d.). However, the shift in leadership and level of trust for the still new coach was evident as Saban and the Tide went 12-0 in the 2008 season. Since then, under Saban's leadership, the Crimson Tide has produced overwhelmingly successful results, boasting at least 10 wins each season since 2008.

Saban is a highly regarded individual at the University of Alabama. This is evidenced by his major contract and subsequent compensation package. In 2018, Saban signed an additional contract extension, increasing his contract to run through the 2025 season. That year, his salary increased to \$7.5 million with a \$400,000 increase to be expected each year after. He also received a signing bonus of \$800,000, which was to be duplicated for his completion of the 2019, 2020, and 2021 seasons (Associated Press Editors, 2018). This contract extension was perceived as great news for Saban and Alabama fans alike.

Saban is a six-time National Coach of the Year, SEC Coach of the Year, Bobby Dodd National Coach of the Year, and was the first recipient of the Bobby Bowden National Coach of the Year Award. He is one of only two coaches to ever win six national titles in the poll era, with the other being former Alabama coach, Paul "Bear" Bryant (The University of Alabama, n.d.). He is widely considered one of the greatest coaches in the history of modern college football.

Obviously, Nick Saban is doing something right when it comes to recruiting players for the Crimson Tide, evidenced by the fact that Alabama has finished with the No. 1 recruiting class multiple times, including a seven-year reign as the top class from 2011-2017 (Nick Saban, 2019). He has been responsible for recruiting powerhouses that have gone on to have widely successful NFL careers, with 34 Saban-coached Alabama players going in the first round of their respective drafts (Martinelli, 2019). Many aspects of Saban's tactics are different and distinct from other

programs, such as the fact he is constantly recruiting. He chooses not to rest on his current roster and their talent. Rather, he works to better his team and fill their weak spots (Busch, 2017).

Saban seems to have a recruitment pitch that is carefully prepared and polished. Based on reports from past players, fellow coaches, and staff members, Saban seems to use many symbols as a way to relate to players and their families. One of these symbols is reported to be a grand piano. As the story goes, Saban and his wife purchased this piano when they could not truly afford it. They spent several years paying off the piano. This demonstrates that Saban is willing to have persistence when working towards a goal and expects his players to do the same. Lastly, it allows Saban to relate more to potential players as it shows he once struggled with finances and lived more humbly.

In addition, Saban uses more conventional tactics. His home office is decorated with photos of his National Championship winning teams and his National Championship rings. All of this seems to serve as a way to show potential players that they can and most likely will win with Alabama (Gallo, 2019). He ends the pitch by stating, "We want you, but know that we will win with or without you". Again, this sets him apart from other coaches as it puts more hype around the program, instead of the potential individual player (Gallo, 2019).

This entire pitch is clearly successful. Former Alabama player Josh Chapman, who went on to play as defensive tackle for the Indianapolis Colts, remembers his recruitment time spent with Saban fondly. Chapman was set to go play for rival school Auburn University until he met with Saban in his home office. During this meeting, Chapman says the spark in Saban and his team became truly evident, and he felt the plan Saban had in place for the young player. It was enough to sway his decision, and Chapman soon became a key member of the Crimson Tide (Anderson, 2017).

You cannot discuss Saban's team development and leadership strategy without discussing what is referred to as "The Process". This method was born in 1998 when Saban and his underdog team of Michigan State Spartans faced off against number one ranked Ohio State. Instead of focusing on what most would consider an already decided outcome of the game, he chose to have his team focus on the basic process of what it takes to play good football. "The Process" worked, and Saban and his team defeated the Buckeyes. Saban has implemented this method at every team he has coached since then with the most success being found with Alabama. In short, Saban trains his team to focus solely on each individual play. Players, coaches, and staff members alike are taught to not look at the scoreboard or other external factors. Instead, all attention is placed on the present play. Despite the outcome, the team then moves on to the next play, and the next play, and so on until the end of the game (Samuels, 2018). This differs from many other coaches and programs as the main focus is usually on the outcome of the game as a whole, regardless of what the team did to get to the end results, as opposed to placing the focus on each individual play and what it takes to be successful in that moment alone.

The Tide is on a tight schedule when it comes to team development. A football season only lasts from August through early January, which does not allow time for mistakes to take place. To combat this, Saban and his team practice throughout the off-season, as much as allowed based on NCAA rules. According to NCAA rules, during the off-season, teams are limited to a maximum of eight hours per week, which can only be made up of weight training, conditioning, review of film, and walk-throughs (NCAA Bylaws, n.d.). Taking advantage of the practice allowed enables them to work through the initial stages of team development during a less risky time. Conflict occurring in the off-season is much easier for a team to manage than if it came during a high-stakes week in the regular season. This is because conflict during the off-season has a higher likelihood of taking place internally and only involving members of the team. This empowers Saban and his team to overcome conflict in a simpler manner, as they are only responsible for their own ideas, thoughts, and actions. During the regular season, conflict includes opposing teams. This conflict is more complicated to resolve because Saban and his team have no control over their opponents' thoughts, ideas, and actions. Since the Tide cannot change their opponents, they simply have to concentrate on their team and find solutions to their internal conflict.

Saban and his team participate in several team bonding activities. For example, following the team's spring game, which is a scrimmage between players on the team, the winning group joins Saban for a steak dinner. The losing team is left with pork and beans (Byington, 2017). This has been a long-standing tradition. Both players and fans enjoy the jokes and comradery that transpire because of the team's spring game. The University of Alabama has countless other traditions, especially concerning their football program. These traditions assist and encourage the team members' bonding, especially when it comes to the team's new players. By ensuring his players become familiar with each other early in the off-season, Saban builds a positive norming stage.

COLLEGE FOOTBALL VS. THE BUSINESS WORLD

College football and the business world have more similarities than one might assume. Both situations are highly competitive. College football is full of young players dedicated to the sport and performing at peak levels. The team must have the ability to contend with their competition. In the business world, job markets are extremely competitive. Therefore, it is a necessity for organizations to recruit and maintain top talent, just as football teams do. Both types of organizations want the best and brightest individuals for their respective teams and companies. Therefore, they must have effective recruitment and team development techniques. These methods will likely look different for a college football team than they will for a corporation. However, their goal is ultimately the same: find and retain the best person(s) for the job.

The two worlds do contrast in a couple of key areas. One major difference that impacts how they recruit and develop their team is the turnover rate. College football teams can lose up to a quarter of their players per year. This could be due to graduations, transfers, injuries, or the choice to enter the NFL draft early. Because of this, the team must have a solid bench of players ready to step up and perform in a highly productive manner at any given time. In the business world, the rate of loss is less extreme and predictable. There is no typical eligibility period like there is in college football. Consequently, a business does not need a roster of employees ready to step in immediately when needed. Instead, companies generally train their employees slowly and allow them to gain experience before promoting them to the equivalent of a "starting position" within the organization.

TUCKMAN'S MODEL OF TEAM DEVELOPMENT

In 1965, Bruce W. Tuckman introduced a model that described four stages to team development according to his study, "Developmental Sequences in Small Groups" (Tuckman, 1965). Tuckman's model of team development has been classified as linear-progressive (Mennecke, 1992). Therefore, to become a functioning team, members will progress through the following four sequential developmental stages: forming, storming, norming, and performing (Tuckman, 1965). In 1977, Tuckman and Mary Ann Jensen reviewed teaming literature and determined is was necessary to add a fifth stage to the model: adjourning (Tuckman & Jensen, 1977; Knight & Tippett, 2006). Although teams will experience all stages of development, Tuckman's model does not account for the length of time teams will spend in each developmental stage (Sutherland & Stroot, 2010). Consequently, the longevity of the team as well as the tasks needing accomplished are determining factors as to how long groups will stay in each stage (Sutherland & Stroot, 2010).

