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THE NEXUS BETWEEN BUFFER STOCK OPERATIONS AND HOUSEHOLD FOOD SECURITY IN GHANA: AN OAXACA-BLINDER DECOMPOSITION ANALYSIS

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ABSTRACT

The implications of buffer stock operations on food security as dietary diversity is estimate in this study using cross-sectional data from maize farmers in Ghana. A multinomial logit regression (MNR) and Blinder– Oaxaca decomposition are used to analyse the determinants of household dietary diversity and the impacts of buffer stock operation on dietary diversity. We analyse data from 305 smallholder farmers. The results suggest that access to fertiliser, irrigation facilities and other things influence household dietary diversity score. Overall, the results imply that buffer stock policy has a causal effect on the food security of smallholder farmers' households providing empirical evidence that participating in buffer stock operations increases the dietary diversity score of smallholder rural households by at least 27%. Beyond this agricultural intervention, food choices towards dietary diversity improvement is not only economic issue but a cultural one as well and requires critical assessment of culture and its nuances among the households.

Keywords: *Food security, buffer stock, dietary diversity, Oaxaca-Blinder , Ghana,*

INTRODUCTION

As a multifaceted concept, food security has evolved over the years to have four key dimensions of availability, access, utilisation, and stability, with different metrics of measuring the concept (Pinstrup-Andersen 2009). The access dimension to food as a component of food security comprises three main issues, prices, distribution, and diversity of food with most households in developing countries having malnutrition due to monotonous diets. A key metric for measuring food access and utilisation is household dietary diversity (Suh and Canan, 2026). However, there is a lingering challenge as to whether agricultural-based food security interventions increase dietary diversity. The government of Ghana, since 2010, implemented a buffer stock operation with the aim of stabilising farmers' income and improving their food security (Abokyi and Asiedu, 2023). The question is: has this happened? I take the task of conducting an evaluation of the effect of the buffer stock operation intervention on farmers' dietary diversity. This paper contributes to establishing a causal link between dietary diversity and agriculturally based-food security intervention of buffer stock operations in Ghana.

MATERIALS AND METHODS

Household dietary diversity score, as a food security metric, is the total number of food groups that are consumed by the members of a household over a given period (Hoddinott and Yohannes, 2002). The score ranges from 1 to 12. To call the score, you ensured that the food consumed outside the house is not included in the dietary diversity score computation. The dietary score is calculated for each household. Following Taruvinga et al (2013), the scores are reclassified into three categories: low, medium and high HDD categories. The thresholds are low HDD of 1-3, the medium is HDD score of 4-6, and high has an HDD score of 7-12. The HDD scores, HDD categories and the other variables.

Data

Data is obtained from a survey conducted by the Ministry of Food and Agriculture (MoFA). A total of 30 communities were selected from 15 districts. In all, the survey collected cross-sectional data from 305 households. Details of the selected communities. The questionnaire for the survey was based on the food groups developed by Swindale and Bilinsky (2006). Two estimation techniques are adopted for the analysis of the multinomial logit regression (MNR) model and the Blinder– Oaxaca decomposition. The MNR analysis allows for a categorical variable that has more than two responses, especially those with three responses, as in this case, as low, middle and high categories of the HDD score (Cramer, 1991). In the estimation of the MNR model, the middle response and middle category are normalised as the reference category for the estimation of the MNR model. Following Nkemeleu 2009, the MNR is specified as:

$$P(Y = s) = \frac{e^{\beta_j Z}}{1 + \sum_{j-1}^{s} e^{\beta_j Z}} \tag{1}$$

where *S represents the HDD categories* (s =1,2,3). The dietary diversity effect of buffer stock operations is estimated by the equation below:

$$HDD_i = \alpha + \beta\, NAFCO_i + \lambda Z_i + \delta X_i + \gamma K_i + \varphi F_i + \varepsilon_i \tag{2}$$

With *Z, X, K and K* representing a vector household demographic, farm-level institution and institutional variables.

The Oaxaca-Blinder Decomposition (OBD)

The OBD technique is a regression-based decomposition for estimating between-group differences in an outcome (Foster et al., 2011) developed by Blinder (1973) and Oaxaca (1973). It is used to estimate the meaning differences between groups, i.e., policy on (treatment) and policy off (control), in a counterfactual manner based on observable characteristics (Martha et al., 2017; Garcia, 2016). The OBD technique decomposes the variation in an outcome into two parts. The first part, called the explained part, consists of the difference in characteristics attributable to between-group differences in predictors of the outcome (Elder et al., 2010). The difference in characteristics could include gender and education, among others. The second part, called the unexplained or the residual part, comprises differences in the effect that these predictors have on the outcome (Jann, 2008). For the model specification, I assume:

$$b_{ir} = \beta_{ir} X_{ir} + u_{ir} \tag{3}$$

Where subscript $r = [1,0]$ represents the two different groups (policy on and policy off), b_{ir} is the natural logarithm of HDD score for household i in policy on or policy off *(r)*, X_{ir} is a vector of individual socio-demographic characteristics (covariates), and β_{ir} provides the set of returns for each observed characteristic (vector of coefficients) (Ciaian et al, 2018). X includes gender, age, education and marital status (dummy variable). The residual u_{ir} stands for all the unobservable factors that may affect individual benefits b (Ciaian et al, 2018; Demurger et al., 2012). The observed average difference of the indicator (dietary diversity score) between two groups (policy on and policy off), r_1 and r_0, can be defined as:

$$\Delta \bar{b}_{r_1 r_0} = \bar{b}_{r_1} - \bar{b}_{r_0} \tag{4}$$

Where bars indicate mean values. Substituting equation (1) into (2) yields:

$$\Delta \bar{b}_{r_1 r_0} = \bar{X}_{r_1} \hat{\beta}_{r_1} - \bar{X}_{r_0} \hat{\beta}_{r_0} \tag{5}$$

Where hats denote estimated coefficients from separate benefit equations (Botchway and Asiedu 2020). If a non-discriminatory dietary diversity score structure β^* is known, the log-HDD score differential can be decomposed in the following way (Hirvonen, 2016; Jann, 2008):

$$\Delta \bar{b}_{r_1 r_0} = \underbrace{\left(\bar{X}_{r_1} - \bar{X}_{r_0}\right)'\beta^*}_{\text{explained term}} + \underbrace{\left[\bar{X}_{r_1}\left(\hat{\beta}_{r_1} - \beta^*\right) - \bar{X}_{r_0}\left(\hat{\beta}_{r_0} - \beta^*\right)\right]}_{\text{unexplained term/coefficient effect}} \tag{6}$$

Equation (4) shows that the HDD score gap between policy on, r_1, and policy off, r_0, *is* decomposed into two parts. The first term is the 'explained term' and is the part that shows the difference in the mean HDD score between the policy-on and policy off groups attributable to the presence of the policy (Chen, 2016). The term measures how much individuals in policy on group r_1 would benefit regarding HDD score if they had the same characteristics as those of policy off

r_0. This effect can be interpreted as the part due to treatment following the implementation of the policy, buffer stock operations. The second (bracketed) term is the "unexplained" or residual component and represents the amount by which the HDD score differs between groups.

The empirical results

The results empirical results are presented in Tables 5 and 6. For the multinomial logit model, the focus is on the marginal effects**.** The model based on which the marginal effects were generated had a LR Chi-Square of 439.92 with p-value less than 0.01, Log likelihood of -114.044 with a pseudo R-square of 0.659. These shows the model was well fitted.

Table 5: The average marginal effect of the MLM

Variable	Low Dietary Diversity			High Dietary Diversity		
	Marginal Effect	Std Error	P-value	Marginal Effect	Std Error	P-value
NAFCO	-0.047	0.065	0.467	0.143***	0.027	0.000
Age	-0.00093	0.0017	0.585	-0.00048	0.0009	0.589
Gender	-0.019	0.059	0.749	0.050**	0.020	0.015
Marital status	-0.0074	0.026	0.771	0.037***	0.010	0.000
Education	0.00037	0.013	0.780	-0.0045	0.0063	0.473
Off-farm activities	-0.109**	0.051	0.035	-0.013	0.016	0.393
Farm size	-0.010*	0.0006	0.052	0.00097	0.0012	0.408
Access to fertilizer	0.019	0.055	0.725	0.048***	0.018	0.009
Access tractor	0.169**	0.059	0.004	-0.069**	0.031	0.026
Irrigation	-0.228**	0.052	0.000	0.095***	0.031	0.002
Household size	0.014	0.0090	0.126	-0.015***	0.0054	0.004
Income	-0.00011**	0.00002	0.000	0.000013***	0.0003	0.000
Post harvest loss	0.044	0.059	0.450	-0.0096	0.020	0.626
Land availability	0.052	0.039	0.188	-0.056**	0.025	0.027

Table 6: **Impact of Buffer stock operations on dietary diversity**

HDD	Coefficient	Robust Std. Err.	z	Contribution to HHDS Differential
Differential				
Non-beneficiaries	4.46***	0.11	40.94	-
Beneficiaries	6.60***	0.20	32.81	-
Difference	-2.14***	0.23	-9.35	100%
Decomposition				
Explained	-0.57***	0.12	-4.71	27%
Unexplained	-1.57***	0.22	-7.2	73%
Adjusted R^2	0.43			

*Notes: ***, ** and * indicate significance levels at 0.01, 0.05 and 0.10% respectively.*

With the medium dietary diversity category as the base category, the results show that the NAFCO program has had a significant positive effect on the dietary diversity of the rural household. With the introduction and implementation of the policy, the farmer's participation in the program is likely to increase the probability of moving from the medium dietary category to the high category with a probability of 0.143. The results further show that income is positively and significantly associated with dietary diversity. This suggests that an increase in income is likely to move a household from a medium HDD to a high HDD. This result corroborates the finding by Taruvinga et al. (2013) in South Africa and Thiele and Weiss (2003) in Germany. For low-income households, vegetables and fruits become expensive for them to afford (Pollack, 2001). These low-income households tend to prioritise the fulfilment of their basic energy needs to protect their family from hunger. This could move those households from medium HDD to low HDD (Ruel et al., 2004).

The results also indicate a significant relationship between rural households' access to irrigation facilities (such as dams, dug out well) and HDD. The marginal effects of .0.22 and 0.095 for low and high HDD are significant at 5% and 1%, respectively. This implies that when rural households' access to irrigation facilities increases, the household is more likely to eat more diverse food. The results further imply that when access to irrigation facilities increases, dietary diversity is likely (0.069 probability) to increase. In Ghana, access to irrigation facilities promotes dry-season farming. Different vegetables which are in high demand during the dry season (lean period) are produced under irrigation. During this period, the risks of marketing challenges faced by farmers when selling their produce are minimal. This is because prices of vegetables during the lean periods are relatively high compared to the rainy season, which is often characterised by glut. As a result, farmers get a higher return on their investment with increased income. The increase in income and access to vegetables provides these households with the opportunity to have more diverse diets. Access to fertiliser is more likely to increase the farm productivity of the household and increase yields. This will make more food available to the household as well as increase their income.

The results in the upper panel of Table 6 report the mean predictions by groups (buffer stock policy on and policy off, i.e. beneficiaries and non-beneficiaries, respectively) and their difference. The mean outcome indicator (HDD score) for policy on households (beneficiaries) is estimated at 4.46 and 6.60 for the policy of households. This yielded a differential HDD gap of 2.14. The deferential represents the average increase in HDD score following the introduction of the NAFCO policy. However, this cannot be attributed solely to the buffer stock policy. In the lower panel of the decomposition output, the outcome differential is decomposed into two parts: the explained and unexplained parts. This is done to isolate the impact of the policy effect on the HDD (Jann, 2008). The first component, explained, showed that the policy contributed 27% (0.57) of the increase in HDD score of the policy on households; statistically significant at 1%. The second component, the unexplained, shows that 73% (1.75) of the difference in the HDD of the policy-on and policy-off households is due to the determinants of the HDD score. The results imply that the HDD score is not solely influenced by its determinants but also by policies and programs that are designed to affect food security among others. The results corroborate the findings of Ciaian et al. (2017) that standard economic determinants, which are often measured during surveys, are not the sole factors that influence diet diversity among households. Variations in culture, attitudes, and history of the people are also critical in the dietary diversity of households (Cavatorta et al., 2015; Ciaian et al., 2017).

CONCLUSIONS AND RECOMMENDATIONS

I analyse the effect of buffer stock activities on the dietary diversity of households. With cross-sectional data from 305 maize farmers and using dietary diversity as a proxy for food security. I used OLS regression to estimate the effect of buffer stock operations on the dietary diversity of households, as well as the Oaxaca-Blinder decomposition to estimate the impact.The findings indicate the dietary diversity gap between the policy off and on is significantly due to the participation of farmers in the buffer stock operation and not solely by the socio-economic and institutional factors. These results imply that the buffer stock policy has had a significant impact on farmers. Evidence is provided that the buffer stock operations have improved the dietary diversity score by 27%. Beyond norms and the attitudes of the people, institutions and programs could affect the dietary diversity of smallholder farmers.

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PREPARING TOMORROW'S MARKETERS: HOW AI IS RESHAPING THE MARKETING CLASSROOM

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ABSTRACT

Artificial intelligence is no longer a distant disruption — it is an everyday reality in modern marketing departments. Yet many graduates enter the workforce unprepared to work alongside the tools now driving industry decisions. The rapid rise of artificial intelligence has fundamentally altered the landscape of the marketing profession, and faculty are increasingly recognizing that preparing students for the workforce means preparing them for a world where AI is not a novelty but a necessity. This presentation examines how marketing instructors are actively exploring, experimenting with, and implementing AI-driven strategies in their classrooms to ensure that graduates enter the job market equipped with the skills, knowledge, and adaptability that modern employers demand.

The exploration of AI in marketing education is taking many forms. Some instructors are beginning with foundational awareness, introducing students to the broad ecosystem of AI tools currently shaping the industry and encouraging critical reflection on how those tools are changing the roles and responsibilities of marketing professionals. Others are diving deeper, building entire course modules around hands-on AI experimentation where students engage directly with platforms such as generative content tools and AI-powered analytics dashboards. Regardless of the entry point, the common motivation driving these efforts is a shared commitment to relevance — a recognition that a marketing degree must reflect the realities of the profession it prepares students to enter.

What makes this moment particularly compelling is that many marketing educators are themselves on a learning journey alongside their students. Unlike previous waves of technological change that unfolded gradually, AI has arrived with remarkable speed, leaving little time for curriculum committees and accreditation cycles to catch up. As a result, faculty are turning to self-directed learning, industry partnerships, professional conferences, and peer networks to build their own AI literacy while simultaneously finding ways to bring that knowledge into the classroom. This parallel process of educator and student development is creating dynamic, collaborative learning environments where curiosity is modeled from the front of the room and intellectual humility is treated as a professional virtue.

This presentation also explores the intentional design choices instructors are making as they incorporate AI into their courses. Effective integration requires more than simply assigning students to use a tool — it requires thoughtful scaffolding, clear learning objectives, and ongoing dialogue about the limitations and responsibilities that accompany AI use. Educators are developing rubrics that assess not just the output students produce with AI assistance, but the

quality of their thinking, their ability to evaluate AI-generated content critically, and their understanding of the ethical considerations that responsible AI use requires.

The workforce implications of these classroom innovations are significant. Employers are increasingly seeking marketing candidates who can navigate AI tools with confidence, interpret data-driven insights, and contribute to campaigns that blend human creativity with machine efficiency. Marketing programs that rise to meet this expectation are positioning their graduates for meaningful, competitive careers. This presentation invites attendees to reflect on where their own programs stand in this journey and share insights from their classrooms to help us all as we work to shape the next generation of AI-empowered marketing professionals.

MALWARE ANALYSIS AND DETECTION USING MACHINE LEARNING ALGORITHMS

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ABSTRACT

Cybercriminals have enhanced malware design techniques with the aim of evading detection tools. The development of stealthy malware has rendered manual heuristic examination tools ineffective. In order to protect their assets from cybercriminals, organizations must invest in detection tools that rely on machine learning techniques to identify malicious files. The study seeks to identify the machine-learning algorithms with higher malware detection performance. The study also seeks to evaluate whether factor reduction methods have an influence on malware detection accuracy of machine learning algorithms. This study's work looks at how machine-learning algorithms can be used in the field of malware analysis and detection. Traditional signature-based detection methods are becoming less reliable with increasingly rapidly spreading cyber threats and starting to be overwhelmed by potent, dynamic, and evasive malware. A machine learning solution is an alternative that addresses the problem of malicious software by using pattern recognition and anomaly detection techniques. To achieve high-accuracy malware detection through experiments, we discovered various classification models that work well for the task. Interestingly, our results demonstrate that ensemble-based methods, i.e., Random Forest and XGBoost, perform better than traditional ones in detecting morphological characteristics. This is the underlying initial basis on which automated threat detection mechanisms can help improve cybersecurity defense mechanisms. This study also discusses the influence of feature selection and dimensionality reduction techniques on the machine learning model for malware detection, identifying how they may optimize the model's performance. The research relied on an existing experimental study, and it evaluated six techniques: RF, CNN, DT, KNN, GBDT, and SVM. The study established that RF and CNN recorded the highest malware detection performance. The study also established that the feature reduction method had an influence on malware detection accuracy, with the heat map resulting in the lowest detection accuracy.

Keywords—*Machine learning, performance, detection accuracy, feature reduction, malware detection.*

IMPACT OF THE 2025 LIBERATION DAY TARIFFS ON THE U.S. TECHNOLOGY SECTOR: A TEST OF MARKET EFFICIENCY

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Dr. Frank W. Bacon, Longwood University

ABSTRACT

On April 2, 2025, President Donald Trump announced the "Liberation Day" tariff program, introducing a universal 10% tariff on all U.S. imports and additional reciprocal tariffs on 57 trading partners. The announcement generated sharp market volatility, particularly in the technology sector, which is highly dependent on global supply chains and semiconductor inputs. Therefore, the purpose of this study is to evaluate the semi-strong form of the Efficient Market Hypothesis (EMH), which claims that all publicly available information is incorporated immediately into security prices, preventing investors from consistently earning excess returns. Using the standard event study methodology widely employed in financial research, this paper examines the impact of the tariff announcement on the stock prices of 25 U.S. technology firms traded on the NASDAQ and NYSE. By analyzing historical stock price data alongside S&P 500 index returns, this study calculates holding period returns, firm-specific expected returns using market model regressions, and evaluates market reactions through Average Excess Returns (AER) and Cumulative Average Excess Returns (CAER) during the event window. Ultimately, the results indicate that no statistically significant excess returns occurred either surrounding or on the announcement date. Although CAER displays a gradual upward drift following the policy announcement, t-tests reveal no significant deviation from expected performance, indicating that any observed movements were short-lived and not predictive of systematic profit opportunities. Hence, these findings support the semi-strong form of market efficiency, suggesting that the technology sector absorbed the tariff information rapidly and without persistent mispricing. Overall, the study contributes to the broader understanding of market reactions to major policy shocks and highlights how geopolitical events may influence investor expectations without necessarily generating exploitable excess returns.

INTRODUCTION

On April 2, 2025—declared "Liberation Day" by President Donald Trump—the United States announced one of the largest tariff programs since the Smoot-Hawley Tariff Act of 1930, imposing a universal 10% tariff on all imports and additional reciprocal tariffs on 57 trading partners (Harithas et al., 2025). The announcement triggered immediate market volatility, with the S&P 500 falling 4.8% and the NASDAQ 100 declining 5.4%, reflecting the technology sector's heightened exposure due to its reliance on global supply chains and semiconductor imports (J.P. Morgan, 2025). This study examines whether the market response to the Liberation Day tariff announcement is consistent with the semi-strong form of the Efficient Market Hypothesis (EMH). Using an event study methodology, the analysis evaluates stock returns for 25 publicly traded U.S. technology firms listed on the NASDAQ and NYSE by comparing actual returns to expected market-based returns. Holding period returns (HPR), average excess returns (AER), and cumulative average excess returns (CAER) are analyzed before, during, and after the event window to assess whether prices adjusted prior to or only following the public release of the information.

LITERATURE REVIEW

The Efficient Market Hypothesis (EMH), introduced by Fama (1970), suggests that security prices fully reflect all available information. Fama (1970) further classified market efficiency into weak, semi-strong, and strong forms, each differing by the type of information incorporated into prices. The weak form holds that prices reflect all historical trading data, limiting the usefulness of technical analysis (Fama, 1965). The semi-strong form extends this to all publicly available information, implying that markets adjust rapidly to news such as earnings announcements, policy changes, or mergers. This form is most commonly tested using event studies, which examine whether new public information generates excess returns beyond expected performance (Fama et al., 1969). The strong form asserts that prices reflect both public and private information, eliminating the possibility of consistently earning excess profits. Prior research has applied EMH to macroeconomic and geopolitical events, including tariffs and policy shocks, finding that markets generally respond quickly, consistent with semi-strong efficiency, though short-term overreactions may occur (Ross et al., 2021; Bacon & Howell, 2021; Bacon & George, 2023; Bacon & Foster, 2025). Building on this literature, this study examines the response of U.S. technology firms to the 2025 Liberation Day tariff announcement to evaluate semi-strong market efficiency.

METHODOLOGY

This study examines the stock price reaction of 25 publicly traded U.S. technology firms to President Donald Trump's Liberation Day tariff announcement on April 2, 2025. The sample includes firms across the software, semiconductor, and hardware industries, providing broad sector coverage. Table 1 lists the selected firms, all classified under the S&P 500 Information Technology sector according to the Global Industry Classification Standard (GICS). The tariff announcement is defined as Day 0. Following standard event study methodology, firm-level returns were evaluated relative to the S&P 500 Index to assess semi-strong market efficiency. Daily price data were obtained from MarketWatch. The event window spans 61 trading days (Day –30 to Day +30), while a 151-day estimation period (Day –181 to Day –31) was used to estimate normal performance. Holding period returns were calculated and regressed on market returns to obtain firm-specific alphas and betas. Expected returns were then estimated using the market model, excess returns were calculated, and Average Excess Returns (AER) and Cumulative Average Excess Returns (CAER) were computed for the event window. Figures 1 and 2 present the AER and CAER results.

TABLE 1: FIRM OVERVIEW AND CORRESPONDING APLHAS AND BETAS

TICKER	FIRM NAME	ALPHA (α)	BETA (β)
NVDA	NVIDIA Corporation	-0.000299488	2.35077802
AAPL	Apple Inc.	2.52067E-05	0.750763149
MSFT	Microsoft Corporation	-0.001206804	1.009279627
AVGO	Broadcom Inc.	0.001307835	2.343654699
ORCL	Oracle Corporation	0.000822045	1.490290403
PLTR	Palantir Technologies Inc.	0.009635978	1.998118138
AMD	Advanced Micro Devices, Inc.	-0.003641195	1.590715683
IBM	International Business Machines Corporation	0.002244453	0.524452276
CSCO	Cisco Systems, Inc.	0.00167377	0.758997793
MU	Micron Technology, Inc.	-0.002071418	2.09063976
QCOM	QUALCOMM Incorporated	-0.001658399	1.540837047
DELL	Dell Technologies Inc	-0.001749297	1.994636048
INTC	Intel Corporation	-0.001888555	1.934338986
ADBE	Adobe Inc.	-0.001550826	0.847929665
INTU	Intuit Inc.	-0.001073902	0.883462219
ACN	Accenture plc	0.001315827	0.423534898
CRM	Salesforce, Inc.	0.001346292	0.910390071
NOW	ServiceNow, Inc.	0.001512278	0.912578203
CRWD	CrowdStrike Holdings, Inc.	0.00088759	1.507586329
ANET	Arista Networks, Inc.	0.00059846	2.149746275
APH	Amphenol Corporation	-0.000843113	1.682817461
LRCX	Lam Research Corporation	-0.002018768	1.773790016
AMAT	Applied Materials, Inc.	-0.002965122	1.804713359
KLAC	KLA Corporation	-0.001431069	1.736588306
TXN	Texas Instruments Incorporated	-0.000937765	0.989950641

Based on the methodology described, the following hypotheses are formulated to test semi-strong market efficiency on and around the event date:

H10: *The risk-adjusted return of the stock prices of U.S. technology firms is not significantly affected by the tariff announcement on April 2, 2025.*

H11: *The risk-adjusted return of the stock prices of U.S. technology firms is significantly affected by the tariff announcement on April 2, 2025.*

H20: *The risk-adjusted return of the stock prices of U.S. technology firms is not significantly affected by the tariff announcement during the event period surrounding April 2, 2025.*

H21: *The risk-adjusted return of the stock prices of U.S. technology firms is significantly affected by the tariff announcement during the event period surrounding April 2, 2025.*

QUANTITATIVE TESTS AND RESULTS

This study examined whether President Donald Trump's Liberation Day tariff announcement on April 2, 2025, generated excess stock price reactions among 25 U.S. technology firms. A paired t-test comparing Average Actual Returns (AAR) and Average Excess Returns (AER) over the event window (Day –30 to Day +30) revealed no statistically significant difference between the two series ($t = 0.2499$; $p = 0.8035$), indicating that actual performance closely matched expected risk-adjusted returns.

Consistent with this result, both AER and CAER were statistically insignificant during the event period, with p-values of 0.806 and 0.387, respectively. Accordingly, the null hypotheses H10 and H20 cannot be rejected, confirming that the tariff announcement did not generate abnormal returns. The AER and CAER plots reinforce these findings, showing elevated volatility around Day 0 followed by stabilization after Day +7, consistent with a brief market overreaction that quickly corrected. The administration's April 9, 2025, decision to pause the tariffs may have contributed to this stabilization.

Overall, the quantitative evidence indicates that the market incorporated the Liberation Day tariff information efficiently, with no statistically significant opportunities for excess profits during the event period.

Figure 1
TIME VS. AVERAGE EXPECTED RETURN (AER)

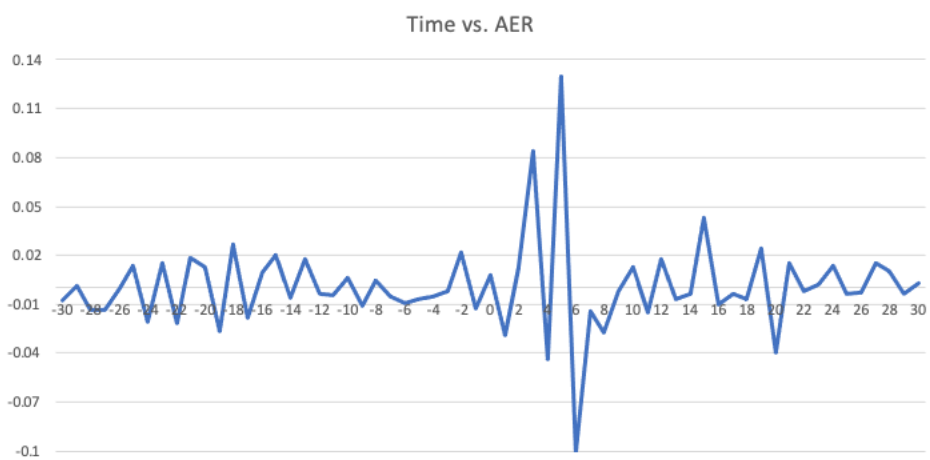
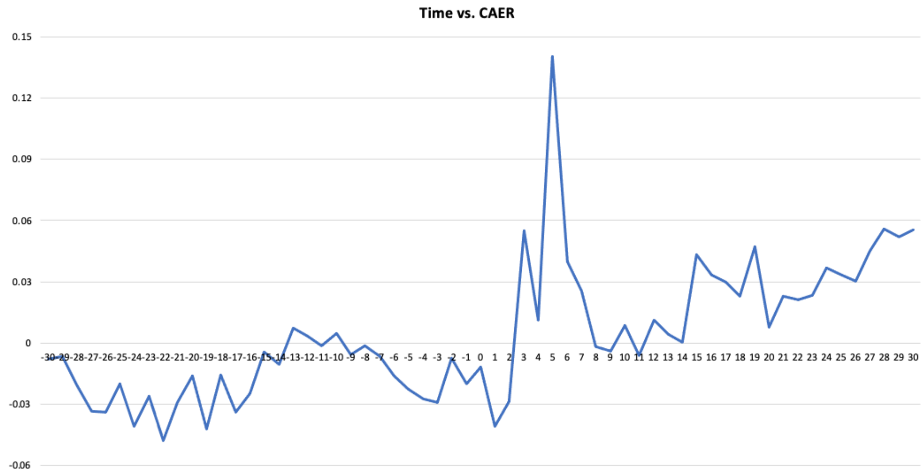


Figure 2
TIME VS. CUMULATIVE AVERAGE EXPECTED RETURN (CAER)



CONCLUSION

The analysis of the Liberation Day Tariff Announcement provides important insight into how the U.S. technology sector processes large-scale policy shocks. By examining the stock price behavior of 25 technology firms surrounding the April 2, 2025 announcement, this study tested the semi-strong form of the Efficient Market Hypothesis (EMH). The paired t-test comparing AAR and AER, along with the insignificance of both AER and CAER, showed no meaningful deviations from expected performance. Although CAER displayed an upward drift following the announcement, the lack of statistical significance indicates that these movements did not translate into excess gains for investors.

Overall, the evidence suggests that, despite short-term volatility around Day 0, the market rapidly absorbed the tariff information without creating consistent opportunities for above-normal profits. This behavior is consistent with semi-strong efficiency, which holds that publicly available macroeconomic and geopolitical information is immediately incorporated into prices, preventing investors from systematically outperforming the market based on new announcements.

For investors, policymakers, and analysts, these findings highlight the informational resilience of the technology sector during periods of heightened uncertainty. While the tariffs carried substantial economic implications, the sector's price response indicates a disciplined and forward-looking market that adjusted without signs of delayed reaction or persistent mispricing. Ultimately, this study contributes to the broader literature on event-driven market behavior, demonstrating that even large and politically salient announcements may not disrupt price efficiency within highly traded and information-rich sectors such as U.S. technology.