According to Tuckman's research, each stage of team development has two dimensions: interpersonal and task (Tuckman, 1965). The interpersonal dimension relates to the human side of teams (Mackey, 1999). This incorporates how members interact with one another; the team's behaviors; and the relationships formed among team members (Mackey, 1999; Sutherland & Stroot, 2010; Noel & Patterson, 2006; Anderson, 2010). Trust and conflict among members; task accomplishment; and team's morale and cohesion are all impacted by the interpersonal dimension (Mackey, 1999; Sutherland & Stroot, 2010; Noel & Patterson, 2006; Anderson, 2010). For a team to be successful, it is important to note that cohesion is imperative (Severt, et al., 2016; Yalom, 1995). The task dimension pertains to the necessary activities being divided among team members so the assigned work can be completed (Mackey, 1999 Sutherland & Stroot, 2010).

The stages of team development are distinct and well-defined (Mackey, 1999). In the initial stage of team development, forming, the team members come together for the first time and interpersonal relationships begin (Tuckman, 1965; Knight & Tippett, 2006; Francis & Young, 1979; Weinberg & Gould, 1995). During the forming stage, team members are getting acquainted with one another; determining their roles within the team; becoming acclimated to the task; and forming a team identity (Noel & Patterson, 2006; Knight & Tippett, 2006; Anshel, 1995; Weinberg & Gould, 1995; Yalom, 1995). In addition, boundaries may be tested between the team's leaders and members to help alleviate any ambiguity as to who will be on the actual team (Tuckman, 1965; Roeske-Carlson, 2000; Francis & Young, 1979; Weinberg & Gould, 1995).

Storming is the second stage of team development (Tuckman, 1965). This stage is plagued with conflict and competition: members' resistance to the team's influence; rebellion against one another; and defensive and emotional responses to task demands (Tuckman, 1965; Knight & Tippett, 2006; Mackey, 1999; Roeske-Carlson, 2000). Conflict is unavoidable when

people are working together, and there are numerous reasons for conflict to occur (Seck & Helton, 2014). First, members may become arrogant and/or comfortable enough with the team to express their honest thoughts (Kurland & Salmon, 1998). This will inevitably lead to differences of personalities and opinions. Second, issues relating to one's power, control, and position within the team's hierarchy can lead to conflict and opposition among members (Weinberg & Gould, 1995; Anshel, 1995; Carron, 1982; Cartwright & Zander, 1968; Francis & Young, 1979; Tuckman, 1965; Weinberg & Gould, 1995). Finally, team members face the challenges of how to effectively address, handle, and resolve conflict (Noel & Patterson, 2006). Even though conflict can be difficult for members to endure, avoiding it is not advantageous for teams (Mackey, 1999). Teams must create an environment where members can present their issues and concerns without being disrespected or attacked (Mackey, 1999). It is essential for members to manage their differences in a cooperative manner for the team's overall effectiveness, growth, cohesion, and success (Yalom, 1995; Seck & Helton, 2014).

The third stage in Tuckman's model of team development is norming (Tuckman, 1965). The norming stage is marked with trust, openness, cooperation, and shared understanding and expectations of team members (Knight & Tippett, 2006; Seck & Helton, 2014; Carron, 1988; Roeske-Carlson, 2000). Since trust and respect are present, members candidly communicate their ideas, concerns, and constructive criticism (Mackey, 1999; Seck & Helton, 2014; Roeske-Carlson, 2000). With the open lines of communication, the team has the ability to establish new roles, ground rules, goals, and acceptable behavior and norms (Seck & Helton, 2014; Mackey, 1999; Carron, 1988; Weinberg & Gould, 1995; Noel & Patterson, 2006; Roeske-Carlson, 2000). In addition, members finally begin to function and grow as a team as they work together to accomplish their goals and assigned tasks (Mackey, 1999; Knight & Tippett, 2006; Carron, 1988). Members develop team unity and cohesiveness as they appreciate the value of working together instead of individually (Knight & Tippett, 2006; Anshel, 1995; Carron, 1982; Carron, 1988).

When the team becomes highly functional, productive, and cohesive, they have reached the fourth stage of team development, performing (Tuckman, 1965; Noel & Patterson, 2006; Mackey, 1999; Carron, 1988; Yalom, 1995). In this stage, members have strong relationships allowing them to communicate effectively in order to solve problems and make decisions in the best interest of the team (Carron, 1988; Yalom, 1995; Noel & Patterson, 2006; Mackey, 1999; Weinberg & Gould, 1995). Members focus on effectively working together to successfully achieve task completion and team goals (Carron, 1988; Yalom, 1995; Seck & Helton, 2014; Noel & Patterson, 2006). For this to happen, confidence, cooperation, and trust are demonstrated by each team member (Weinberg & Gould, 1995; Seck & Helton, 2014; Carron, 1988; Yalom, 1995). It is important to note that people who have had the opportunity to work in highly performing teams state that it is personally beneficial; however, it is extremely difficult to obtain and remain at this stage of optimal team development (Mackey, 1999).

In the final stage of team development, adjourning, the team is disbanding (Tuckman & Jensen, 1977; Sutherland & Stroot, 2010). Here, members complete or postpose their final tasks and objectives (Tuckman & Jensen, 1977; Seck & Helton, 2014). In addition, members may

become emotional as they reflect on how the team's strengths, goal accomplishments, relationships, and the team's journey impacted them on a personal level (Sutherland & Stroot, 2010; Seck & Helton, 2014).

Team development is a complex process (Roeske-Carlson, 2000). Glacel and Robert stated, "In the development of any team, certain stages of behavior [Tuckman stages model] take place which impact how well the individuals and the team accomplish their task" (Glacel & Robert, 1996). Irvin Yalom provided further explanation on the importance of group development and how it is an actual process. He demonstrated that if particular learning and growth processes were bypassed in the early phases of team formation, then the team will be incapable of reaching the performing stage of team development (Yalom, 1995). Numerous individuals and organizations believe a team's productivity and performance can be significantly enhanced if leadership properly navigates members through Tuckman's stages of team development (Glacel & Robert, 1996; Knight & Tippett, 2006).

HOW FOOTBALL TEAMS DEVELOP UTILIZING TUCKMAN'S MODEL

Just like a business, football teams go through each stage of Tuckman's Model of Team Development. The process and its individual steps may look slightly different than it is perceived in the business world, but the wanted outcome is still the same: to build and develop the best and most successful team possible.

The forming stage for a football team would involve the entire recruiting process. Potential players are getting their first feel for the team dynamics and deciding if it would be a good fit for them. Recruitment takes place for each individual position and role on the team, making this a more continuous process based on the team's needs for the upcoming season. Beyond the recruitment process, this stage also encompasses the process of selecting which eleven players should take the field at one time. This decision also includes looking at how players connect with one another. For example, the team must determine which receivers perform the best with the quarterback and how to utilize them together and separately.

For the second stage of team development, storming, players may feel competition among themselves. Often, players are competing for starting positions and feel the pressure this creates, leading to conflict among teammates. The conflict created in this stage may cause the team to partially regress to the forming stage again as players are evaluated and reevaluated.

In the norming stage, the strategy and plan for progression has been well-established and thoroughly communicated to the team. In addition, players practice in their respective positions and adjustments are made as needed. The tasks and activities completed by team members allows the team to enter the performing stage. Here, the team competes against their opponents and utilizes the tactics determined in the earlier stages of team development to reach the best possible outcome.

Adjourning, or the final stage, comes at the end of the season for most players. In this stage, various players leave the team for the NFL draft, transfer to another school, or graduate from the university and lose eligibility. In addition, coaches and staff may move positions or leave the team all together. Adjourning can also take place for individual players any time

throughout the season. In this case, a player would most likely face a season-ending injury, expediting the adjourning process for them as an individual.

This team development process is obviously applied to the season as a whole; however, it can be applied on a weekly basis as well. Every week, the team will encounter a new opponent with a different set of strengths and weaknesses, presenting various challenges for the team to address. Consequently, the team must be responsive to this and adjust their strategy accordingly.

YOUR ASSIGNMENT

Using resources available to you, research activities, actions, and/or behaviors Coach Saban engages in during each individual stage of the team building process. Be sure to provide the information you find and properly cite (i.e. reference) all supplemental sources.