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EXPLORING THE IMPACT OF GENERATIVE ARTIFICIAL INTELLIGENCE ON ACADEMIC INTEGRITY IN HIGHER EDUCATION: PEDAGOGICAL, GOVERNANCE, AND OPERATIONAL DIMENSIONS

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ABSTRACT

Generative Artificial Intelligence (GenAI) systems are changing the face of higher education by reshaping how students learn, how instructors teach, and how institutions operate. Unlike traditional AI models, which focus on decision-making and analysis based on existing data, GenAI systems can generate entirely new outputs in response to a user's prompt. With their ability to personalize learning experiences, handle repetitive tasks, and broaden access to educational tools, GenAI systems generate both excitement and concern. They enhance teaching and learning by making curricula more engaging, effective, and accessible while promoting equity and inclusion. In addition, the simplicity and accessibility of GenAI resources help create more equal opportunities for students from different backgrounds. They also improve operational efficiency and help institutions scale their services through automation and data insights. Tools like OpenAI's ChatGPT, Microsoft's Copilot, and Google's Gemini offer students, instructors, staff, and administrators support that enables them to produce high-quality work more efficiently. However, if GenAI tools are overused, they could discourage students from thinking critically or putting in genuine effort. Institutions without proper support for infrastructure, training, and data management may experience uneven adoption and miss opportunities. Furthermore, inconsistent rules, careless oversight, and a reliance on surveillance-based monitoring can erode trust, reinforce bias, and compromise privacy.

This study explores the complex impact of GenAI tools on academic integrity in higher education by addressing their influence on ethics in pedagogy, governance and institutional policies, and daily operations. With an extensive literature review, the study presents a structured perspective on ethics and academic integrity in higher education, including student misuse, institutional readiness for data reliability, and the risks of inaction. In addition, this study highlights the promises and the pitfalls of GenAI tools and emphasizes that ethics should be the foundation of any strategy to promote ethical GenAI literacy, engage in inclusive policymaking, and establish adaptive regulations.

Keywords: Generative AI, academic integrity, higher education, ethics

LITERATURE REVIEW

GenAI tools offer significant pedagogical benefits by supporting tailored learning materials, adapting content to individual student needs, and improving engagement with dynamic feedback (Gamage, 2023). Tools like ChatGPT, Copilot, and Gemini facilitate academic writing and content creation by making it easier for students to organize their thoughts and write clearly and quickly (Liu et al., 2023). Intelligent tutoring systems powered by GenAI analyze learning patterns to identify struggling students and allow instructors to schedule timely interventions (Clugston, 2024). For multilingual learners, tools like QuillBot and Wordtune offer advanced paraphrasing and translation features to improve accessibility and coherence for diverse linguistic backgrounds (Avello-Sáez & Estrada-Palavecino, 2023; Bin-Nashwan, 2023). GenAI tools also help instructors in lesson planning and content development. Platforms like Kudu help streamline lesson planning by compiling educational resources from lectures and videos to save time and improve consistency. (Dutton, 2025). GenAI tools help educators build inclusive and efficient learning environments and become more responsive to the diverse student needs.

Despite their benefits, GenAI tools introduce significant pedagogical challenges and bring concerns about academic integrity. The ease of generating polished, human-like content encourages students to use these tools without hesitation (Kasneci et al., 2023). Surveys reveal that nearly one in three students use GenAI tools for assignments, and 60% rely on them for more than half of their coursework (Chan, 2023; Chan & Lee, 2023; Eke, 2023). The convenience of using them also blurs the line between legitimate assistance and misconduct and makes it difficult to determine whether an assignment was completed by a student or a model (McKinsey, 2024; Chan, 2023). This challenges the authenticity of work, complicates authorship attributions, and raises questions about plagiarism (Ali & Alhassan, 2021). While detection tools like Turnitin are designed to identify and flag AI-generated content, subtle outputs bypass the system, which limits their accuracy and complicates the instructor's efforts to ensure originality (Yeadon et al., 2023; Currie et al., 2023). Moreover, over-reliance on AI diminishes students' critical thinking and writing abilities, as automated tools easily replace independent effort (Swiecki et al., 2022). These challenges highlight the importance of pedagogical strategies that promote academic integrity and encourage real learning.

In addition to their pedagogical impacts, GenAI tools transform institutional processes by improving efficiency, scalability, and responsiveness. Automated grading and scheduling systems help reduce faculty workload and allow more time for assessment (Jani et al., 2020). Virtual assistants and intelligent tutoring technologies enhance student support, including attention-deficit/hyperactivity disorder (ADHD) assistance, by tracking engagement and offering real-time support (Gamage, 2023). Accessibility tools like Speechify and Google's Gemini convert academic materials into alternative instructional materials, such as podcasts, to better serve students with diverse learning needs (Bharadwaj, 2025). Additionally, GenAI tools enable data-driven decision-making by analyzing best practices and operational patterns to optimize resource allocation (Clugston, 2024). These systems allow institutions to scale educational delivery with high efficiency and responsiveness while maintaining quality and academic standards.

Integrating GenAI tools into various learning and operational platforms in higher education also brings operational challenges, especially when it comes to ensuring data reliability and meeting infrastructure requirements. Inaccurate or biased data produce imperfect outputs, which compromise fairness and institutional decision-making (Chirumamilla & Sindre, 2021).

Implementing and ethically using these tools requires substantial investment in technological infrastructure and adequate training, which may strain resources, particularly for underfunded institutions (EDUCAUSE, 2022). Privacy and surveillance concern further complicate adoption, as GenAI systems process sensitive information, which increases the risk of data breaches or misuse (Sullivan et al., 2023). Moreover, implementation of these tools into learning management systems requires robust IT support and ongoing maintenance that may create logistical hurdles for institutions unprepared for a large-scale implementation (Chan, 2023).

GenAI tools strengthen governance in higher education by promoting transparency and data-driven policymaking. GenAI systems help develop adaptive regulations by analyzing usage patterns and identifying areas for improvement (UNESCO, 2021b). For instance, institutions can leverage GenAI tools to monitor compliance with academic integrity policies, streamlining enforcement processes (Florida Tech, 2024). Additionally, GenAI systems facilitate stakeholder engagement by providing actionable insights that inform governance decisions and ensure alignment with ethical standards (Renda, 2020). These capabilities enhance institutional accountability and build trust in GenAI adoption in aligning governance practices with educational goals.

Governance challenges in integrating GenAI tools into higher education arise particularly around establishing effective policies to regulate their use. The rapid pace of technological changes and requirements further complicates the creation of consistent, enforceable guidelines and leaves institutions struggling to keep up (Sun & Medaglia, 2019). Biases in guidelines, if unaddressed, lead to unfair and inequitable policymaking, especially in diverse academic environments (Dexe & Franke, 2020). Data security remains a critical concern, as governance structures at higher education institutions must protect sensitive student information while complying with regulations like FERPA (U.S. Department of Education, 2023). Furthermore, the absence of standardized GenAI governance frameworks across institutions complicates coordinated efforts to maintain academic integrity (Schiff, 2022).

The use of GenAI tools in higher education brings a number of ethical challenges, especially when it comes to trust, fairness, and accountability. Their ability to generate seemingly original content makes contract cheating easier (Kerner, 2025). Students use tools like DeepSeek to cheat by turning in AI-generated work as their own, which hurts academic honesty (Ali & Alhassan, 2021; Mijwil et al., 2023). Opinions among educators are divided on this issue: some regard GenAI tools as valuable educational tools, while others perceive them as a threat to originality that creates a trust gap between educators and students (Pechenkina, 2023; D'Agostino, 2023). Ethical gaps, such as the lack of transparency and biases in GenAI-generated outputs, add another layer of concern, as they may lead to unfair evaluations. Additionally, privacy risks are significant due to the data-intensive nature of these tools (Bostrom & Yudkowsky, 2011; Federspiel et al., 2023). These ethical dilemmas highlight that the issues that arise from the implementation of GenAI tools in higher education are complex and interconnected.

Readiness for GenAI tools in higher education is still a work in progress, which presents exciting opportunities while posing significant challenges. Resistance to adoption is common, with concerns ranging from diminished critical thinking to fears of job displacement (Dana et al., 2021; Anderson, 2025). Infrastructure gaps, especially in under-resourced institutions, make large-scale implementation even harder and widen the digital divide (EDUCAUSE, 2022). Yet promising initiatives, such as workshops and open-access AI literacy modules, build awareness and skills (Atlas, 2023). To ensure GenAI integration is both equitable and effective, institutions should pair these efforts with clear policies that promote responsible practices and maintain academic integrity

UNESCO (2021a). Addressing issues like plagiarism and data fabrication requires guidelines that promote accountability, transparency, and a shared culture of integrity, while providing the education and support needed to navigate these challenges. The goal is not to resist innovation, but to guide it in a way that upholds the core values of honesty, trust, and accountability in higher education (ICAI, 2021).

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ALTERNATIVE HIGH-FREQUENCY ECONOMIC INDICATORS: A FRAMEWORK FOR MONITORING ECONOMIC ACTIVITY DURING DATA LAPSES

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ABSTRACT

Official economic statistics play a central role in assessing macroeconomic conditions, but many key indicators are released with substantial delays and can be disrupted by operational constraints, including federal government shutdowns and resource limitations within statistical agencies. When these disruptions occur, policymakers, businesses, and researchers lose access to timely signals about current economic activity. As a result, interest in alternative data sources has grown, particularly those based on high-frequency indicators that provide more immediate insight into economic conditions.

This paper develops a framework for constructing alternative monthly economic indicators using publicly available high-frequency data. We compiled a broad set of weekly and daily series—including unemployment insurance claims, business formation statistics, consumer spending, small business revenue, housing activity, dining trends, mobility measures, online job postings, and payroll transactions. Because these indicators are updated frequently, they offer near real-time visibility into economic activity and can detect shifts in economic conditions earlier than many traditional monthly government releases.

We transform these high-frequency measures into monthly series and develop methods to aggregate them into coherent composite indices. Our approach harmonizes data observed at different frequencies and applies statistical techniques for alignment, smoothing, and index construction. By integrating diverse data sources, the proposed indicators capture broad movements in economic activity while remaining interpretable and comparable with established macroeconomic statistics.

These indices are designed to complement, rather than replace, official government data. During periods when official statistics are delayed or unavailable, they can help fill critical information gaps and support real-time economic monitoring. More broadly, the framework demonstrates how systematically integrating high-frequency alternative data can improve the timeliness and resilience of economic measurement.

HR PRACTICES AND WORKFORCE OUTCOMES: EVIDENCE FROM A REPEATED EMPLOYER SURVEY (2017–2023)

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ABSTRACT

Employee turnover and absenteeism continue to challenge many organizations, particularly in industries where workforce stability directly affects productivity and operational efficiency. Employers often attribute these problems to labor market conditions or worker characteristics. However, workplace policies and management practices, especially human resource (HR) strategies, also shape workforce outcomes. Despite their importance, relatively little empirical research connects specific HR practices to turnover and absenteeism, particularly within regional economies and manufacturing-focused labor markets.

In this study, we examine how HR practices relate to workforce outcomes using employer survey data collected in four waves: 2017, 2019, 2021, and 2023. The repeated cross-sectional design allows us to track how HR practices and workforce outcomes change over time, including during and after the COVID-19 pandemic. Using detailed employer responses, we develop several HR practice indices that capture key aspects of workplace management, including employee training and development, internal communication, compensation and benefits, and employee engagement strategies.

We then use statistical models to examine how these HR practice indices relate to two key indicators of workforce stability: employee turnover and absenteeism. We expect to find that organizations with stronger and more comprehensive HR practices experience lower turnover and fewer employee absences. At the same time, we anticipate that these relationships will vary across firms, particularly by company size, suggesting that organizational resources and capacity influence how HR practices translate into workforce outcomes. We also expect to observe shifts in these relationships following the COVID-19 pandemic, reflecting broader changes in labor market conditions and evolving workplace expectations.

Overall, this study highlights the role that intentional HR strategies can play in building a stable workforce. Organizations that invest in structured HR practices, such as employee development, clear communication, and supportive workplace policies, may reduce turnover and absenteeism while strengthening long-term employee retention. These insights can help employers navigate competitive labor markets and support policymakers seeking to promote stable, productive regional workforces.

WHY WORKERS LEAVE: EMPLOYER-REPORTED DRIVERS OF TURNOVER AND ABSENTEEISM, 2017–2023

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ABSTRACT

Understanding workforce instability requires more than measuring turnover rates: it requires identifying the mechanisms that drive workers to leave or miss work. This study examines employer-reported explanations for turnover and absenteeism using repeated survey data collected between 2017 and 2023. We treat open-ended employer responses about "why workers leave" and "why absenteeism occurs" as structured qualitative data and convert these narratives into standardized cause categories through a systematic coding framework with interrater reliability checks.

We classify reported drivers into categories such as pay, benefits, workplace culture and management, scheduling constraints, and transportation barriers. Using these indicators, we estimate models that relate reported causes to observed turnover and absenteeism while controlling for firm characteristics and year effects.

We expect to document meaningful shifts in reported drivers over time, particularly around the COVID-19 labor market disruption. We also anticipate that firms citing compensation-related factors will exhibit higher turnover than those emphasizing workplace culture or management concerns, and that firms reporting multiple causes will face greater workforce instability.

By linking employer perceptions to measurable outcomes, this study provides a practical framework for identifying and addressing the drivers of workforce instability.

DO PEOPLE PERCEIVE TOXIC LEADERSHIP DIFFERENTLY CONSIDERING THEIR AGE, GENDER, ETHNICITY, AND EDUCATION LEVEL?

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ABSTRACT

This research study focused on exploring the potential differences between specific groups of people (gender, age, ethnicity, and education level) and their perception of toxic leadership. Data were collected from 283 participants and four hypotheses were tested. The important findings of the study are that statistically significant differences in toxic leadership scores exist between the following groups: (1) Ages 18-34 and Ages 45-54 (p = .014), (2) Asians and Caucasians (p = .022), (3) African Americans and Caucasians (p =. 029), (4) Some College/College Graduate and Some Graduate/Graduate Degree (p = .010), and (5) Some College/College Graduate and Post Graduate/Doctoral Degree (p = .000).

Keywords: toxic leadership, gender, age, ethnicity, education level

INTRODUCTION

Toxic leadership remains a relatively under-studied aspect of the leadership process. Much of the existing information about toxic leadership tends to focus on the relationship between toxic leadership and some other variable such as job satisfaction, turnover intention, organizational cynicism, etc.–just to name a very few. However, very little information seems to exist concerning the potential differences between categorical groups regarding toxic leader perception. As such, this research will contribute to improving this paucity of understanding concerning how certain demographic groups may differently perceive the darker side of leadership.

RESEARCH OBJECTIVE

The researchers' objective in the present study was to address the lack of substantive information concerning whether differences in groups have any bearing on how individuals within the groups perceive a toxic leader. As such, the present study is designed around one overarching question: What differences exist in toxic leadership perception based on gender, or age, or ethnicity, or education level? In order to address this research goal, the researchers collected and analyzed data from four groups: gender, age, ethnicity, and education level on their perceptions of their leader's toxicity.

TOXIC LEADERSHIP DEFINED

Toxic leadership has been described as a primarily malevolent leadership style (Bell, 2019) characterized by the leader's detrimental behaviors creating organizational conditions that are harmful, aggressive, and distressing to employees (Budak & Erdal, 2022; Magdy & Salem, 2024; Octavian, 2023). The harmful practices of toxic leadership are often categorized into five dimensions including abusive supervision, authoritarian leadership, narcissism, self-promotion, and unpredictability (Gurley, 2024; Jantjies & Botha, 2024; Lopes et al., 2025). Toxic leadership's destructive behaviors are also described as undermining the well-being of subordinates and negatively impacting organizational effectiveness (Gupta & Chawla, 2024). According to Labrague (2024), toxic leadership is linked to suboptimal employee work performance, reduced job productivity, and heightened intentions to quit–all of which are detrimental to organizational success. Toxic leadership can have a profoundly negative impact on individual employees ultimately leading to various organizational challenges (Bell, 2019). According to Gupta and Chawla (2024), employees seek healthy and productive work environments, and organizations experiencing toxic leadership tend to experience high employee attrition rates. A toxic leader can significantly impact an organization's culture leading to negative changes in employee job satisfaction, productivity, and morale (Jantjies & Botha, 2024). As noted by Octavian (2023), a toxic leader's desire to intimidate may involve the use of outgroups and scapegoats demonstrating a lack of concern for the emotional safety and stability of individual employees.

RESEARCH METHODS

The present study was focused on the potentially varying perceptions of toxic leadership among four specific groups of interest. The four specific groups of interest included gender, age, ethnicity, and education level. The following sections present the hypotheses, data collection and analysis process, and the results on the data analysis.

Hypotheses

The potential relationships between toxic leader perceptions and gender, age, ethnicity, and education level are not well documented in the literature associated with toxic leadership. The present study will contribute to filling this gap of knowledge in leadership studies. As previously stated, this study is designed to address one fundamental question: What differences exist in toxic leadership perception based on gender, or age, or ethnicity, or education level? The following hypotheses were used to address each aspect of the research question.

- **Hypothesis 1**: There is a difference in toxic leadership perception within the gender group.
- **Hypothesis 2**: There is a difference in toxic leadership perception within the age group.
- **Hypothesis 3**: There is a difference in toxic leadership perception within the ethnicity group.
- **Hypothesis 4**: There is a difference in toxic leadership perception within the education level group.

Data Collection

The population involved in this study included persons over the age of 18 located in the United States who were employed full time and who had experience with bad leadership. Data from a sample size of 283 participants were obtained through an online survey platform. Participants granted consent to take part in the study prior to completing the survey. The survey included two primary sections. First, the demographic questions related to gender (male and female), age (18-24, 25-34, 35-44, 45-54, 55-64, and 65+), ethnicity (American Indian, Asian, African American, Hispanic, Caucasian, and Multiple Ethnicity), and education level (Some HS/HS Graduate, Some College/College Graduate, Some Graduate/Graduate, and Post Graduate/Doctorate) were presented. Second, the instrument used to measure toxic leadership was presented. Bell's (2020) Toxic Leadership Scale (TSL-1) measured toxic leadership with 13 questions (Appendix A). The TSL-1 is a modified version of Schmidt's (2014) Toxic Leadership Scale (Bell, 2020). The TSL-1's alpha reliability is (a = .94) (Bell, 2020). According to Hair et al. (2009), alpha reliabilities of (a = .70) and higher are considered reliable.

Results

The data analysis procedures for the present study were focused on tests to compare independent groups. Initially, the determination of whether to use parametric or nonparametric tests to compare the groups of interest needed to be established. The Shapiro-Wilk tests indicated the assumption of normality was violated for all hypothesized variables. Therefore, two different nonparametric techniques (i.e., Mann-Whitney U test and Krushkal-Wallis H test) were chosen to test the research hypotheses. Given how gender only has two groups, the nonparametric Mann-Whitney U test was used to test if there was a difference in toxic leadership scores and gender in hypothesis 1. The nonparametric Krushkal-Wallis H test was used to test hypotheses 2-4 to determine if there were differences in toxic leadership scores between age groups, ethnicity, and education level. The analysis for each hypothesized relationship used the adjusted p-values to determine significance. For each significant relationship a post hoc test was performed to determine where the differences lay. The pairwise comparisons using Dunn's (1964) procedure with a Bonferroni correlation for multiple comparisons was utilized. Partial support for the research hypotheses was found, with three of the four hypotheses showing statistical significance.

Hypothesis 1

The results of hypothesis 1 showed there were no statistically significant differences in toxic leadership scores between males (n = 192) (Mdn = 4.08) and females (n = 91) (Mdn = 4.0), U = 7712, z= -1.66, p-value = .097. Therefore, hypothesis 1 is not supported.

Hypothesis 2

Hypothesis 2 stated there are differences between toxic leadership scores and age groups, including ages 18-34 (n = 40), 35-44 (n = 127), 45-54 (n = 82), and 55 and over (n = 35). Median toxic leadership scores were statistically significantly different between age groups, X2(3) =12.589, p=.006. Therefore, hypothesis 2 is supported. This post hoc analysis revealed statistically significant differences in toxic leadership scores between ages 18-34 (Mdn = 3.92) and 45-54 (Mdn = 4.27) (p = .014)

Hypothesis 3

A Krushkal-Wallis H test was conducted to determine if there were differences in toxic leadership scores between ethnicity groups including American Indian (*n* = 4), Asian (*n* = 20), African American (*n* = 11), Hispanic (*n* = 15), Caucasian (*n* = 232), and Multiple ethnicity (*n* = 2). Median toxic leadership scores were statistically significantly different between the ethnicity groups, X2(5) =23.714, p<.001. Thus, hypothesis 3 is supported. The post hoc analysis revealed statistically significant differences in toxic leadership scores between the ethnicity groups Asians (Mdn = 3.77) and Caucasians (Mdn = 4.15) (p=.022), and African Americans (Mdn = 3.69) and Caucasians (p = .029).

Hypothesis 4

A Krushkal-Wallis H test was conducted to determine if there were differences in toxic leadership scores between education level groups including some high school/high school (*n* = 29), some college/college degree (*n* = 92), some graduate/graduate (*n* = 118), and post graduate/doctorate (*n* = 45). Median toxic leadership scores were statistically significantly different between the education level groups, X2(3) =19.098, p<.001. Therefore, hypothesis 4 is supported. The post hoc analysis revealed statistically significant differences in toxic leadership scores between the education level groups some college/college graduate (Mdn = 3.885) and some graduate/graduate degree (Mdn = 4.15) (p = .010) and some college/college graduate and post graduate/doctoral degree (Mdn = 4.31) (p = .000).

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APPENDIX A

Bell's (2020) TLS-1: Modified Version of Schmidt's (2014) Toxic Leadership Scale (a = .94)

All items are rated on a 5-point Likert scale response format, with answers ranging between 1= "Strongly Disagree" to 5 = "Strongly Agree."

All items begin with the phrase "My current supervisor…"

1. Will only offer assistance to people who can help him/her get ahead
2. Accepts credit for successes that do not belong to him/her
3. Publicly belittles subordinates
4. Reminds subordinates of their past mistakes and failures
5. Allows his/her current mood to define the climate of the workplace
6. Expresses anger at subordinates for unknown reasons
7. Varies in his/her degree of approachability
8. Has a sense of personal entitlement
9. Thinks that he/she is more capable than others
10. Believes that he/she is an extraordinary person
11. Controls how subordinates complete their tasks
12. Does not permit subordinates to approach goals in new ways
13. Determines all decisions in the unit whether they are important or not

AI AND ORGANIZATIONAL THEORY: RETHINKING COGNITION, AGENCY AND CONTROL

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ABSTRACT

Artificial intelligence is challenging foundational assumptions in organizational theory by reshaping how cognition, agency, and control are distributed within organizations. Long-standing models built around human judgment, sensemaking, autonomy, slack, leadership, and resilience are destabilized as algorithmic systems increasingly participate in decision processes. Organizational knowing now emerges from hybrid human–machine interactions, while autonomy becomes negotiated under algorithmic management. Slack shifts from human and financial buffers to dynamic computational resources, and leadership evolves toward stewarding and legitimizing algorithmic systems. Resilience, once centered on human anticipation and improvisation, becomes a sociotechnical property combining human adaptability with algorithmic robustness. These shifts call for renewed theoretical frameworks that account for distributed agency and hybrid cognition in human–AI organizational systems.

Keywords: *Artificial Intelligence, Organizational Theory, Algorithmic Management, Hybrid Cognition, Distributed Agency*

JEL Codes: *M15, M54, D83*

ENHANCING RESUME QUALITY WITH AI FEEDBACK: EVIDENCE FROM HR PROFESSIONAL EVALUATIONS

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ABSTRACT

Artificial intelligence (AI) tools are increasingly embedded in organizational hiring processes, yet far less is known about their potential value for job seekers refining their application materials. This study examines whether resumes improved using AI-generated feedback are evaluated more favorably by human resource (HR) professionals. We collected an initial set of resumes and then asked participants to revise them based on suggestions produced by an AI tool. HR professionals subsequently evaluated both versions of each resume on clarity and organization, relevance to the target job or industry, professional tone and language, and overall effectiveness. Their qualitative comments and comparative ratings were analyzed to assess whether AI-guided revisions produced meaningful improvements. Findings offer insight into how AI tools can support applicants in presenting clearer, more targeted, and more professional resumes, while also highlighting the limitations and implications of relying on AI during the job application process.

Keywords: *Artificial Intelligence; Resume Quality; Hiring Processes; HR Evaluation; Applicant Tools; Document Revision*

JEL Codes: *J24, M51, O33*

FROM AMATEURISM TO REVENUE SHARING: THE IMPACT OF NIL ON COLLEGE ATHLETICS

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ABSTRACT

This study examines the evolving business and regulatory landscape of college athletics following the introduction of Name, Image, and Likeness (NIL) policies. Since the NCAA's 2021 policy shift and subsequent legal developments, including the 2025 House settlement, collegiate sports have begun transitioning from an amateur model to a market-driven system involving athlete compensation and potential revenue sharing. This work-in-progress outlines a proposed empirical framework using data from over 350 U.S. Division I universities (2002–2024) to analyze how NIL-related revenues may influence organizational performance, talent allocation, and competitive balance. By incorporating performance metrics such as Football Power Index (FPI) ratings and win percentages alongside financial variables, the study positions college athletics within a broader global context of commercialized sport. The research aims to contribute to discussions on governance, labor markets, and institutional strategy in rapidly evolving, quasi-professional sports industries.

Keywords: *Name, Image, and Likeness (NIL), Sports Industry Economics, Athlete Compensation, Business Regulation and Policy, Competitive Strategy*

JEL Codes: *Z20, I23, J31, L83*

MANAGING POST-TRAUMATIC STRESS DISORDER THROUGH POST-TRAUMATIC GROWTH

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ABSTRACT

Post-traumatic stress disorder (PTSD) is not new, but in the past, researchers may have used different terminology. Among military veterans, we labeled this condition as shellshock, war neurosis, or combat fatigue. However, the term was first coined in 1974, when psychologists ***Burgess and Holmstrom*** *used the moniker "Rape Trauma Syndrome" to explain PTSD (Mentalmantras.com). About that same time, the term was also picked up by the military in their diagnoses of veterans of the Vietnam War. Then, in 1980, the term was introduced through the American Psychological Association and popularized by neurologist Jean-Martin Charcot (Mentalmantras.com).*

Today, we use PTSD to not only describe wartime traumas, but also a mental health condition resulting from experiencing or witnessing significant traumatic events, as well as natural disasters, accidents, acts of terrorism, or violent personal assaults (Mentalmantras.com).

In this paper, the researchers discuss ways to manage post-traumatic stress (especially among veterans) through available treatment options, which can provide patients with better mental health.

Keywords: *post-traumatic stress disorder, post-traumatic growth, first-line treatments*

"We may not be able to control the traumatic events of life,
but we can control our response to them."
...Unknown (150 Best PTSD Quotes)

Table 1 PTSD Quick Facts

- About 80% of people with PTSD also have another mental health condition.
- Having PTSD can also put people at risk for physical health issues, relationship problems, and a reduced quality of life.
- Veterans with PTSD may also experience insomnia or trouble sleeping and are at higher risk of developing use disorder.

Source: Glodman, 2023

Saki & O'Connor (2021) noted that PTG classification primarily emphasized highly complex life events. The problematic lifespan events could be independent of hassles and life tensions. Opposingly, Post Traumatic Stress Disorder (PTSD) requires life-threatening events for the diagnosis (Blackman, 2016). The diagnosis included triggers such as combat, sexual assault, car accidents, or natural disasters. (Blackman, 2016). Consequently, trauma can be defined as any predicament that can be transformative. Trauma might confront an individual's sense of identity, presumptuous worldview, and logical reasoning.

Additionally, while researching the spectacle of PTG, Berger (2024) implied that studies incorporated various intermediations, such as theory, aid, and nurture. The research consisted of psychoeducation about trauma and diverse traditional trauma (Berger, 2024). Therapies such as prolonged exposure, cognitive processing therapy, and managing stress can be incorporated to treat PTSD. (Berger, 2024). Also, couples therapy and public-based mediation can encourage community engagement. These situations embrace peer-founded methodology and mentorship (Berger, 2024). These involvements might benefit the development of approaches to manage expressing intrusive contemplation and foster expressiveness (Berger, 2024). Moreover, releasing knowledge may be vital to establishing prospects to regroup and promote positive living. Explicitly, psychosocial meetings and interventions may be recognized as potentially increasing PTG. Psychosocial meetings provide a supportive group morale and an incentive toward positive progress. The positive progress may further an emotional release of information. Berger (2024) offered participants the opportunity to reflect on a common experience and to review modeling therapy. Model therapy can foster growth in humans.

Table 4. PTSD Treatments and Therapies

First-Line Treatments	Cognitive Behavioral Therapy Cognitive Processing Theory Prolonged Exposure
Second-line Treatments	Cognitive Theory Eye Movement Desensitization and Reprocessing Therapy Narrative Exposure Therapy (NET)
Medications	The APA suggests the following four medications for use in treating PTSD. These medications are fluoxetine, paroxetine, sertraline, and venlafaxine. Currently, only the SSRIs sertraline (Zoloft) and paroxetine (Paxil) are FDA-approved for the treatment of PTSD.

Source: Clinical Practice Guidelines for the treatment of PTSD. www.APA.org

SUMMARY AND CONCLUSION

VA healthcare is aggressively addressing PTSD with both well-established and newly developed therapies. Just as each veteran's illness differs, the successful treatment approach will differ. Treatment therapies include mindfulness and meditation, coaching and mentorship, mind-body practices such as yoga and Tai Chi, time management and boundaries, peer support groups and cognitive behavioral therapy. (

PTSD is an illness that can begin because of childhood experiences. In some instances, the child will experience additional traumas throughout adult life. Patients with Chronic PTSD can be challenging to treat as each trauma needs to be addressed. Other patients may only experience trauma as an adult, sometimes due to an accident, violent assault, or wartime experience.

Fortunately, behavioral health experts have developed a range of therapies, in addition to medications, which provide patients with a path to healing. Each stage of treatment offers the potential to improve patients' mental health. As behavioral health professionals continue to develop new therapies and pharmaceutical companies develop improved medications, hope increases for patient growth.

"Just because the past didn't turn out like you wanted it to, doesn't mean your future can't be better than you ever imagined." ...Unknown (150 Best PTSD Quotes)

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150 Best PTSD Quotes That Inspire Healing And Resilience QuoteHive. https://the quotehive.com/best-ptsd-quotes/

THE IMPACT OF PCAOB-IDENTIFIED DEFICIENCIES ON CLIENT RETENTION

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ABSTRACT

Public Company Accounting Oversight Board (PCAOB) inspection reports consistently serve as credible signals of audit quality, prompting shifts in client retention, auditor behavior, and market dynamics. Clients often respond to disclosed deficiencies (particularly GAAP-related issues) by dismissing auditors and reallocating engagements to firms with clean inspection records (Nagy, 2014; Abbot, et al., 2013; Daugherty, et al., 2011). Even among Big 4 firms, exposure to PCAOB-identified deficiencies leads to higher audit fees and increased turnover, especially for smaller clients who are more sensitive to perceived audit risks (Acito, et al. 2018). Smaller firms face heightened vulnerability; some lose clients despite charging higher fees, while others voluntarily exit the public audit market due to the cost of compliance and reputational damage (Vanstraelen, Ann, and Lei Zou 2022; Daugherty, et al. 2011; Daugherty, Brian, and Wayne Tervo 2010). These trends underscore the weight clients place on PCAOB findings when evaluating audit quality and making retention decisions.