REFERENCES

- Anderson, L. (2017, October 3). Nick Saban and the Inner Workings of His Alabama Recruiting Machine. Retrieved from https://bleacherreport.com/articles/2350958-nick-saban-and-the-inner-workings-of-his-alabamarecruiting-machine
- Associated Press Editors. (2018, July 27). Alabama gives Saban one-year extension through 2025. Retrieved from https://www.si.com/college/2018/07/27/nick-saban-contract-alabama-extension-term-value
- Bishop, G. (2013). Big Game Doesn't Stop Recruiting By Saban. *New York Times*. Retrieved from https://search-proquest-com.databases.wtamu.edu/docview/1815104433?accountid=7143&rfr_id=info:xri/sid:primo
- Busch, S. (2017). Own The Process. The 'Magic Bullet' for recruiting top talent. Three letters. Starts with 'Y'... *Reeves* Journal,16–17.Retrievedfromhttps://searchproquest.com.databases.wtamu.edu/docview/1876465049?rfr id=info:xri/sid:primo
- Byington, A. (2017, April 21). A-Day more than 'steak and beans' for several players. Retrieved from https://www.montgomeryadvertiser.com/story/sports/college/alabama/2017/04/21/day-steak-beans-several-players/100766852/.
- Gallo, C. (2019). Nick Saban's Brilliant Use Of Props To Recruit Top Talent To Alabama's Crimson Tide. Retrieved from <u>https://www.forbes.com/sites/carminegallo/2019/01/07/nick-sabans-brilliant-use-of-props-to-recruit-top-talent-to-alabamas-crimson-tide/#5f16b732f778</u>.
- Jost,K.(2011).College Football .CQResearcher. Retrieved from http://library.cqpress.com.databases.wtamu.edu/cqresearcher/document.php?id=cqresrre2011111800&abstr act=false
- Parlier, S. |. (2020, January 31). College football history: Notable firsts and milestones. Retrieved from https://www.ncaa.com/news/ncaa/article/2020-01-31/college-football-history-notable-firsts-and-milestones

The University of Alabama. (n.d.). Retrieved from https://rolltide.com/sports/football/roster/coaches/nick-saban/683.

- VanHaaren, T. (2019, March 11). How Nick Saban and his former assistants dominate recruiting. Retrieved from https://www.espn.com/college-football/story/_/id/26228756/how-nick-saban-former-assistants-dominate-recruiting.
- Anderson, B. (2010). PROJECT LEADERSHIP AND THE ART OF MANAGING RELATION-SHIPS. *T D*, 64(3), 58-63.
- Anshel, M. H. (1995). Examining social loafing among elite female rowers as function of task duration and mood. Journal of Sport Behavior. 18. 39-49.
- Carron, A. (1982). Cohesiveness in sport groups: Interpretations and considerations. Journal of Sport Psychology. 4. 123-138.
- Carron, A. (1988). Group dynamics in sport: Theoretical and practical issues. London, Ontario: Sports Dynamics.
- Cartwright, D., & Zander, A. (1968). Group dynamics: Research and theory (3rd ed.). New York: Harper & Row.

- Francis, D., & Young, D. (1979). Improving work groups: A practical manual for team building. San Diego, CA: University Associates.
- Glacel, B. P., & Robert, E. A. (1996). Light bulbs for leaders: a guide book for team learning. New York: Wiley.
- Knight, P., & Tippett, Don. (2006). *The Tuckman Team Development Model's Ability to Explain Small Short Duration Technical Team Development as Evidenced by DAU Teams*, ProQuest Dissertations and Theses.
- Kurland, R., & Salmon, R. (1998). *Teaching a methods course in social work with groups*. New York, NY: Council on Social Work Education.
- Mackey, K. (1999). Stages of team development. IEEE Software, 16(4), 90-91.
- Martinelli, M. R. (2019, April 26). NFL Draft: Nick Saban has 13 more first-round picks than losses at Alabama. Retrieved from https://ftw.usatoday.com/2019/04/nfl-draft-quinnen-williams-jonah-nick-saban-alabamajosh-jacobs
- Mennecke, Brian E. & Hoffer, Jeffrey A. (1992). The Implications of Group Development and History for Group Support System Theory and Practice. *Small Group Research*. Vol. 23, No. 4, p. 524-573.
- NCAA Bylaws. (n.d.). Retrieved from https://web3.ncaa.org/lsdbi/search/bylawView?id=8823
- Nick Saban. (2019, August 23). Retrieved from https://www.saturdaydownsouth.com/coaches/nick-saban/
- Nick Saban Coaching Record: College Football at Sports. (n.d.). Retrieved from https://www.sports-reference.com/cfb/coaches/nick-saban-1.html
- Noel, D., & Patterson, Kathleen. (2006). Cohesive Strategies for Group Leadership: The Relationship of Cohesion to Stages of Group Development, ProQuest Dissertations and Theses.
- Richmond, S. (2019, November 6). 1st college football game ever was New Jersey vs. Rutgers in 1869. Retrieved from https://www.ncaa.com/news/football/article/2017-11-06/college-football-history-heres-when-1stgame-was-played
- Roeske-Carlson, D. (2000). Assessing Team Development and the Group Process in Sport, ProQuest Dissertations and Theses.
- Samuels, D. (2018, January 31). Nick Saban breaks down what "The Process" really is, and where his belief in it began. Retrieved from https://footballscoop.com/news/nick-saban-breaks-process-really-belief-began/
- Seck, M., & Helton, L. (2014). Faculty Development of a Joint MSW Program Utilizing Tuckman's Model of Stages of Group Development. *Social Work with Groups*, *37*(2), 158-168.
- Severt, J., Costanza, David, Behrend, Tara, DeCostanza, Arwen, Goodwin, Gerald, & Offermann, Lynn. (2016). *The Effect of Leader Behavior and Team Processes on the Development of Team Cohesion*, ProQuest Dissertations and Theses.
- Sutherland, S., & Stroot, S. (2010). The Impact of Participation in an Inclusive Adventure Education Trip on Group Dynamics. *Journal of Leisure Research*, 42(1), 153-176.
- Tuckman, B. (1965). Developmental sequence in small groups. *Psychological Bulletin*, 63, 384-399.
- Tuckman, B. W., & Jensen, M. A. (1977). Stages of small group development revisited. *Group and Organizational Studies* 2, 419-427.

Weinberg, R., & Gould, D. (1995). Foundations of sport and exercise psychology. Champaign, IL: Human Kinetics. Yalom, I. D. (1995). The theory and practice of group psychotherapy (4th ed.). New York: Basic Books.

A PROPOSAL FOR MOVING ETHICS FORWARD IN HIGHER EDUCATION

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ABSTRACT

There is consensus among business educators that ethics should be part of a business school education. "Ethics" is a core value expressed by AACSB International, the leading accreditation agency for business schools. Ethical behavior is one of the expectations in the operation of an AACSB accredited business school. In addition, ethics is one of the general skills expected to be included in the curriculum of any AACSB business school. It is during the implementation of this commitment that differences occur. Academics cannot agree on a definition of ethical behavior as well as how ethics should be taught or if it can be taught at all. Ethical behavior changes over time. Ethical behavior varies from country to country and from culture to culture. This manuscript suggests a pathway forward for academicians interested in addressing this challenge to ensure today's business school graduates are prepared for an increasingly complex ethical environment. Specifically, we look to the U.S. Service Academies and Senior Military Colleges (SMCs) for guidance and a model of honor and character that has stood the test of time and suggest a return to foundational values coupled with a stronger ethical community. We argue that this is the only approach that will change the behavior of the business graduate.

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INTRODUCTION

Business educators seek to position their students (and eventual graduates) for success in their chosen fields. That includes preparing students to navigate an increasing dynamic and complex ethical environment. Consider the following headlines from the *New York Times* in early 2019:

- "College Admissions Scandal: Actresses, Business Leaders and Other Wealthy Parents Charged"
- "Japanese Justice Faces Scrutiny in Case of Nissan Chief and U.S. Board Member"
- "Mitsubishi Accuses Carlos Ghosn of Taking a Secret \$9Million Payment"
- "McKinsey & Company Is Again Accused of Misdeeds in Bankruptcy Case"

- "Nissan Faces S.E.C. Inquiry after Executive Pay Scandal"
- "Ethics Inquiry Opened over Justin Trudeau's Actions in Bribery Case"

Against this backdrop, AACSB International has codified the inclusion of "ethical understanding and reasoning" as a general skill area for all AACSB accredited business schools. Specifically, AACSB Accreditation Standard 9 (Curriculum Content) notes students should possess "ethical understanding and reasoning (able to identify ethical issues and address the issues)" (AACSB 2019).

Teaching ethical behavior is not simple. Even AACSB notes they insist that member schools focus on teaching students to "identify ethical issues and address the issues" rather than teaching specific behaviors for students to do or not do. In this way, business educators are put in the position of teaching "ethical sensitivity" or "helping students develop a balanced ethical approach" to guide them when they confront ethical challenges in the future. How should a business school proceed when the desire is not simply to heighten ethical sensitivity, but to ensure graduates are honorable in their ethical responses?

It is suggested here that given today's increasingly complex environment, business schools should move from "working to ensure a high level of ethical sensitivity of our students" to "working to ensure our graduates are persons of high character." Of course, the resultant persons of higher character will be more ethically sensitive. And, they will be more accountable to other members of their community. But the important point for society is; will they be more likely to respond to difficult situations with a level of integrity that inspires trust. The purpose of this manuscript is to propose a model for business schools to consider as part of their continuous improvement processes. Specifically, the model used by the U.S. Service Academies and the six Senior Military Colleges is advanced for consideration. First, the heightened need for a new approach is presented. Second, the challenges of teaching ethics are outlined. Third, the role of the business school accreditation process is addressed. Finally, a call for a commitment to a higher ideal is advanced.

THE NEED FOR ETHICS EDUCATION IN BUSINESS SCHOOL

As previously noted, AACSB business schools must include a focus on ethics in their undergraduate curricula. Yet, even with this inclusion of ethics in the curricula, McCabe et al. (2008) found that more than half of business students admitted to engaging in academically dishonest behaviors as undergraduate students. Students become graduates and business decision-makers. The call for the rethinking of how business ethics should be taught occurs with every new scandal (Carson, 2013). Many suggest that the prospects for meaningful change with regard to business education seems unlikely (Floyd et al., 2013), yet ethical leadership is put forward as the solution for such ethical lapses (Khalid & Bano, 2015). In spite of whether or not meaningful change will happen, business deans have pledged support for ethics education (Bradshaw 2009, Middleton, 2010, Zingales 2012). Wymer and Rundle-Thiele (2017) provide a succinct argument for the inclusion of a strong ethics component in today's curriculum.

The need for ethics education across the business curriculum has been demonstrated by researchers. Cullen (2020) call for a focus on how individuals can "do' responsible management learning in practice, which is the approach that our research takes. Kehoe (1982) points out that young marketers find it difficult to resist unethical decisions of upper management. Christensen, Cote, and Latham (2018) highlight the need for accountants to be confident when making ethical

choices, demonstrating the need for an ethics education that can be practiced while still a student. With regard to the fourth functional area of business, finance, Cagle and Baucus (2006) note that ethics is nearly always omitted from finance textbooks, necessitating the need for these majors to be trained in ethics elsewhere in the curricula, as we propose.

Other research points out that most business law curricula teach ethical theory, which, on the job, is "indirectly or directly implemented in organizations through codes of conduct" (Bird (2018 p. 301). Our research focuses on pedagogy that teaches a code of conduct, which should make the transition from education to work life more natural and comprehensible to the student. Economics majors, often found in business schools, have been found to "free ride" more on others, compared to students in other majors, who contribute more to communally produced goods, indicating the need for increased ethics training of economics majors (Carter & Irons, 1991).

In recent years, there have been several highly publicized cases in which employers or employees acted in unethical ways. Some of these cases are discussed below to illustrate the operating environment awaiting business school graduates. Unfortunately for educators, some of these examples are from universities themselves which could erode the ethical credibility of the academy over time.

Academic Examples

In 2019, Temple University agreed to pay its current and former business students \$5.5 million after admitting that employees of the university inflated admission exam scores of students enrolled in its online MBA program. This falsified data was one factor in its online MBA program being ranked #1 by *U.S. News and World Report* for four consecutive years including 2018. Further investigation revealed that the university had also provided falsified data for six additional graduate programs. *U.S. News and World Report* has since revised the school's MBA program to "unranked" (Gee, 2019).

Presently, there is an ongoing lawsuit alleging parents paid money to consultants who aided applicants seeking admission to prestigious universities, where the merits of their application made admittance unlikely. In some cases, the parents acted without the awareness of the children (Chappel & Kennedy, 2019). The defendant consultants and parents had to find complicit coaches and admission officers to make this fraudulent activity possible. It is reasonable to think this case will further erode trust in members of the academic community.

Corporate Examples

In 2016, Wells Fargo Bank paid a fine of \$185 million and set aside an additional \$5 million to compensate customers for the unethical practice of employees opening unauthorized accounts. This was part of a market penetration sales goal of achieving at least 8 accounts per customer. Specifically, Wells Fargo employees opened checking and saving accounts, applied for credit cards in customers' names, issued debit cards, enrolled customers in online banking services, etc. It is believed that over 2 million of these accounts were opened and more than \$2.6 million in service fees associated with these accounts were collected before the practice was uncovered and stopped. The bank fired over 5,300 employees because of these unethical and illegal actions (Glazer, 2016). By February of 2020, to resolve a civil lawsuit and a Justice Department criminal prosecution concerning the unauthorized accounts scandal, Wells Fargo agreed to pay a three billion dollar fine (Williams, 2020).

In 2017, the Justice Department sued Fiat Chrysler for using illegal software on select vehicles to evade pollution controls. The illegal software program was used to give favorable false test results on emissions tests. Over 100,000 trucks and SUVs passed emissions tests based on these false test results between 2014 and 2016. The Justice Department accused the company of attempting to hide this program in 100 million lines of computer code. Fiat Chrysler denied any wrongdoing for three years. In 2019, the company agreed to settle the charges by paying \$800 million and recalling thousands of vehicles. The company still faces possible criminal charges and civil lawsuits from several states (Puko & Colias, 2019).

In a related, but much larger case, Volkswagen pleaded guilty to criminal charges of emissions fraud in 2017. The company installed a piece of illegal software in its diesel cars enabling them to pass U.S. emissions tests. The illegal software was called the 'defeat device'. The company admitted to using this software in nearly 600,000 vehicles sold in the US. This activity took place between 2006 and 2015. In 2015, Volkswagen agreed to pay penalties exceeding \$20 billion to settle legal cases in the U.S. against the company. This included \$2.8 billion in criminal penalties. Additionally, eight employees have been charged in criminal investigations. Other lawsuits are pending outside of the United States for Volkswagen (Spector & Viswanatha, 2016; Viswanatha & Spector, 2018).

THE CHALLENGE OF TEACHING ETHICS

The above examples of ethical lapses by employees suggest business schools need to review how ethics is taught. However, there are many challenges to the effective teaching of ethics. What is considered ethical and unethical behavior can change over time and can depend, in part, on changes in culture and religious beliefs (Hasnas, 2013). For example, in the past, large parts of the world considered charging interest on loans to be unethical. Even today, Islam views the charging of interest to be evil. In Judaism, it is considered unethical to charge interest to another person of the Jewish faith. Issues like this complicate the teaching of ethics. In these situations, individuals of a specific faith may use religious values to help determine their ethical beliefs.

Significant evidence in the literature suggests that today's college students are different from those of previous years. Studies show that millennials, those born from 1977-1994, feel more entitled and are more narcissistic than previous generations (Gibson et al., 2009; Twenge et al., 2008). College students struggle when balancing their own self-interest with the interest and needs of others. Some students report that they believe a course in ethics would not add value to their degree (Hartman & Hartman, 2004). These factors should be taken into account when determining ethics education curriculum and how to motivate the college student of today (McCabe et al., 2006).

There is some positive news with respect to millennials and ethics. Some studies have shown that students exhibit positive attitudes toward corporate social responsibility (CSR) and a diminished focus on maximizing profit (Christensen et al., 2007). A study also revealed some students were willing to give up a portion of their salary to work for a company with a sense of CSR, and one in five reported that they would give up to 40% of their salary to work for such a company. Some report (McCabe et al., 2006) that peer behavior has the largest effect on cheating. Also, it is reported that over 10,000 students at over 100 schools worldwide are committing to a path of integrity by volunteering to take the MBA oath (MBA Oath, 2012).