Auditor responses to PCAOB reports play a strategic role in shaping client perceptions and retention outcomes. Firms that issue voluntary response letters, especially brief or unstructured ones, tend to retain clients despite lower subsequent audit quality, suggesting a disconnect between perceived accountability and actual performance (Saorin, Encarna, et al. 2025). Moreover, when audit committees include members with accounting expertise, auditors who dispute PCAOB findings are less likely to be dismissed, indicating that committee composition influences how inspection results are interpreted (Abbot, Lawrence, et al. 2018). Executive-level perceptions also matter. Financial leaders consistently report diminished views of audit quality following PCAOB inspections, regardless of the auditor's response. While denials do not improve perceptions, they may reduce the likelihood of switching, revealing a reputational buffer effect (Robertson, Jesse C, et al. 2014).

The effectiveness of PCAOB inspections appears to vary by firm size. Research shows that Big 4 firms demonstrate more significant improvements in audit quality following inspections compared to non–Big 4 firms, suggesting that regulatory scrutiny has a stronger impact on larger auditors (Khurana, Inder K, et al. 2020). However, smaller firms express skepticism about the value of inspections, citing increased engagement costs, limited benefits, and concerns over inspectors substituting their own judgment for that of auditors without direct client interaction (Daugherty, Brian, and Wayne Tervo, 2010). These concerns, combined with the operational

burden of compliance, contribute to a reduced interest in accepting new public audit clients and a higher likelihood of market exit.

These studies show that PCAOB inspection reports drive meaningful change — but also introduce unintended consequences, especially for smaller firms navigating reputational and regulatory pressures.

This study will examine the impact of PCAOB findings on client retention between Big 4, mid-market, and smaller firms by examining the frequency of companies' decisions to change auditors in the period(s) following PCAOB reports.

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THE NECESSITY AND EFFICAY OF FINANCIAL LITERACY IN UNIVERSITY CURRICULUM

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ABSTRACT

The financial literacy of young adults—particularly those from Generation Z and Millennials—has reached alarmingly low levels, with average scores on national assessments falling below 50% (Morgan Franklin Foundation, 2025). Despite the increasing complexity of financial systems, many college students lack the foundational knowledge to manage personal finances effectively (Bukhatwa & Yee, 2023; Gomez et al., 2023). While over half of U.S. states now mandate personal finance education at the high school level (Heubeck, 2024), retention of this knowledge is limited due to students' lack of real-world financial responsibilities at that stage (Kasman et al., 2018).

International and domestic studies have demonstrated that integrating personal finance education into university curricula significantly improves students' financial literacy, confidence, and long-term financial behaviors (Gerrans & Heaney, 2016; Gerrans, 2021; Paraboni & da Costa Jr., 2021). These interventions have shown lasting effects, even years after course completion. Furthermore, financial education has been linked to reduced bankruptcy and delinquency rates (Baulkaran, 2022), and students express a strong desire to learn, especially when courses are tailored to their needs (Smith, 2016; Gomez et al., 2023).

This study proposes to examine the current landscape of financial literacy education in Texas public universities, identifying how many institutions offer dedicated personal finance courses and assessing the perceived need for such offerings. The findings aim to inform educational policy and advocate for the integration of financial literacy into higher education to better prepare students for financial independence and long-term success.

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ENGLISH PROFICIENCY AND ACADEMIC PERFORMANCE ACROSS BUSINESS DISCLIPLINES: NONLINEAR AND HETERGENEOUS EFFECTS

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ABSTRACT

This study examines the relationship between English proficiency and academic performance among international undergraduate business students. English proficiency is quantified by using the Test of English as a Foreign Language (TOEFL) scores. Academic performance is measured using students' college grade point average (GPA). This analysis applies ordinary least squares to evaluate the effects of English proficiency on student performance while controlling for academic ability, and various demographic characteristics. In this student, academic ability is measured by ACT scores. The primary demographic factors controlled for include age, gender and ethnicity. Our study also investigates nonlinear effects, threshold effects, and heterogeneous effects across the various business majors by estimating quadratic models and interaction terms between TOEFL scores and each business major. The study suggests that academic ability is the strongest predictor of overall GPA. The TOEFL scores show a smaller independent effect but no support for nonlinear or threshold effects. The interaction models confirm that there is no statistically significant distinction in the effect of TOEFL scores across Accounting, Finance, Management, and Marketing majors. This suggests that any relationship between English proficiency and student GPA is similar across the most common business majors. Our results imply that academic ability has a stronger impact than English proficiency in forecasting academic success among international business students. These results support other studies suggesting that TOEFL scores should play a lesser role in admissions than measured student academic ability.

FINANCIAL INVESTMENT AND CORPORATE INNOVATION

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ABSTRACT

This paper examines the impact of corporate financial asset investment on firm innovation using data on non-financial publicly listed firms in China. We find that greater financial asset holdings significantly reduce both the quantity and quality of innovation, consistent with the substitution hypothesis between financial investment and R&D. The negative effect is amplified for financially constrained firms, indicating that the substitution mechanism is stronger under tighter external financing frictions. In contrast, the adverse impact weakens for firms facing higher profit uncertainty, suggesting that financial assets may serve as liquidity buffers that help stabilize R&D spending. Overall, our findings highlight the dual role of corporate financial investment as both a source of innovation crowding-out and a potential tool for liquidity management.

REGIONAL DIGITALIZATION AND INNOVATION IN EXPORTING FIRMS

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ABSTRACT

Using a comprehensive digital economy index constructed for 293 Chinese cities and firm-level panel data from 2011 to 2021, this study investigates how regional digitalization affects innovation in exporting firms. We show that a more developed digital economy significantly enhances both internal and collaborative innovation. This effect operates through two primary channels: the alleviation of financing constraints and the agglomeration of human capital. Among these, human capital plays a more dominant role, particularly in promoting collaborative innovation, while the relaxation of financing constraints is relatively more important for supporting firms' internal R&D activities. The effect is stronger for state-owned and large enterprises, and its form varies across industries, stimulating internal innovation in regulated sectors while fostering collaborative innovation in the ICT industry. These findings suggest that policies aimed at strengthening human capital accumulation, alongside expanding digital financial services, are critical for leveraging the digital economy to enhance the innovative capacity of exporting firms.

FROM CLASSROOM SUPPORT TO CAREER READINESS: RETHINKING ACCOMMODATIONS IN BUSINESS EDUCATION

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ABSTRACT

The expansion of academic accommodation in higher education has improved access for students with disabilities but has also created tensions between inclusive practice and workforce preparation. From 2004 to 2020, the percentage of college students with disabilities nearly doubled, primarily due to mental health issues and attention deficit, with 20.5% of undergraduate students and 10.7% of graduate students reporting a disability in 2020. Although only about one-third of college students with disabilities report their disabilities to their university, the increasing demand for disability accommodation has required professional program faculty to navigate a rapidly evolving landscape in which the scope, complexity, and frequency of requests are expanding. While provision of these supports is rooted in equity and access, their implementation can present an unintended consequence: a growing disconnect between the realities of higher education and the expectations of the workplace.

This tension is especially visible in business education, where 16.3% of undergraduate and 8.4% of graduate students report disabilities that may affect preparation for careers requiring not only technical competence but also the ability to meet deadlines, collaborate effectively, communicate in real time, and perform under pressure. In postsecondary settings, accommodations such as extended deadlines, alternative assessments, and note-taking assistance are typically proactive and institution-driven. In contrast, workplace accommodations under the Americans with Disabilities Act are reactive, initiated only after employees disclose a disability and engage in an interactive process with employers. For business graduates accustomed to extensive academic support, this divergence may foster unrealistic expectations about professional environments.

Beginning with an examination of the growing misalignment between postsecondary accommodation practices and workplace realities facing business graduates, we draw on Social Cognitive Career Theory, Schlossberg's Transition Theory, and inclusive pedagogy to propose a discipline-specific conceptual framework for developing accommodations. Integrating a discipline-specific gap analysis and examination of faculty workload and policy alignment, the

structured readiness framework preserves academic rigor while advancing inclusion and workforce preparedness.

ORGANIZATIONAL SAFETY SIGNALING IN PROFESSIONAL SERVICES: IMPLICATIONS FOR DUAL-ROLE FRONTLINE EMPLOYEES AND VALUE CO-CREATION

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ABSTRACT

In service organizations, frontline employees (FLEs) co-create value with customers such that a successful service interaction depends on collaborative engagement from both. While customers demonstrating supportive, cooperative behaviors allow FLEs to provide higher service quality and engage in prosocial behaviors, customer-originated interpersonal threats such as aggression and intimidation hinder prosocial behavior and diminish FLE performance. Shaped by internal policies, structures and processes, organizational response to such threats signals safety, positively or negatively impacting trust, perceived organizational support (POS) and psychological safety for FLEs. Destructive customer actions have substantial effects on the degree to which an FLE's emotional engagement impacts service innovation, indicating organizational support is necessary to offset the cognitive and performance costs of customer threats.

The impact of customer incivility is particularly impactful for dual-role FLEs (FLEs who both deliver value to the customer and evaluate/regulate/enforce standards on the same customer) operating in professional services involving prolonged relational exchange, mandatory co-production, formal evaluative authority over customers, and the potential for customer-induced reputational damage at both the organizational and personal levels (e.g.; physicians, financial advisors, college professors, legal advisors). In these service environments, customer-initiated threats influence not just a single relational moment, but a longer-term relationship requiring not only repetitive engagement but repetitive value co-creation. While the dual-role FLE has a degree of authority over the customer, the customer possesses authority to generate internal and external complaints influencing the FLEs and/or the organization's reputation.

Drawing on service-dominant logic, internal marketing, and servicescape theory, this conceptual paper examines how failures in internal safety signaling undermine POS and psychological safety among dual-role FLEs, creating negative implications for value co-creation. Using higher education as an illustrative context characterized by distributed safety governance across Human Resources, Student Affairs, and academic leadership, we theorize how fragmented or ambiguous organizational responses reduce perceived organizational support and psychological safety, prompting FLEs (faculty) to adapt through defensive service standardization.

TEMPORAL MISALIGNMENT AND DECISION FRICTION UNDER COMPLIANCE PRESSURE

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ABSTRACT

This study examines how legal role enactment shapes managerial decision-making under compliance pressure, focusing on decision friction produced by temporal misalignment. Drawing on qualitative interviews with 27 legal professionals and 21 senior managers, the analysis identifies three recurring role configurations—defensive compliance, gatekeeping, and enabling—distinguished by timing of involvement and framing of legal risk. Defensive compliance involves late-stage intervention and compresses decision space; gatekeeping stabilizes decisions through conditional thresholds; enabling integrates legal expertise early and structures viable options. The findings demonstrate that decision friction arises not primarily from legal stringency but from misalignment between enacted legal roles and managerial expectations. When legal expertise is introduced early, compliance functions as a design parameter; when introduced late, it compresses choice. The study conceptualizes compliance as a co-produced decision architecture and foregrounds legal professionals as decision actors shaping managerial flexibility and perceived decision quality.

INTRODUCTION

Managerial decisions increasingly unfold under regulatory scrutiny and legal uncertainty. Compliance is often portrayed as a constraint that slows or limits strategic action. However, legal requirements do not operate automatically; they are interpreted and enacted by professionals whose timing and positioning shape decision processes.

This study argues that compliance generates decision friction not simply because rules are restrictive, but because of temporal misalignment between lawyers' enacted roles and managerial expectations regarding when and how legal expertise should contribute.

LITERATURE

Managerial decision-making unfolds under uncertainty and accountability demands. Research shows that when scrutiny is anticipated, managers prioritise defensibility alongside performance outcomes (Eisenhardt, 1989; Schillemans et al., 2021). Advice effectiveness depends not only on content but on timing and framing (Kotzian et al., 2025). Early input can shape alternatives; late input often narrows already-formed choices.

Risk perception research further demonstrates that framing influences decision behaviour (Kahneman & Tversky, 1979; Sitkin & Pablo, 1992). Yet legal professionals are rarely theorised as central decision actors, despite their direct impact on perceptions of exposure and legitimacy. Compliance scholarship increasingly conceptualises compliance as organisational practice rather than binary rule adherence (Parker & Nielsen, 2011; Power, 2007). Regulatory requirements are translated into internal governance processes that shape what is perceived as permissible or defensible (Edelman, 2016).

Recent research highlights how compliance becomes institutionalised through organisational systems (Schrödter, 2024). However, the professionals who mediate these systems remain under-theorised (Li, 2022; Johnson & Hargadon, 2023). Legal professionals occupy a central mediating role between regulation and managerial discretion.

Professional roles are enacted through interaction and boundary work (Abbott, 1988; Bucher et al., 2021). Authority depends on framing and relational positioning (Bechky & Okhuysen, 2022). In regulated environments, legal professionals face dual expectations: protection and collaboration (Nelson & Nielsen, 2000). Role misalignment between enacted roles and stakeholder expectations generates friction (Ashforth et al., 2000). While boundary work scholarship has explored role emergence, it rarely traces decision consequences.

METHODOLOGY

The study adopts a qualitative interpretive design. Semi-structured interviews were conducted with 27 legal professionals and 21 senior managers directly involved in strategic decisions under regulatory pressure. Interviews focused on timing of legal involvement, framing of risk, and perceived effects on decision processes. Data were analyzed inductively using iterative coding procedures. Patterns crystallized around timing, authority framing, and decision effects, leading to identification of three role configurations: defensive compliance, gatekeeping, and enabling.

FINDINGS

The findings show that compliance does not merely influence managerial decision-making; it actively restructures it. Crucially, this restructuring does not stem from legal stringency alone, but from how legal expertise is temporally positioned and interactionally enacted within decision processes. Across interviews, three recurring configurations of legal role enactment emerged—defensive compliance, gatekeeping, and enabling. However, the core theoretical insight is that decision friction is structurally produced by temporal misalignment between lawyers and managers. Compliance, therefore, operates not as an external constraint but as a variable decision architecture whose effects depend on role configuration and timing (See Table 1).

Table 1. Role Configurations, Temporal Positioning, and Decision Effects Under Compliance Pressure

Role Configuration	Temporal Positioning of Legal Expertise	Framing of Legal Risk	Effect on Decision Space	Perceived Decision Outcome
Defensive Compliance	Late-stage involvement (after strategic intent forms)	Absolute, prohibitive	Compresses and forecloses alternatives	Legally safe but strategically constrained
Gatekeeping	Mid-stage involvement (prior to authorisation)	Conditional, threshold-based	Stabilises within predefined limits	Procedurally compliant but conservative
Enabling	Early-stage involvement (problem definition & option generation)	Variable, scenario-based	Structures and expands viable options	More robust and defensible decisions

Note: The configurations are analytically derived from qualitative interviews (n = 27 lawyers; n = 21 managers). They represent recurring patterns of role enactment rather than fixed professional types. Temporal misalignment occurs when enacted role configuration does not correspond to managerial expectations regarding stage of involvement.

Defensive compliance represents a configuration in which legal expertise enters after strategic intent has already formed. In this structure, legal risk is framed as absolute and prohibitive. The decision architecture becomes restrictive rather than generative.

Gatekeeping represents a mid-stage configuration in which legal expertise regulates access to decision execution through conditional thresholds. Risk is framed as rule-based and benchmark-oriented rather than absolute. Managers described these decisions as compliant but conservative. Innovation was secondary to approval. Legal expertise influenced whether decisions moved forward, but rarely reshaped how they were constructed. Enabling reflects early and interactional integration of legal expertise during problem definition and option generation. Legal risk is framed as a variable to be managed rather than eliminated.

Legal considerations shape alternatives before commitment forms. Decision space is not compressed but structured. Managers consistently associated enabling with higher perceived decision quality. While early engagement sometimes extended deliberation, it produced decisions that were more robust and defensible. Legal and managerial actors co-constructed the architecture of choice. Enabling therefore represents not leniency, but redistribution of responsibility through early integration.

While the three configurations differ structurally, the decisive finding concerns what happens when enacted roles and managerial expectations become temporally misaligned.

Decision friction emerged most clearly when legal expertise entered after strategic commitment had solidified. In such cases, even advice intended to clarify or protect was interpreted as veto-like. Friction manifested in three patterned effects. It compressed the perceived decision space, as alternatives were experienced as foreclosed. It encouraged strategic de-escalation, privileging legally safe but commercially weaker options. It also reshaped professional perceptions, reframing lawyers as blockers rather than collaborators.

These effects were not rooted in substantive disagreement over law. They arose from mismatched assumptions about when legal expertise should intervene. Legal participants frequently described shifting between configurations depending on contextual triggers. Regulatory ambiguity produced defensive postures. Time pressure shifted roles toward gatekeeping. Early strategic planning enabled collaborative framing.

DISCUSSION

This study set out to move beyond the dominant portrayal of compliance as a static legal constraint. The findings indicate that compliance does not uniformly restrict managerial action; rather, its effects are mediated through how legal expertise is positioned and enacted within decision processes. Legal rules do not automatically narrow or expand decision space. Instead, they become consequential through the timing and interactional framing of legal involvement. The identification of defensive compliance, gatekeeping, and enabling demonstrates that compliance pressures translate into structurally different decision outcomes depending on role configuration. Defensive compliance forecloses options once managerial intent has formed. Gatekeeping regulates access through conditional thresholds. Enabling integrates legal considerations into option construction at earlier stages. These configurations show that compliance effects emerge through enacted roles rather than through regulatory content alone.

This perspective reframes compliance not as an overlay imposed on managerial discretion but as a processually enacted structuring of choice. By shifting attention from formal systems to role enactment, the analysis explains why similar regulatory conditions can generate markedly different decision experiences across contexts.The findings conceptualize compliance as a variable decision architecture co-produced through professional interaction. Temporal positioning determines whether compliance expands or compresses managerial choice. Role misalignment, rather than legal stringency alone, explains perceived friction under regulatory pressure. The study bridges decision-making, compliance, and professional role literatures by demonstrating how enacted expertise structures organizational choice.

CONCLUSION

This study demonstrates that compliance pressures do not inherently restrict managerial decision-making. Instead, compliance operates as a co-produced decision architecture enacted through professional role positioning. Defensive compliance, gatekeeping, and enabling represent distinct configurations through which legal expertise structures decision space.

The central insight is that decision friction arises from temporal and interactional misalignment between lawyers and managers rather than from legal rules alone. When legal expertise is integrated early, compliance can expand rather than compress decision space. When introduced late, even supportive advice is experienced as constraining.

By shifting attention from rules to roles, the study offers a processual explanation of how compliance shapes decision outcomes in practice. Future research may extend this perspective through longitudinal or observational designs that directly trace lawyer–manager interaction over time.

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THE USE OF GENERATIVE ARTIFICIAL INTELLIGENCE (AI) IN HIGHER EDUCATION: ETHICAL OR NOT?

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CASE DESCRIPTION

The focus of this case study is on strategic decision-making and applying business ethics to the use of generative AI in the higher education environment. While this case leverages technical information, it applies to many functional areas, including business, information technology, engineering, law, strategic management, and non-profit organizations. While there are many potential outcomes to consider, the purpose of the case is to complete an analysis of the information presented and tackle the ethical problems the case narrative poses. The target audience should have the ability to weigh the risks and benefits of a decision, logically arrive at a recommendation, and support the ethical decision-making practices they used to arrive at said recommendation. This case study is suitable for undergraduate and graduate courses in the functional areas outlined above. It has been reviewed in an upper-year undergraduate and graduate course in business administration, with a focus on ethics in management and strategic decision-making.

CASE SYNOPSIS

The significant advancement of generative artificial intelligence (AI) in multiple industries has altered the environment in which individuals work and learn, including higher education. The rise in popularity of ChatGPT by OpenAI, alongside other generative AI text and image generators, has shaken the world of academia and they are faced with the decision of whether to adopt or resist using such tools in the academic, research, and administrative spaces.

In October 2023, Western University (Western) appointed Mark Daley as the first-ever Chief AI Officer at a Canadian university, stepping into a new innovative role in higher education (Hurley, 2023). As Daley assumes his new role, a core part of the consultations he needs to undertake focuses on examining the ethical use of generative AI tools to determine the guidelines needed to recommend or not recommend these tools for use at Western. It will be imperative for Daley to consider the impact on students, faculty, and staff as well as understand the benefits and risks of utilizing tools such as ChatGPT in a university landscape. Additionally, Daley needs to consider what other higher education institutions are doing in their approach to generative AI and understand how other institution's decisions will impact his approach. This is a decisive moment not only for Western but for the higher education industry as a whole in regards to the use of generative AI. These decisions will have long-term implications for the use of this type of technology in traditional academic scenarios.

INTRODUCTION

The evolution of artificial intelligence (AI) has rapidly changed various industries over the past few years, including the landscape of higher education. With the launch of ChatGPT by OpenAI, and other AI text and image generators, the world of academia is faced with decisions, and the expectation to provide guidance around, how these tools can or should be used by students, faculty, and staff. There are many considerations to analyze in this case study, specifically whether higher education should adopt or resist the use of generative AI in the classroom, research, and administrative settings. The question of whether it is ethical to use AI to assist learning and coursework is a key question on the table. This is a question that Mark Daley, the newly appointed Chief AI Officer at Western University (Western), must consider as he ponders his next steps. The use of technology in higher education in general has been slow to evolve in the bureaucratic and traditional landscape. However, higher education institutions have the opportunity to set boundaries and guidelines quickly to responsibly outline the situations in which generative AI can be used. The complexities around the definition of ethical use of AI for students, instructors, and institutions are also important to explore and understand. As Daley begins his new AI-focused role at Western, he is faced with a decision of how to steer the institution in the face of exceptional digital transformation. In this case, we will review a variety of viewpoints and institutional perspectives on the use of AI to complete analysis and determine recommendations for next steps.

BACKGROUND

In the days and weeks after the launch of ChatGPT on November 30, 2022 (ZDNET, 2023), it was the primary focus of conversations at higher education institutions across the globe, including the Canadian higher education ecosystem. These conversations were both in excitement about this technology's new possibilities and fear of what changes it would bring to education. ChatGPT can be defined as "an artificial intelligence (AI) chatbot built on top of OpenAI's foundational large language models (LLMs) like GPT-4 and its predecessors" (Marr, 2023). ChatGPT can respond to questions intelligently and provide advice on almost any topic while also being able to assist with writing code and supplementing many administrative tasks. Students can use ChatGPT and other generative AI tools to assist in organizing academic papers, crafting thesis statements, preparing presentations, helping with homework, and enhancing their overall writing abilities. An example of ChatGPT in use for student purposes is available in *Exhibit 1*. In the days following the chatbot's launch, it went viral instantly and garnered millions of users as people were fascinated with the tool's ability to learn from interactions with the human language. Higher education leaders have had much to consider and digest with the launch of ChatGPT and the impact it will have on academic misconduct, or cheating, and standard education practices. Academia is faced with the question of whether to adapt, adopt, or resist these types of AI text generators in consideration of whether the technology would be used unethically in the higher education learning environment (Mucharraz y Cano et al., 2023).

At Western University, Luke Stark, a professor at Western's faculty of media and information studies, shared with CBC in January 2023 that "[n]ot just professors, but university administrators and deans — all those folks are very aware of cheating with AI, and they're very concerned about it" (Dubinski, 2023). *Exhibit 2* highlights Dr. Stark's and other individuals' perspectives of ChatGPT since it became available to the public. In the past few years, due to the COVID-19 pandemic and the shift to online learning, universities have noticed a rise in academic misconduct cases and the appearance of ChatGPT caused further concern for many educators. There is apprehension that the tool will continue to increase plagiarism and lead to a decrease in critical thinking development in students. At Western for example, 430 instances of academic offences were recorded in 2021-2022, which is almost double the number the year before (Dubinski, 2023). This was not only unique to Western but also prevalent in other universities and colleges across the sector. Mark Daley, the Chief Digital Information Officer at Western University, underlined the predicament that universities were in with the launch of ChatGPT as well. In an insightful interview with the Toronto Star, Daley highlighted that he is sympathetic to educational institutions that are trying to understand and navigate the usage of this new technology while highlighting the fact that he believes those deciding to ban ChatGPT, and similar technologies, will ultimately be on the wrong side of history (Hurley, 2023).

From a student perspective, Western University student Firas Kayssi began exploring ChatGPT and quickly discovered that the tool could review his engineering paper, which had taken weeks to complete, and instantaneously create the developer code related to the paper. While Kayssi was in “awe” (Hurley, 2023), he quickly shared his thoughts about the challenge this posed to the integrity of academia and reached out to his professors to see if they were aware of ChatGPT (Hurley, 2023). The considerations of the positive and negative aspects of tools such as ChatGPT, and what is ethical in the world of academia, will be key as institutions such as Western grapple with their next steps and decisions.

Recently, in October 2023, Western appointed Daley as the first-ever Chief AI Officer at a Canadian university. As part of the announcement of his new ground-breaking role, Daley shared that he “expects to educate and advocate for the ethical use of the technology, but he will first start by listening to students, staff and faculty about their aspirations and concerns” (Hurley, 2023). This will be a challenge indeed as a wide variety of opinions exist on the spectrum of embracing to restricting generative AI tools. As Daley embarks on his new role, the analysis of how tools like ChatGPT can be used ethically and what guidelines or frameworks are needed to help with this process will likely be a focus of his consultations. He highlights that humans have a great opportunity right now to make good decisions that will enable to positive use of this technology now and in the future (Hurley, 2023). The emphasis on business and technology ethics as part of the discussion asks the tough questions of whether or not it is ethical for students to use ChatGPT as part of creating their assignments as well as whether or not it is ethical for instructors to use ChatGPT as part of grading submitted work. Daley, Western, and other universities have their work cut out for them in considering a multitude of scenarios as part of their analysis of the use of generative AI.

CHATGPT IN HIGHER EDUCATION

Generative AI Opportunities for Students

As Daley considers his next steps, he must be aware of the various opportunities that generative AI tools, such as ChatGPT, can offer across the higher education sector for students, faculty, and staff. These benefits are a significant drift from the traditional world of academia but provide useful efficiencies for the future of learning. Historically, universities had a core purpose to provide excellence in advancing learning and knowledge, supporting students in achieving a university degree. Increasingly universities are expected to prepare students for their future jobs and professional roles, not only by learning and obtaining a degree but through leveraging continuous loops of learning (learning how to learn, applying information, adjusting, and learning some more) (Chamorro-Premuzic & Frankiewicz, 2019).

ChatGPT has begun to be used in professional settings, such as in finance, IT, and student support services at universities, helping individuals conduct research on a variety of topics, analyze vast amounts of data in seconds, and use it for scheduling tasks and time management (Zinkula & Mok). The adoption of ChatGPT in higher education can help students gain familiarity with the tool, how it operates, and how it could be used in their future professional roles, which depending on the job, might be an expectation. As students progressively prepare for their careers, generative AI tools are shaping the future of work indicating that it would be to students' benefit to learn how they work (Bannon, 2023). An additional benefit to using generative AI in higher education is that it not only provides an opportunity to teach students about its ethical use but also provides a valuable learning experience in discussing business ethics for their future careers.

ChatGPT can assist students in improving their writing skills, offering students personalized tutoring, providing individualized feedback to students regarding their learning needs as well as assisting international students with language translation, making educational materials more accessible to the student population (Baidoo-Anu & Owusu Ansah, 2023). Generative AI tools can also support the student experience through supplemental tools such as self-service chatbots, flagging at-risk behaviour for faculty and staff, and helping with predictive modelling for student performance (Abdous, 2023). These tools can help ensure that higher education institutions are making every effort to support students in their educational journey.

Generative AI Opportunities for Instructors and Researchers

ChatGPT offers many potential opportunities to instructors and researchers within the higher education environment as well. It can act as an assistant, helping instructors create assignment guidelines, build grading rubrics, and assist with grading, as well as compile frequently asked questions with thorough explanations (University of Pittsburgh, 2023). By leveraging ChatGPT instructors will benefit from a solution that can help them manage their teaching workload and administrative tasks to allow them more time to focus on creating innovative lectures and learning deliverables. Inside Higher Ed, a news outlet for the higher education community, outlines that ChatGPT can support researchers to "sift through large data sets to identify patterns, build models, recommend relevant articles and prepare manuscripts for publication" (Abdous, 2023). This support has the potential to be transformative for researchers by accelerating the assistance they receive and the timely delivery of their research.

Generative AI Opportunities for Staff

As a university administrator or member of staff, the type of assistance that generative AI tools, including ChatGPT, offer is focused on attaining process efficiency. If an individual works in IT for example, they could leverage ChatGPT to write code in various programming languages to instruct a computer to perform specific tasks quickly for a specific business purpose simply by describing the problem at hand. ChatGPT would respond by providing accurate code that the developer could begin updating and incorporating into their work *(Exhibit 4)*. The generative AI tool can also assist administrators with drafting email replies, writing high-level documentation for processes, or providing recommendations on how to respond to a difficult business situation or conflict (Mucharraz y Cano et al., 2023). Tools like ChatGPT could also assist staff, and faculty, with clearly outlining responsibilities and tasks completed as part of performance reviews, elevating communication between employees and their superiors. These applications outline the potential benefits of utilizing ChatGPT in the higher education environment that Daley will need to consider in his role as Chief AI Officer.

Risks of Generative AI

While exploring opportunities to use generative AI tools, it is equally important for Daley, along with other faculty, staff, and students, to assess whether the associated risks are justified by the potential rewards. Faculty, staff, and students alike have expressed concerns related to the use of ChatGPT and other similar generative AI tools. A recent BestColleges survey, conducted in 2023, of a thousand undergraduate and graduate students indicated that over half of students believe that using AI tools to complete academic work is in fact cheating (Nietzel, 2023). *Exhibit 5* illustrates the results of the surveyed students' beliefs about AI and ethics. Plagiarism and cheating are the leading concerns within the higher education landscape when it comes to the use of ChatGPT (Nguyen, 2023). Faculty and administrators are fearful that using generative AI to produce or assist with written academic work - such as papers, essays, and exams, is unethical student behaviour and does not promote ethical research practices in using reliable sources of information (Mucharraz y Cano et al., 2023). Concerns around students' ability to develop critical-thinking skills with the rise of AI tools is also prevalent. Under this apprehension remains a layer of fear of what this means for traditional learning models that higher education institutions apply and how this could impact a university's credibility in the future.