Students today are faced with ethical issues that previous generations did not have to address. New technologies and the accompanying ethical questions, including the use of social media, the internet, online privacy issues, hacking, cyber piracy etc. are of particular importance. It is important for ethics education to be relevant to today's students (Bynum, 2011).

There are several major philosophical approaches taught in basic ethics classes. Traditionally they include such topics as utilitarianism, deontology, virtue ethics, social contract theory, etc. Persons involved in the teaching of ethics have argued for the use of stand-alone courses for decades, and some academics have investigated the factors that impact the requirement of a business core course in the undergraduate curriculum (Rutherford et al., 2012). One study shows that almost half of stand-alone courses are taught by those with philosophy training or religious training (46%) while over half are taught outside those departments (McGraw et al., 2012). One of the weaknesses of the stand-alone approach is that it is insufficient to get to the core issue; producing ethical graduates. All too often a stand-alone course does not affect the graduate in a way that would make the graduate more ethical, and Rutherford et al. (2012) points out that more work should be done to evaluate what makes a course in ethics effective in actually changing behavior. Some academics have used the fact that there is little evidence of actual behavior change to argue against the stand-alone course. Others have offered ways of approaching such a course that are not so philosophically theoretical (Hasnas, 2013). The weaknesses of the stand-alone course offset the weaknesses of the alternative method of integration throughout the curriculum. Though careful training of faculty is required with the integration method (Hartman & Hartman, 2004), both should be used (Alsop, 2006).

Just because something is legal does not make it ethical. Moreover, because something is illegal does not make it unethical. Following the law as an ethical standard is simple but it can be misleading. In addition, there are certain ethical issues that are very complex and result in strong opposing views. These include abortion, capital punishment, physician-assisted suicide, mercy killings, etc. While the differences in ethical philosophies are easy to present as an academic exercise, they are often very difficult to implement in an increasingly complex world.

THE IMPACT OF BUSINESS SCHOOL ACCREDITATION

As previously noted, AACSB International requires business schools to include the teaching of ethics in the curriculum in Accreditation Standard nine. Many business schools include ethics as part of their mission statements and/or statement of values. Recall the guidance from AACSB:

• "Ethical understanding and reasoning (able to identify ethical issues and address the issues in a socially responsible manner). (Business standards AACSB, 2018)."

Clearly, ethical awareness and sensitivity has been heightened. It is suggested here that simply "identifying and addressing the issue in a socially responsible manner" is not what most stakeholders want from today's graduates. Rather, they want a person who will act honorably. They want behavior to model integrity in the face of temptation. That's a much higher standard. Not only is it a more difficult ideal to attain, it is also more difficult to measure.

Guidance for documentation of meeting AACSB Standard nine states the ability to "describe learning experiences appropriate to the areas listed in the basis for judgment, including

how the areas are defined and fit into the curriculum." There have been two approaches to meeting this standard: (1) include a stand-alone course in ethics; and (2) integrate ethics throughout courses in the curriculum. Less than one-third of AACSB business schools have a required separate business ethics course at either the undergraduate or graduate levels (Swanson & Fisher, 2008). Therefore, it is assumed most schools have attempted to integrate ethics throughout the curriculum. Research by Mintz (2014) suggests that integration into multiple courses is more likely to illustrate to students that ethics and being ethical is part of everyday life and a behavioral expectation.

THE NEED FOR A NEW ACADEMIC FOCUS TO TEACHING ETHICS

AACSB does not tell member business schools how to teach ethics. Schools have latitude to implement in a way consistent with their mission, students, and operating situation. To date, there has been limited attention given to how undergraduate business schools can create graduates as persons of honor or character. The focus on MBA level (Jorge et al., 2017) creates an opening for the development of a community approach at the undergraduate level. This requires business schools to go well beyond the expectations of the accrediting agency and move to a more defensible position of proactively building a foundation for ethical behavior among their graduates. This can best be done by creating an environment conducive to ethics.

Academic studies of ethics in business schools have historically focused on academic cheating. Such studies tend to document current behaviors and do not focus on how to change the undesirable behaviors. The study of how to deter academic dishonesty such as cheating and the general effectiveness of honor codes has been examined for most of the past century in this country. One early study compared the amount of cheating on an exam among students under an honor system to those taking a proctored exam. The results indicated that students whose classes had an honor system cheated less than students taking a proctored exam (Campbell, 1935).

A related study examined the amount of cheating in five undergraduate sociology classes before and after the introduction of an honor system. Students were allowed to grade their own exams. Cheating was initially reduced after the honor system was in place by a statistically significant amount and further reduced by almost two-thirds after the honor system had been in place for five years (Canning, 1956). The concern shown by academics towards cheating is not mirrored in other ethical areas such as lying and stealing. Historically, honor codes have considered these foundational aspects of ethical behavior particularly appropriate for students training in business.

Another early study on the effectiveness of honor codes in deterring dishonest academic behaviors compared the levels of cheating in universities with and without honor codes. The schools with honor codes had a statistically significant lower level of cheating than schools without an honor code (Bowers, 1964). This study has been supported and in part replicated by the work of McCabe et al. (1993, 2003). It appears that honor codes are effective at schools that fully embed them in the curriculum. However, their adoption is not widespread. The state military academies (The Citadel, Virginia Military Institute), U.S. Service Academies (Army, Navy, Air Force, Coast Guard, and Merchant Marine), schools with large cadet corps (Texas A&M, Virginia Tech, University of North Georgia, Norwich University), and religious institutions (Brigham Young University) all rely on honor codes to buttress the ethical environment they maintain.

School	Honor Code
University of North	On my honor, I will not lie, cheat, steal, plagiarize, evade the truth, conspire to
Georgia	deceive, or tolerate those who do.
Texas A&M	An Aggie does not lie, cheat or steal, or tolerate those who do.
The Citadel	A Citadel student "will not lie, cheat or steal, nor tolerate those who do."
Virginia Military	A Cadet will not lie, cheat, steal, nor tolerate those who do.
Institute	
Norwich University	We are men and women of honor and integrity. We shall not tolerate those who lie,
	cheat, or steal.
Virginia Tech University	As a Hokie, I will conduct myself with honor and integrity at all times. I will not lie,
	cheat, or steal, nor will I accept the actions of those who do.

Honor Codes of Special Military Colleges

It is suggested here that a focused undergraduate community can be built around honor and ethical behavior by following examples from the U.S. Service Academies. So, the important question is; how should schools teach ethics in such a way that the students apply it throughout their lives? The following sections will describe how the military schools deal with the question of honor, how some AACSB level schools have used honor codes to supplement their ethics education, and finally a modest proposal to move ethics education towards the real goal of having graduates who act ethically.

U.S. Service Academies

Consider the following statement from the Air Force Academy website (2019): "Character is the sum of those qualities of moral excellence which compel a person to do the right thing despite pressure or temptations to the contrary." At the United States Air Force Academy, we'll teach you to evince character in everything you do." The Air Force Academy and her sister academies all believe that they can teach character and that it truly makes a difference. So how do they do that? First, they live by a code. At the Air Force Academy the code is as follows:

• *Honor Code:* We will not lie, steal, or cheat, nor tolerate among us anyone who does. In addition, there is an oath and the spirit of the code that help explain more clearly, what honor involves:

- *Honor Oath:* We will not lie, steal, or cheat, nor tolerate among us anyone who does. *Furthermore, I resolve to do my duty and to live honorably, (so help me God).*
- *Spirit of the Code:* Do the right thing and live honorably.

Special Military Colleges

In addition to the major Service Academies, the military system in the United States is further strengthened by a system of 6 Senior Military Colleges (SMCs) designated by the U.S. Army to provide an intense Reserve Officer's Training Corps (ROTC) experience. One of those six, the University of North Georgia (UNG), has a code similar to the Air Force Academy's: • On my honor, I will not lie, cheat, steal, plagiarize, evade the truth, conspire to deceive, or tolerate those who do.