Generative AI tools are not perfect – it is a newly released technology that is actively learning as it goes and improving with use. Inherent within these tools are biases, constraints, and inaccuracies when formulating responses to specific prompts. Such issues have the potential to considerably impact the learning process by perpetuating negative stereotypes and distributing general misinformation (Mucharraz y Cano et al., 2023). As generative AI, including ChatGPT, relies on training data, the data it is trained on may hold implicit or explicit bias, potentially leading to discrimination against certain demographics, such as minorities and women (Silberg & Manyika, 2019). This misinformation and bias could continue to promote prevailing societal inequities in higher education and not promote equal opportunities for all, a risk of using this technology.

An example of this bias is evident in the research conducted by Joy Buolamwini and Timnit Gebru, who "…found error rates in facial analysis technologies differed by race and gender. In the "CEO image search," only 11 percent of the top image results for 'CEO' showed women, whereas women were 27 percent of US CEOs at the time" (Silberg & Manyika, 2019). There is also evidence that AI can be discriminatory based on race. Julia Angwin and her colleagues at ProPublica have demonstrated that COMPAS, employed for forecasting re-offence in Florida, exhibited a disproportionately higher rate of incorrectly labelling African-American defendants as "high-risk," nearly twice as often as it mislabeled white defendants (Silberg & Manyika, 2019). The majority of Canadian higher education institutions are committed to equity, diversity, and inclusion and the risk of utilizing technology that has proven bias, or is known to communicate misinformation, would reflect poorly on their stated commitments and brand reputation.

The rise of the use of ChatGPT has been directly associated with a rise in the risk to data privacy and protection when using the tool (Nguyen, 2023). Universities have concrete data security and privacy policies and procedures to protect the use of sensitive data that is used during business and research activities. The use of generative AI at a university may require sharing sensitive or confidential student or employee information with the tool to facilitate analysis, such as sharing a student's grades or patterns of attending class to determine if a student is at risk in proceeding to the next term (Nguyen, 2023). Institutions must recognize the importance of obtaining explicit consent for the use of data in generative AI solutions. The purpose of data utilization within these solutions should be clearly defined in advance, ensuring compliance with the university's data privacy policies and relevant legislation governing government bodies. This is an inherent risk of using ChatGPT within the higher university sphere.

One of the risks of using and relying on ChatGPT's answers is that, to put it simply, it is at times inaccurate in the responses it provides. This is referred to as 'hallucinating', a concept commercialized by Google AI researchers in 2018 that "…refers to mistakes in the generated text that are semantically or syntactically plausible but are in fact incorrect or nonsensical. In short, you can't trust what the machine is telling you" (Smith, 2023). These errors in information could have serious consequences in instances where users are completely trusting the information provided.

NORMALIZATION OR EXPLOITATION? PROMOTING CANNABIS TO VULNERABLE POPULATIONS

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Prescott C. Ensign, Wilfrid Laurier University

ABSTRACT

Should cannabis retailers be allowed to use advertising methods that aimed to normalize cannabis use and minimize its potential harms? Cannabis retail stores in Canada targeted their advertising efforts in areas and to groups with higher rates of addiction, including marginalized communities, low-income neighborhoods, adolescents, college and university campuses, and individuals with mental health conditions. Cannabis stores setting their sights on vulnerable communities was concerning: were such tactics contributing to public health issues such as mental health challenges and increasing addiction rates?

This case study explores the legal retailing of recreational cannabis. In 2018, Canada introduced a new era of regulation and marketing challenges. The Cannabis Act was established to regulate production, distribution, and promotion, aiming to minimize harm, particularly among youth. Despite these safeguards, concerns have risen over marketing practices that appear to exploit loopholes, such as using flashy packaging and playful product names, which downplay potential health risks and appeal to younger demographics. These practices challenge compliance with the Cannabis Act's advertising restrictions.

Complicating the situation, Canadian dispensaries operate under varying business models ranging from government-controlled stores to private enterprises, often blurring accountability for advertising practices. The proximity of dispensaries to college and university campuses and targeted promotions, such as student discounts, disproportionately affect vulnerable groups like those under age 25, whose brains are still developing, increasing the risks of cannabis dependency and adverse health outcomes.

RIDING THE ECONOMIC WAVE: HOW GROWTH AND FUEL PRICES DRIVE CARGO TRANSPORTATION DEMAND

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Scott Ertekin, Brenau University

ABSTRACT

This study examines the dynamic relationships between revenue ton-miles (RTM), gross domestic product (GDP), and gas prices using time-series econometric techniques. The Augmented Dickey-Fuller (ADF) test was employed to assess the stationarity of the variables, revealing the presence of unit roots and indicating non-stationarity. The Johansen cointegration test confirmed the existence of a long-term equilibrium relationship among RTM, GDP, and gas prices. To capture both short-term fluctuations and long-run dynamics, a Vector Error Correction Model (VECM) was utilized, demonstrating that GDP has a strong positive impact on RTM, while gas prices exert a significant negative influence. Policy implications emphasize the need for strategic investment in transportation infrastructure, energy price stabilization, and supply chain resilience to mitigate economic volatility and enhance sectoral sustainability. These findings provide valuable insights for policymakers and industry stakeholders in optimizing economic and transportation policies to ensure long-term stability and efficiency.

***Keywords**: Time-series, cointegration, VECM, economic growth, fuel prices, transportation demand*

ARE ECONOMIC PERFORMANCE INDICATORS ASSOCIATED WITH FIRMS CLAIMING GOODWILL IMPAIRMENT WRITE-OFFS OVER CHANGING ECONOMIC CIRCUMSTANCES?

Joseph Faello, Wayne State College (Retired)

ABSTRACT

Prior academic research into the accounting for goodwill impairment write-offs do not separately identify the unique periods during which economic conditions can change. This study examines the 2006 to 2010 period from the perspective of two distinct periods of economic prosperity (2006 to 2007) and economic decline (2008 to 2010). The results are twofold. First, operating earnings inclusive of goodwill impairment write-offs provide additional power in explaining one period ahead operating cash flows, especially during the period of economic decline. Second, both of the economic performance indicator variables (i.e., change in the firm's operating cash flows and the ratio of the firm's market to book values of equity) are significantly associated with the likelihood of recording a goodwill impairment write-off, but only during the period of economic decline. Overall, these results support the informativeness of goodwill accounting during the period of economic decline.

Keywords: *Goodwill Accounting; Impairment; Earnings Management*

CHRONOLOGICAL COINCIDENCE OF FASB'S ASU 2023-08,1099-DA, WEALTH TAX PROPOSAL HASTENED BITCOIN SELLOFF?

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John Tan, California State University East Bay

ABSTRACT

This paper examines whether a cluster of regulatory, tax, and accounting developments—FASB's ASU 2023-08, the IRS broker reporting requirement on Form 1099-DA, and proposed wealth taxes such as California's 2026 Billionaire Tax Act—may have contributed to Bitcoin's decline from a peak of $126,000 on October 6, 2025, to roughly $67,500 by mid-February 2026. Under Treasury and IRS rules, brokers must report customer dispositions of digital assets occurring on or after January 1, 2025, with Form 1099-DA reporting beginning in early 2026. For 2025 transactions, reporting generally begins with gross proceeds, while cost-basis reporting phases in later, with key "covered" asset treatment tied to acquisitions on or after January 1, 2026.

On the state-policy side, California filed a ballot initiative referred to as the "Billionaire Tax Act" with the Attorney General on October 22, 2025, and amended it on November 26, 2025. A similar proposal has appeared in New York in the form of Senate bill S165, a "billionaire mark-to-market tax act." During the same period, early Bitcoin adopter Owen Gunden reportedly liquidated approximately 11,000 BTC—about $1.3 billion—between October 21 and November 20, 2025.

Finally, ASU 2023-08 requires eligible crypto assets to be measured at fair value, with unrealized gains and losses recognized in net income for fiscal years beginning after December 15, 2024 (meaning many calendar-year companies first reflect the change in 2025 reporting). This shift may have increased perceived earnings volatility for corporate Bitcoin holders, encouraging some firms to reduce exposure to limit income statement fluctuations. Such volatility can affect debt covenant compliance and may increase managerial risk when bonuses or compensation metrics are tied to reported earnings.

UNREALIZED GAINS, MATERIAL MISTATEMENTS, AND A GOING CONCERN? AI'S IMPACT ON STUDENT'S ACCOUNTING GRADES

Dustin M. Grant, University of West Florida

ABSTRACT

Artificial Intelligence (AI) has become widespread since it was mainstreamed in late 2022 with the release of ChatGPT. AI has significantly impacted every industry and its abilities are continuing to improve. While AI has certainly made life easier in some respects, it has created an ethical and challenging issue in higher education. The integrity of exams, courses, programs, and degrees have come into question, especially for fully online degree programs.

This paper describes recent issues in higher education as professors try to combat extensive cheating and student use of AI in coursework. Prior research alludes to the importance of accepting AI and embracing it in higher education, while also attempting to maintain academic integrity. That creates a challenge for professors as students also need to understand, learn, and retain the knowledge necessary for their career field.

This paper analyses the student course performances in an Intermediate Financial Accounting I course and compares the student grade distributions prior to the introduction of mainstream AI (2022 and before) to those after (2023 to present). Other factors, such as exam proctoring methods, will impact overall student performance, so those type factors will also be discussed and addressed. Has AI significantly affected student performances? Only time will tell.

WHO DO EMPLOYEES TRUST MORE, MANAGEMENT OR THEIR RELIGIOUS LEADERS: AN EXPLORATORY QUALITATIVE STUDY

Jesse Greer, Wayland Baptist University, National University

ABSTRACT

The purpose of this qualitative exploratory study was to offer organizational leadership recommendations on how to regenerate trust with the workforce. The underpinnings of this study were centered around a single research question: Do individuals who self-proclaim to live by a religious convention place more trust in their workplace manager or religious leader? Workplace trust took a hit during and after the COVID-19 pandemic, as evidenced by the Great Resignation in the Spring of 2021, and continued with the Department of Government Efficiency (DOGE) initiative that was introduced in January 2025, as thousands of employees and federal contractors were laid off because of governmental cutbacks. The online platform SurveyMonkey® Audience was used to locate and recruit study subjects who met the criteria of being 18 years old or older, employed full-time for 12 consecutive months, residing in the United States, and conforming to some religious affiliation. Participants were asked to answer a single question about whether they trusted their manager at work or their religious leader and were provided an opportunity to comment on why they felt the way they did. The responses were split down the middle, with 27 indicating their manager and 27 selecting their religious leader. The central theme dealt with ambiguity in trusting workplace leadership in some situations and religious leaders in others, but a less prominent theme regarding transparency was generated. With this study being exploratory, further investigation is encouraged.

Keywords*: Employee spirituality, management, religion, trust, workplace spirituality*

IMPLEMENTING TRAUMA-INFORMED CARE PRACTICES IN THE WORKPLACE: A CONSTRUCTIVE REPLICATION STUDY

Jesse Greer, Wayland Baptist University, National University

ABSTRACT

A spotlight has been shone on trauma and how it affects people's lives by popular press and scholarly articles. Greer's (2024) research offered a good starting point for further research into what trauma-informed care principles are needed to help create a healthier workplace. This qualitative constructive replication study aimed to investigate four categories centered on trauma-informed care, safety, trustworthiness, choice and collaboration, and empowerment by adding a criterion that participants hold a management-level position for 12 uninterrupted months. Like the replicated study, SurveyMonkey® Audience was used to locate the sample and disseminate the survey. Fifty participants were the threshold because this is the minimum number SurveyMonkey® Audience will agree to. Three responses were removed because the skip logic question asking if potential participants meet the minimum requirements was answered as no, leaving 47 valid responses. No single category produced stronger results than another. Employees desire to feel physically and emotionally safe in their work environment. Staff must be able to trust their superiors while also being involved in the decision-making process, helping them feel stronger. Likewise, leadership must recognize employees for the hard work they are accomplishing while having the opportunity to learn new skills to help with empowerment. Future research could investigate a narrower population by focusing on a specific industry, like retail or manufacturing, because other fields, like healthcare, have been heavily studied when it comes to trauma-informed care.

Keywords: *Employee wellbeing, trauma, trauma-informed care, workplace environment,*

VOLUNTEER CULTURAL ORIENTATIONS AND LEADERSHIP CHARACTERISTICS IN A VITA ENVIRONMENT

Robin Guerrero, University of the Incarnate Word

ABSTRACT

The Volunteer Income Tax Assistance (VITA) program provides a structured experiential learning environment in which student volunteers develop professional competencies while delivering free tax preparation services to underserved populations. Prior research on VITA participation has primarily emphasized technical skill development and community impact; however, limited attention has been given to the individual characteristics of volunteers themselves, particularly the cultural value orientations and leadership tendencies that may influence participation and effectiveness. Student volunteers enter the VITA environment with differing personal value systems, communication styles, attitudes toward authority, and approaches to teamwork. These cultural dimensions may shape how volunteers collaborate with peers, respond to supervision, assume leadership roles, and engage with the responsibilities associated with tax preparation. Because VITA operates as a team-based professional setting requiring structured procedures, accountability, and initiative, understanding the cultural and leadership characteristics of volunteers may provide valuable insight into factors that influence volunteer engagement and professional development. This study examines how volunteer cultural orientations and leadership tendencies influence participation levels, engagement, and learning outcomes within a VITA environment.

The primary objective of this research is to investigate the extent to which cultural dimensions and leadership characteristics predict volunteer participation and effectiveness. Specifically, the study examines how volunteer cultural orientations including preferences for individual versus collaborative work, attitudes toward structured procedures and uncertainty, and approaches to authority, relate to participation levels and volunteer engagement. The study also evaluates how leadership characteristics, including initiative, responsibility, communication, and peer mentoring behaviors, influence volunteer effectiveness and retention. In addition, the research explores whether particular combinations of cultural orientations and leadership tendencies are associated with higher levels of confidence and professional development, as well as how volunteers perceive the influence of their personal values and leadership styles on their experiences within the VITA program.

This study employs a mixed-methods research design combining quantitative and qualitative data collection. Quantitative data was gathered through a structured survey administered to current and former VITA volunteers. The survey included Likert-scale measures assessing cultural value orientations, such as individualism versus collectivism, comfort with structured procedures, tolerance for uncertainty, and attitudes toward supervision, as well as leadership characteristics including initiative, teamwork, and peer support. Descriptive statistics were used to evaluate relationships between volunteer characteristics and participation outcomes. Qualitative data was collected through open-ended survey responses and interviews, allowing *volunteers to reflect on how their personal values and leadership tendencies influenced their participation and learning experiences.*

This research contributes to the literature on service-learning and volunteer engagement in accounting education by shifting the focus from the populations served to the characteristics of the volunteers themselves. The findings demonstrate that volunteer cultural orientations and leadership characteristics are meaningful predictors of participation and engagement within the VITA environment. Volunteers who demonstrate stronger collaborative orientations and greater comfort with structured procedures may exhibit higher levels of persistence and engagement, while students who display leadership characteristics such as initiative and peer mentoring may report greater confidence and professional growth. Overall, the findings provide evidence that individual cultural and leadership characteristics influence both participation and professional development in experiential learning environments, offering practical guidance for improving VITA training, supervision, recruitment, and retention.