UNG's code differs from other SMC's in that it includes the words "plagiarize, evade the truth, conspire to deceive," which is implicit in the other SMC's codes, since the words of all the SMC's honor codes, "lie, cheat, steal," can easily be interpreted to cover the UNG's additions.

The wording of other SMC's honor codes compares favorably with the Academy honor codes. However, SMCs often add a reference to the school, as in Texas A&M's addition, "an Aggie," or Virginia Tech's addition, "a Hokie." The greatest variant in wording is in Norwich University's code, "We are men and women of honor and integrity. We shall not tolerate those who lie, cheat, or steal," which omits the "I will not" wording. However, that wording is implicit in the pledge not to tolerate the behaviors.

AACSB Peer Institutions

The University of North Georgia's Mike Cottrell College of Business (MCCB) is a part of the six SMCs and is an AACSB accredited business school. It has chosen the five other Senior Military Colleges (SMCs) as peer institutions for purposes of comparison.

- 1. Texas A&M
- 2. Virginia Tech
- 3. The Citadel
- 4. Virginia Military Institute (VMI)
- 5. Norwich University

Recall the earlier discussion about schools seeking to heighten a student's ethical sensitivity. Schools focusing on an ethical community go far beyond the sensitivity standard in the attempt to create people of high character. Consider the following mission statement excerpts:

- The Mike Cottrell College of Business educates students to become <u>ethical business</u> <u>professionals</u> and prepares them to serve as leaders in their communities and in the global marketplace (University of North Georgia).
- The mission of The Citadel's Tommy and Victoria Baker School of Business (BSB) is to educate and develop innovative <u>leaders of principle</u> to serve a global community (The Citadel).

CONCLUSION OF OUR REVIEW

Of all the systems investigated, the U.S. Service Academies take the concept of honor to another level, by focusing on foundational values and creating an ethical community. Ethical dilemmas are recognized up front, but the dilemmas are not the focus. Rather, the focus is that honor is built on what makes an honorable person, a person of character. It is recognized that not lying, not stealing and not cheating do not necessarily make one honorable yet it also recognizes that understanding what those three foundational values require is a basis for ethical behavior.

However, the Service Academies discovered in the 1990's that our society had changed. They found that fewer people arrived at the university with an understanding of what constituted "honor." Past generations witnessed a more clear or well-defined understanding of right and wrong. In general, the ideals of home, church, and school agreed, thus giving children, youth, and college students a common understanding of ethical behavior. By the late 20th century, the lines became blurred. After two decades into the 21st century conflicting voices lead to confusion, questioning, and even anxiety. Young adults are bombarded by dissenting lecturers whose opinions of right and wrong collide daily. The job of finding common ethical standards became much more difficult.

In response to a changing world, Service Academies now provide "Honor Education" that is designed to ensure a base of common knowledge essential for all cadets and future graduates. That knowledge is focused on what the concepts of lying, stealing, cheating and toleration mean. Next, the system provides a process by which "cadets are held accountable to living by the Honor Code." This accountability process is an essential thread throughout the Honor system creating an atmosphere of trust, built on self-reliance that permeates through the student body and through the university itself.

A MODEST PROPOSAL FOR CONSIDERATION

We propose a methodology for incorporating ethical education into the business curriculum that is patterned after the Service Academy model. Our focus is not on the individual pieces, but rather on the building of a suitable and supportive community. The overriding goal is to deliver on the promise of providing ethical graduates who lead as persons of high character. Application of this model requires three key pieces: (1) teaching the basics, (2) emphasizing the development of character and (3) having appropriate accountability measures.

Teaching the Basics

To ensure a common foundation among students, the following steps are recommended:

- 1. Develop an Honor Code.
- 2. Provide the equivalent of a one-hour ethics course focused on what is considered lying, what is considered stealing, and what is considered cheating.
- 3. Integrate ethics training throughout the curriculum.
- 4. Supply an appropriate level of accountability.
- 5. Provide a three-hour ethics course taught by a trained faculty in the fields of philosophy or religion.

Academy Definitional Values for Lying, Stealing, Cheating and Tolerating Definitions of the tenets of the Honor Code

LYING: Cadets violate the Honor Code by lying if they deliberately deceive another by stating an untruth or by any direct form of communication to include the telling of a partial truth and the vague or ambiguous use of information or language with the intent to deceive or mislead.

CHEATING: A violation of cheating would occur if a Cadet fraudulently acted out of self-interest or assisted another to do so with the intent to gain or to give an unfair advantage. Cheating includes such acts as plagiarism (presenting someone else's ideas, words, data, or work as one's own without documentation), misrepresentation (failing to document the assistance of another in the preparation, revision, or proofreading of an assignment), and using unauthorized notes.

STEALING: The wrongful taking, obtaining, or withholding by any means from the possession of the owner or any other person any money, personal property, article, or service of value of any kind, with intent to permanently deprive or defraud another person of the use and benefit of the property, or to appropriate it to either their own use or the use of any person other than the owner.

TOLERATION: Cadets violate the Honor Code by tolerating if they fail to report an unresolved incident with honor implications to proper authority within a reasonable length of time. "Proper authority" includes the Commandant, the Assistant Commandant, the Director of Military Training, the Athletic Director, a tactical officer, teacher or coach. A "reasonable length of time" is the time it takes to confront the Cadet candidate suspected of the honor violation and decide whether the incident was a misunderstanding or a possible violation of the Honor Code. A reasonable length of time is usually considered not to exceed 24 hours.

To have violated the honor code, a Cadet must have lied, cheated, stolen, or attempted to do so, or tolerated such action on the part of another Cadet. The procedural element of the Honor System examines the two elements that must be present for a Cadet to have committed an honor violation: the act and the intent to commit that act. The latter does not mean intent to violate the Honor Code, but rather the intent to commit the act itself.

Three Rules of Thumb

- 1. Does this action attempt to deceive anyone or allow anyone to be deceived?
- 2. Does this action gain or allow the gain of privilege or advantage to which I or someone else would not otherwise be entitled?
- 3. Would I be dissatisfied by the outcome if I were on the receiving end of this action? (Academy website)

Emphasizing the Development of Character

The Service Academies use a system of "Honor Education" that focuses on creating a community knowledgeable of the components of honor. This system is multi-layered. Initially, the community of cadets and officers know (and for the most part agree to) the meaning attached to a "person of character." The required education for a university embarking on this journey could be packaged in a one credit hour course on ethics, which relies on the venerable tradition of the honor code of the Military Academies and of the Special Military Colleges. "On my honor, I will not lie, cheat, steal, or tolerate those who do." These lessons should include careful definitions of each value.

In the early 1990s, the Academy had an honor scandal--student cheating. Upon further investigation, it was determined that many of the younger cadets involved had deep definitional misunderstandings about the honor code. They did not know what it meant to cheat, lie or steal. The adjustment to the code due to this investigation yielded the present probation and rehabilitation system designed to provide flexibility in the consequences and hence improved the accountability, thereby also improving due process.

In addition to honor lessons, there should be guest speakers on honor and other various strategies included in the ongoing honor education efforts deepening the established patterns of

ethical behavior. One strategy in addition to honor lessons would be to teach the legal standards and punishments allowed by the Federal government (Pavlo, 2018).

Ensuring Appropriate Accountability Measures

Historically, the honor code has been enforced in a variety of ways. The Academies have, since their inception, considered the accountability aspect of their program essential to its success. The methods used to enforce the code at the Air Force Academy are presented here in chronological order:

- Dismissal (1955-61). Cadets were simply dis-enrolled.
- Discretion (1962-71), which allowed cadets to weigh in on punishment of their peers.
- Mental Health (1971-72). Violators were referred for mental health counseling.
- Legal model (1973-76). Cadets were assigned attorneys to assure their rights to due process were protected.
- Suspension (1976-84). Cadets were sent away for up to a year to ruminate on their offenses before returning to finish their degrees.
- Military justice (1984-86). The honor board procedure was suspended, and cadets faced review under the Uniform Code of Military Justice (UCMJ) overseen by officers.
- Disciplinary phase (1986-91). Violators were "sentenced" to march tours on the Academy's terrazzo to work off punishment.
- Moral rehabilitation and dismissal (1992-present).

The present accountability provisions at the Academy allow for probation and rehabilitation before or instead of dismissal. These accountability standards would be considered drastic and harsh at most secular universities. The appropriate level of accountability required to make this system work is beyond the scope of this work. However, it can be noted that an open question, beyond the scope of this work, remains: how much do the accountability provisions show the seriousness of the issue to those in the system?

IMPLEMENTATION

This commitment to a higher ideal (creating persons of high character versus creating persons of higher levels of ethical sensitivity) should be embraced by business school accrediting agencies and their members. Rather than asking, "Do you have an ethics course, or do you integrate ethics throughout the curriculum?" ... the question should be, "How did you enhance the ethical climate of your community and its members?" All universities should start on this path. The strength of this proposal is its universal application. Some with better resources may be able to do all the pieces. Others will prioritize scarce resources based on their own missions. But all should begin the journey and make progress beginning today.

Challenges Ahead

To be clear, we anticipate that implementation will not be easy. There will be resistance from some faculty. Some have argued that their students will not change, that their moral development is over. Close to half of the deans in one survey (Evans & Weiss, 2008) report that faculty lack adequate expertise to teach the nuances of ethical behavior in their disciplines. There will be resistance from some administrators who see the resources required

for this effort as reducing their ability to continue with their more central and traditional objectives. The development of curriculum that supports this journey will require a dedicated faculty with diverse skills. This means that all business schools will need to develop an expertise in this area. An initial consideration will be to have a philosopher or someone similar trained in this area on staff.

Further, because of the general decline of ethics in society (Mintz, 2014) our students are not likely to immediately embrace the idea of an ethical community. Mintz also points out that ethical environments require professors willing to serve as role models for the students themselves. Are faculty ready to embrace this new requirement? The proposed journey will be difficult. This proposal is a paradigm shift requiring time, money, skills, and patience. However, this proposal shows business schools the path to a higher ideal. The authors believe this is a journey worth taking ... for our students and for our society.

The Benefits of This Approach

The benefits of this approach are numerous. First, this proposal shows the development of a community that supports ethical behavior as a journey that does not have to be completed instantly. A good place to begin might be with the introduction of an honor code. The code is simple enough to remember such that, with repetition, students can recall it for the rest of their lives. Approaches that rely on learning about philosophers and their theories are more complex and, we assert, are less likely to be retained. Therefore, they should not be the focus, rather the development of the community should be the focus. Additionally, while learning about philosophers might be useful as an additional component, it adds little to the direct problem of graduates who do not act or behave in an honorable manner. A greater sense of community will create this sense of accountability to the group. Each community member becomes an accountability partner.

Second, the honor code is straightforward enough that a short course would provide an opportunity to examine the foundational issues and their implications. Cases focused on defining the basic elements of lying, stealing, and cheating while involving student behavior and business professional behavior could effectively be used to illustrate what is meant by "lying, stealing, and cheating."

Third, there is an immediate positive effect of such education. This is of value in today's culture of instant gratification. Students see benefits now. They participate in a community where ethical behavior is understood and desired. Because it is foundational to ethical behavior, it is immediately applicable to the students' experiences. They need not wait until they are employed by a corporation to benefit from the application of the course's teaching. The code provides an important backdrop to a community where lying, stealing, and cheating are defined carefully and not allowed, as much as is humanly possible.

This approach uses the most important contextual value, that of peer pressure. When peers are seen accepting the ethical foundation, they will be emulated. Previously learned unethical behaviors of incoming college students should be recognized as the serious problem that it is. The number of high school students that report behaving unethically is stunning. Correcting behavior that is so ingrained must be addressed clearly. This course of study provides tools to resist the ongoing opportunities to lie, steal, and cheat.

Fourth, the benefits of both constructing a stand-alone ethics course and integrating ethics throughout the curriculum are realized. This approach ensures that the information will be taught. Business schools that incorporate ethics into multiple courses run the risk that a chapter

on ethics will be moved to the end of the syllabus and not be taught. This is especially pertinent when we reflect on the essence of becoming an expert in your field. When you receive a PhD. in a field, it is likely that you value your particular field of knowledge: accountants value accounting knowledge, lawyers value legal knowledge, marketers value marketing knowledge; ethics is, for most non-philosophers, a secondary concern. When responsibility is shared, frequently no one feels responsible. Therefore, the use of community to support the other aspects of ethical education becomes crucial.

Last, this proposal gives universities a fighting chance to evaluate the progress of actual behavior, not just content learned in a course. Ethical education at its core is much more than knowledge. This teaching of ethics is at a different level of learning than most undergraduate classes. The lofty ideal of ethics education is to affect how graduates behave and how they apply the lessons taught. Schools who have ethics in their AACSB Assurance of Learning goals can more easily test students' knowledge of the honor code and can more easily demonstrate success to themselves, their accreditors, and other stakeholders. These are our reasons for favoring the development of an ethical community grounded in the honor code's simple, straightforward, bounded approach to teaching ethics.

CONCLUDING REMARKS

The U.S. Service Academies seek to produce persons of high character. It has been suggested here that business schools adopt this higher ideal as their goal when integrating ethics into business school education. No claim is made here that such an approach will be sufficient to ensure ethical graduates. Rather, it is a suggestion of a starting point on a journey to produce graduates who are both ethically sensitive and persons of higher character. The examination of current AACSB standards as it relates to the requirements for teaching ethics allows us to conclude that these standards are insufficient to provide member schools with a foundation for teaching ethics in a meaningful and effective manner. Universities, colleges and schools must further this work on their own or risk political intervention from state and federal mandates. They must reach for a loftier goal for their students and their communities.

This paper proposes the creation of a strong ethical community to support and reinforce ethical behavior. Additionally, a crucial part of that community would be a simple, clear-cut honor code which can provide schools with a proper foundation for teaching ethics. A one-hour ethics course based upon such an honor code can greatly improve the effectiveness of teaching this increasingly important topic. Further resources will be needed to provide a faculty that can support both integration of quality throughout the curriculum and the creation of courses dealing with the philosophical underpinnings of ethics. This is a difficult task. Yet we have a grave responsibility to provide our students with the clearest guidelines of honorable business behavior possible. We must take this responsibility very seriously. In doing so, we should be willing to consider implementing the proven practices currently in use by the U.S. Service Academies into the schoolhouse.

REFERENCES

AACSB business-standards.pdf. (n.d.). 2018. Retrieved from https://www.aacsb.edu/-/media/aacsb/docs/accreditation/business/standards-and-tables/2018-businessstandards.ashx?la=en&hash=B9AF18F3FA0DF19B352B605CBCE17959E32445D9.

- Alsop, P. S. (2006). Business ethics education in business schools: A commentary. *Journal of Management Education*, 30, 11–14.
- Bird, R. C. (2018). On the Future of Business Law. *Journal of Legal Studies Education 35(2)*,301-320. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1111/jlse.12079.
- Bowers, W. J. (1964). *Student dishonesty and its control in college*. Bureau of applied social research: Columbia University.
- Bradshaw, D. (2009, June 8). Deans fight crisis fires with MBA overhaul: Opinions differ on the culpability of business schools in the global economic meltdown, writes Della Bradshaw. *Financial Times; London (UK)*, p. 12.
- Bynum-Simpson, J. F. (2010). An examination of ethics education in Michigan business schools (D.B.A., University of Phoenix). Retrieved from https://search.proquest.com/abicomplete/docview/756488489/abstract/D28BA84C5DFA47D7PQ/1.
- Cagle, J. A. B. and Baucus, M. S. (2006). Case Studies of Ethics Scandals: Effects on Ethical Perceptions of Finance Students. *Journal of Business Ethics* 64(3), 213-229. Retrieved from https://doi.org/10.1007/s10551-005-8503-5.
- Campbell, W. G. (1935). A Comparative Investigation of Students Under an Honor System and a Proctor System in the Same University. University of Southern California Press, Los Angeles.
- Canning, R. (n.d.). Does an honor system reduce classroom cheating? An experimental answer. J. Exp. Educ., 24, 292–296.
- Carson, A. S. (2013). A Framework for Business Ethics Education. *Journal of Business Ethics Education*, 10, 185–210.
- Carter, J. R., & M. D. Irons. (1991). Are Economists Different, and If So, Why?. *Journal of Economic Perspectives* 5(2), 171-177. Retrieved from https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.5.2.171.
- Chappel, B., & Kennedy, M. (2019). U.S. Charges Dozens Of Parents, Coaches In Massive College Admissions Scandal. Retrieved April 4, 2019, from NPR.org website: https://www.npr.org/2019/03/12/702539140/u-saccuses-actresses-others-of-fraud-in-wide-college-admissions-scandal.
- Christensen, A., Cote, J. and Latham, C. K. (2018). Developing Ethical Confidence: The Impact or Action-Oriented Ethics Instruction in an Accounting Curriculum. *Journal of Business Ethics* 153, 1157-1175. Retrieved from https://doi.org/10.1007/s10551-016-3411-4.
- Christensen, L. J., Peirce, E., Hartman, L. P., Hoffman, W. M., & Carrier, J. (2007). Ethics, CSR, and Sustainability Education in the Financial Times Top 50 Global Business Schools: Baseline Data and Future Research Directions. *Journal of Business Ethics: JBE; Dordrecht*, 73(4), 347–368.
- Cullen, J. G. (2020). Varieties of Responsible Management Learning: A Review, Typology, and Research Agenda. *Journal of Business Ethics* 162, 759-773. Retrieved from https://doi.org/10.1007/s10551-019-04362-x.
- Enderle, G. (1996). Towards business ethics as an academic discipline. *Business Ethics Quarterly; Chicago*, 6(1), 43.
- Evans, F. J., & Weiss, E. J. (2008). Views on the importance of ethics in business education: Survey results from AACSB Deans, CEOs and Faculty. In *Advancing business ethics education* (pp. 43–56). Information Age Publishing, Charlotte, NC.
- Evans, J. E., Trevomp., L. K., & Weaver, G. R. (2006). Who's in the ethics driver's seat? Factors influencing ethics in the MBA curriculum. Academy of Management Learning and Education, 5, 278–293.
- Floyd, L. A., Xu, F., Atkins, R., & Caldwell, C. (2013a). Ethical Outcomes and Business Ethics: Toward Improving Business Ethics Education. *Journal of Business Ethics*, 117, 753–776.
- Gee, k. (2019, January 10). Temple University settles suit over fudged data on M.B.A. ranking; university agrees to pay nearly \$5.5 million to current and former business school students. *Wall Street Journal (Online)*.
- Gibson, E. (2009, October 5). When People Reckon It's O.k. to Cheat. *Bloomberg Businessweek; New York*, (4149), 25.
- Glazer, E. (2016, November 2). SEC probing Wells Fargo around sales-practice disclosures; agency sent requests to Wells Fargo for documents in recent weeks, following senators' calls. *Wall Street Journal (Online)*.
- Hartman, L. P., & Hartman, E. M. (2004). How to Teach Ethics: Assumptions and Arguments. *Journal of Business Ethics Education*, 1(2), 165–212.
- Hasnas, J. (2013). Teaching Business Ethics: The Principles Approach. Journal of Business Ethics Education, 10, 275 304.
- Honor Code. (n.d.). Retrieved April 4, 2019, from Air Force Academy website: https://www.academyadmissions.com/the-experience/character/honor-code/.

- Kehoe, W. J. (1982). Marketing Ethics: Theory and Pedagogy. *Proceedings of the 1982 Academy of Marketing Science (AMS) Annual Conference*, 261-264.
- Khalid, K., & Bano, S. (2015). Can Ethical Leadership Enhance Individual's Task Initiatives. *Journal of Business Law and Ethics*, 3(1 & 2), 62–84.
- Larrán Jorge, M., Andrades Peña, F. J., & Muriel de los Reyes, M. J. (2017). Analysing the inclusion of stand-alone courses on ethics and CSR: A study of the MBA curricula of the Financial Times top-ranked business schools. *Sustainability Accounting, Management and Policy Journal; Bingley,* 8(2), 114–137.
- Mccabe, D. L., Butterfield, K. D., & Treviño, L. K. (2003). Faculty and Academic Integrity: The Influence of Current Honor Codes and Past Honor Code Experiences. *Research in Higher Education; New York*, 44(3), 367–385.
- McCabe, D. L., Butterfield, K. D., & Treviño, L. K. (2006). Academic Dishonesty in Graduate Business Programs: Prevalence, Causes, and Proposed Action. *Academy of Management Learning & Education*, 5(3), 294–305.
- McCabe, D. L., & Treviño, L. K. (1993). Academic dishonesty: Honor codes and other contextual influences. *Journal of Higher Education*, 64, 522–538.
- McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (1996). The influence of collegiate and corporate codes of conduct on ethics-related behavior in the workplace. *Business Ethics Quarterly; Chicago*, 6(4), 461.
- McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (1999). Academic integrity in honor code and non-honor code environments: A qualitative investigation. *The Journal of Higher Education; Columbus*, 70(2), 211–234.
- McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (2001). Dishonesty in academic environments. *The Journal of Higher Education; Columbus*, 72(1), 29–45.
- McGraw, D. K., Thomas-Saunders, D., Benton, M., Tang, J., & Biesecker, A. (2012). Who Teaches Ethics? An Inquiry Into the Nature of Ethics as an Academic Discipline. *Teaching Ethics*, 129–139.
- Middelton, D. (2010, May 4). Harvard Business School Names New Dean. Wall Street Journal.
- Mintz, S. (n.d.). Can Business Schools Teach Ethics Effectively? Retrieved April 4, 2019, from Ethics Sage website: https://www.ethicssage.com/2014/09/can-business-schools-teach-ethics-effectively.html.
- Pavlo, W. (2018). Business Schools Should Stop Teaching Ethics And Start Teaching Federal Sentencing Guidelines. Retrieved March 14, 2019, from Forbes website: https://www.forbes.com/sites/walterpavlo/2018/06/25/business-schools-should-stop-teaching-ethics-andstart-teaching-federal-sentencing-guidelines/.
- Puko, T., & Colias, M. (2019, January 11). Business news: Fiat Chrysler to settle emissions accusations. *Wall Street Journal (Online)*.
- Rutherford, M. A., Parks, L., Cavazos, D. E., & White, C. D. (2012). Business Ethics as a Required Course: Investigating the Factors Impacting the Decision to Require Ethics in the Undergraduate Business Core Curriculum. Academy of Management Learning & Education; Briarcliff Manor, 11(2), 174.
- Spector, M., & Viswanatha, A. (2016, August 15). U.S. said to uncover evidence of criminal acts in VW probe; justice department hasn't decided on specific charges; settlement talks under way with carmaker. *Wall Street Journal (Online)*.
- Srinivasan, V. (2011). Business Ethics in the South and South East Asia. Journal of Business Ethics: JBE; Dordrecht, 104, 73-81.
- Swanson, D. L., & Fisher, D. G. (2008). Business ethics education: If we don't know where we're going, any road will take us there. In Advancing business ethics education (pp. 1–23). Information Age Publishing, Charlotte NC.
- The MBA Oath. (n.d.). Retrieved April 4, 2019, from http://mbaoath.org/.
- Twenge, J. M., & Campbell, S. M. (2008). Generational differences in psychological traits and their impact on the workplace. *Journal of Managerial Psychology; Bradford*, 23(8), 862–877.
- Viswanatha, A., & Spector, M. (2018, January 31). Volkswagen supplier to face criminal case in emissions fraud; IAV allegedly aided automaker's conspiracy to rig diesel-powered vehicles with illegal software. *Wall Street Journal (Online)*.
- Williams, P. (2020). Wells Fargo to pay \$3 billion over fake account scandal. From NBC News website: https://www.nbcnews.com/news/all/wells-fargo-pay-3-billion-over-fake-account-scandal-n1140541.
- Wymer, W., & Rundle-Thiele, S. R. (2017). Inclusion of ethics, social responsibility, and sustainability in business school curricula: a benchmark study. *International Review on Public and Non Profit Marketing; Heidelberg*, 14(1), 19–34. http://dx.doi.org/10.1007/s12208-016-0153-z.
- Zingales, L. (2012, July 16). Do Business Schools Incubate Criminals? Bloomberg.