Keywords: *VITA, Cultural Orientations, Volunteer Retention*

RECONSIDERING ESG: DIFFERENTIAL IMPACTS ON RISK AND RETURN FOR S&P 500 FIRMS

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ABSTRACT

Despite the ubiquity of the environmental, social, and governance (ESG) analytical framework, there are important questions regarding the combination of these three latent factors in a single quantitative measure. This study investigated the differential impacts of the three factors on equity risk and return for a sample of S&P 500 companies between 2015 and 2025. The analysis employs Bloomberg ESG data to test for relationships using both bivariate correlations and multiple regression models that control for firm size, systematic risk, profitability, and leverage. The results suggest considerable differences across the three latent factors. Governance scores exhibit the strongest relationships with financial outcomes, with stronger governance associated with lower levels of volatility and positive stock market returns. Environmental scores have no statistically significant relationship with volatility and a negative impact on returns. Finally, social scores display a modest negative relationship with volatility and a mixed result with returns, being positive at one year and negative at three years. Differential effects across the three factors imply considerable measurement challenges for composite ESG scores, which could obscure offsetting impacts. The findings suggest that governance effects are generally positive, potentially due to agency theory mechanisms that enhance returns and mitigate risk. Meanwhile, the impacts of social and environmental factors are more inconsistent, potentially explaining prior disagreements in the research literature. Therefore, the results of this study can be viewed as an argument to disaggregate ESG scores, eschewing the practice of combining them into a single measure.

INTRODUCTION

The acronym ESG, encompassing environmental, social, and governance considerations of corporations, was only coined in 2004, though the concepts reflect broader issues of corporate social responsibility that had been discussed for decades (Pollman, 2024). The ESG framework has grown to a dominant position in sustainable investing, as reflected in analytical measures provided by Bloomberg and MSCI and by incorporation into curriculum, such as the CFA Institute's Sustainable Investing Certificate. However, there has been little evidence or agreement that the three underlying constructs are meaningfully correlated. Indeed, the interpretation of ESG can vary across individuals and evolve over time, thereby obscuring important differences in the measurement, market reception, and financial implications of these factors.

The lack of consistent definitions and measurements only compounds the challenge of studying the impact of ESG on valuation and investor behavior. Furthermore, the various definitions prevent convergence across research papers with correlations across ratings providers reported between 0.38 and 0.71 by Berg et al. (2022). Additionally, ratings from multiple sources do not appear to converge over time (Chatterji et al., 2016), though notably, governance ratings show the strongest convergence.

Despite the challenges in calculating ESG scores and measuring their impact, there remains an appetite for ESG analysis among investors (Kräussl et al., 2024). In an attempt to provide a rational and theoretical foundation for this phenomenon, Giese et al. (2019) discuss how ESG information can influence a firm's value and risk through three channels in a discounted cash flow model. In particular, Giese et al. (2019) show that ESG information influences both systematic risk through lower cost of capital and higher valuation and idiosyncratic risk through higher profitability and lower exposure to tail risk. Therefore, despite the challenges with defining and measuring ESG factors, the underlying constructs likely have a meaningful impact on investments.

Published meta-analyses have generally suggested moderate, positive correlations between ESG measures and financial outcomes (e.g., Orlitzky et al., 2003; Margolis et al., 2009). However, there is also evidence that governance factors have a more consistently positive impact than social and environmental factors (Friede et al., 2015).

The theoretical foundation for positive governance effects is agency theory, and a considerable number of studies have identified specific governance provisions that influence firm performance (e.g., Bebchuk et al., 2009; Brown & Caylor, 2006). Governance is also related to stakeholder theory in that governance mechanisms are the means by which corporate leadership balances competing interests. Therefore, governance can be modeled as a superseding factor in comparison to the narrower focus of environmental and social concerns.

That is not to downplay the potential for environmental and social factors to yield operational efficiencies, marketing value, and risk mitigation, among other possible effects (Porter & Kramer, 2011). Initiatives related to these factors can emphasize the creation of shared value across stakeholders, including cost savings and reputational enhancements. However, there are limits to these effects, such as a negative market reaction to perceived greenwashing (Lyon & Maxwell, 2011) and increased reputation risk due to social issues (Nicolas et al., 2024).

In light of these varied theoretical and empirical discussions, this study investigates three research questions in an exploration of the effects of ESG factors on corporate value and risk:

RQ1. Is there a correlation between ESG scores and measures of stock market risk: annualized volatility and beta?
RQ2. Is there a correlation between ESG scores and stock market return?
RQ3. What are the differential effects across the three factors?

DATA

To investigate the differential effect of environmental, social, and governance metrics on risk and return, sample data were collected for the S&P 500 constituents for which Bloomberg ESG scores were available as of December 31, 2025. Historical data is also collected for a longitudinal panel that covers 10 years the ten prior years (2015–2024). Bloomberg's ESG scores are built from individual field scores, which are aggregated into sub-issues, issues, themes, and finally the three pillars of environmental, social, and governance scores. These three are then combined in a weighted average to an overall ESG score. The pillars and overall ESG score are reported on a scale that ranges from 0 to 10, with 10 being the best performance. Environmental issues include air quality, biodiversity, climate exposure, energy management, environmental supply chain management, greenhouse gas emissions management, sustainable finance, sustainable product, waste management, and water management. Social issues comprise access and affordability, community rights and relations, customer welfare, data security and customer privacy, ethics and compliance, labor and employment practices, marketing and labeling, occupational health and safety management, operational risk management, product quality management, and social supply chain management. Finally, the governance pillar score is based on board composition, executive compensation, shareholder rights, and audit issues.

To explore the effect of ESG factors on equity market outcomes, data are collected on 1-year and 3-year total returns, annualized stock volatility, and beta. Also included in the analysis are several control variables, namely the logarithm of market capitalization, return on equity, and debt-to-equity. Employing listwise deletion for missing data results in a sample of 464 firms. Descriptive statistics appear in Table 1. The high dispersion in returns reflects the sharp gains and losses around the COVID-19 pandemic. Also, the notably higher governance scores (compared to environmental and social scores) stem from Bloomberg's weighting of formal governance structures that are common among large companies.

Table 1

Descriptive statistics

Variable	n	Mean	SD	Min	Max
ESG	500	4.95	1.23	1.51	8.56
E score	500	4.22	2.12	0.00	9.25
S score	500	4.24	2.02	0.54	10.00
G score	500	7.39	0.73	4.48	8.81
Volatility (%)	464	34.66	12.24	6.78	96.39
1-year return (%)	464	19.24	50.29	-89.4	697.5
3-year return (%)	464	24.16	39.40	-61.1	301.6
Beta	464	0.84	0.56	-0.24	3.97
Market cap ($T)	464	0.86	1.56	0.003	4.31
ROE (%)	464	27.07	55.43	-242.50	832.10

ANALYSIS AND RESULTS

ESG scores and risk

The first research question explores the relationship between ESG scores and risk measures, namely volatility and beta. Overall, the composite ESG score is negatively correlated with annualized volatility (Pearson's r = -0.123, p = .008). There is a consistent decrease in volatility across ESG quartiles, and a one-way ANOVA comparing across quartiles is statistically significant (F[3, 460] = 3.44, p = .017). Table 2 presents the quartile analysis.

Table 2

Annualized volatility by ESG quartile

ESG quartile	n	ESG range	Mean ESG	Mean Vol (%)	SD	*t*-test vs. Q1
Q1	117	0.00–4.21	3.19	3.63	14.79	
Q2	116	4.21–5.06	4.60	34.49	11.04	p = .06
Q3	115	5.06–5.80	5.42	32.81	11.84	p = .01
Q4	116	5.80–8.56	6.57	33.70	10.74	p = .02

At a more granular level, the three pillars carry different implications for volatility. Environmental scores show no significant correlation with stock market volatility (r = -0.019, p = .685). However, the correlation between volatility and social score is both larger and statistically significant (r = -0.143, p = .002), and the strongest observed correlation is between governance score and volatility (r = -0.291, p < .001). The correlation between ESG scores and systematic risk, as measured by beta, is also statistically significant (p = .035), but full results are omitted for considerations of space.

To examine the contribution of ESG scores to stock volatility, a regression model is estimated that includes the additional firm-level control variables of size, beta, ROE, and debt-to-equity. The overall model is statistically significant (F[5, 458] = 117.8, p < .001, R^2 = .562). Despite the bivariate relationship between ESG scores and risk, the coefficient is not statistically significant in the regression results (t = -0.37, p = .713). The model implies that larger firms with lower betas tend to report stronger ESG scores, creating potential problems with multicollinearity in assessing their individual impact. However, the associated lower volatility may stem just as much from a firm's size and beta than from any incremental benefit due to ESG factors.

ESG scores and returns

The second research question asks whether there is a correlation between ESG scores and stock market returns. The correlation between the composite ESG scores and 1-year returns is not statistically significant (r = .026, p = .579), while the correlation with 3-year returns is statistically significant and inverse (r = -0.161, $p < .001$). However, the latter result may reflect survivorship and sample selection effects, since the period spans the recent technology-dominated bull market.

Disaggregating the correlation analysis by ESG subcomponent reveals a positive association with stock returns for social (r = 0.066, p = .156) and governance (r = 0.004, p = 926) scores, though neither is statistically significant. By contrast, the correlation between environmental scores and stock returns is negative (r = -0.026, p = .574). This result highlights the limitation of relying on composite ESG scores, when the underlying factors have different impacts.

As before, a regression model is estimated with firm-level controls to determine the strength of the relationship with each of the ESG subcomponents. While cautioning overinterpretation due to multicollinearity and sector effects, the primary observation is the stark difference in effects across the three factors. Governance scores have a positive relationship with stock market returns, which is statistically significant in the 1-year model, while environmental scores have a statistically significant, negative relationship with both 1-year and 3-year returns. Meanwhile, social factors are positive in the short-run and negative in the 3-year model.

Table 3
Regression results with stock returns as dependent variables

Factor	1-year return	*p*	3-year return	*p*
Environmental	-2.33	.038	-2.13	< .001
Social	2.68	.015	-0.15	.750
Governance	6.69	.037	1.55	.269
Model R^2	.144		.399	

The varied results related to stock returns emphasize the challenge of measuring ESG factors and assessing their impact. In particular, the sign change difference between the environmental and governance factors implies that overall ESG scores may obscure offsetting relationships such that attenuation and measurement effects limit the meaningfulness of statistical models. This effect may be one reason for disparate conclusions in the literature when investigating the relationship between ESG and stock returns (e.g., Halbritter & Dorfleitner, 2015).

CONCLUSION

The analysis presented here reinforces the need to distinguish among the subcomponents of ESG. These three factors reflect distinct underlying constructs that have different relationships with risk and return. Governance scores have the strongest relationship with lower volatility and higher stock returns. Environmental scores have minimal effect on volatility and negatively impact stock returns. Social scores fall in between resulting in a statistically significant risk reduction, a positive association with 1-year returns, but a negative correlation with 3-year returns. These distinctions underscore the limitations of models relying on single, composite ESG metrics. Risk management, asset pricing, and valuation models may improve when considering the subcomponents separately. In particular, the CFA analytical framework that often results in these factors being discussed together in a report should be reconsidered, and ESG should instead be discussed as distinct risk and return factors in the appropriate sections of an equity valuation report. In addition to recognizing the need to disaggregate the ESG factors, the results here emphasize the inherent measurement challenges for these complex latent constructs. The lack of replicability when using different ESG measures has been previously noted (Narula et al., 2024). Until these two related measurement problems are acknowledged and resolved, ESG research will struggle with replicability and meaningful implications.

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THE PARTISAN BENCH: AN EMPIRICAL STUDY OF JUDICIAL IDEOLOGY AND SUMMARY JUDGMENT OUTCOMES IN REVERSE DISCRIMINATION CASES

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ABSTRACT

In 2025, the federal executive and judicial branches of the U.S. announced, through numerous executive orders and significant court rulings, measures seeking to curtail and ultimately end workplace Diversity, Equity, and Inclusion (DEI) initiatives. Legal experts expect, because of these actions, that post-2025 employment litigation involving DEI-related programs, such as affirmative action, will undoubtedly be impacted with an expected increase in the number of reverse discrimination cases filed. America's two major political parties have traditionally been divided in their respective support or criticism of such DEI initiatives. To date, no empirical research has examined the outcomes of such cases nor the potential for partisan influence in the determination of rulings in reverse discrimination cases. This research would address that shortcoming by first coding and subsequently analyzing six decades of summary judgement rulings by federal judges in cases involving race and sex-based reverse discrimination claims. As federal judges in district court cases are presidentially nominated, they continually are selected due to their shared political ideology and party affiliation with the current president's administration. This study shall examine if the political partisanship of the federal judiciary has an influence on the politically charged issue of reverse discrimination, by studying the summary judgement rulings of Democratic versus Republican judges. Further analysis will investigate if the judges appointed by different presidents, vary significantly in their rulings in favor of reverse discrimination plaintiffs.

URBAN TRAFFIC CONGESTION AND LABOR MARKET MOBILITY: EVIDENCE FROM NASHVILLE AND COMPARABLE U.S. CITIES

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ABSTRACT

Traffic congestion is increasingly recognized as a factor that can influence worker wellbeing, productivity, and regional economic competitiveness. Rapid population growth in metropolitan areas such as Nashville, Tennessee has led to rising commute times and transportation strain, raising questions about how transportation conditions may relate to worker motivation and employment outcomes. While prior research has established links between commuting stress and individual wellbeing, fewer studies have examined how differences in urban transportation conditions correspond with worker motivation across comparable metropolitan regions using publicly available datasets.

The present study examines whether differences in traffic congestion between two major U.S. metropolitan areas are associated with differences in worker motivation and employment-related indicators. Nashville will be compared with a similarly sized metropolitan area that demonstrates more efficient traffic conditions. The study will use secondary, publicly available datasets related to traffic congestion (e.g., commute time, travel delays, and congestion indices) and labor market indicators associated with worker motivation, such as job-to-job mobility, job satisfaction proxies, and employment stability. These data will be obtained from existing governmental and public research sources including transportation agencies, census data, and labor market databases.

Using a cross-city comparative design, descriptive statistics and correlational analyses will be used to examine associations between transportation conditions and worker motivation indicators at the metropolitan level. The analysis will explore whether regions with higher congestion levels correspond with lower indicators of worker motivation or labor market mobility. Because the study relies exclusively on existing publicly available aggregate data and does not involve interaction with human participants or identifiable private information, the research qualifies as exempt under federal guidelines for secondary data analysis.

By integrating transportation and labor market data, this study contributes to the growing interdisciplinary literature examining how infrastructure conditions shape workforce dynamics. Findings may provide insight into how transportation systems influence worker motivation and economic functioning in rapidly growing urban regions, while also informing future urban planning and workforce policy discussions.

CYBERSECURITY RISK MANAGEMENT FOR MEDICAL DEVICES: BRIDGING CLINICAL SAFETY AND DIGITAL SECURITY IN HEALTHCARE

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ABSTRACT

Connected medical devices are improving patient care by providing real-time data and better clinical decision-making. However, these advancements also create significant cybersecurity risks that can endanger patient safety and the overall effectiveness of healthcare systems. This paper examines key risks associated with networked medical devices, including outdated software, limited patching capabilities, and inconsistent security practices across manufacturers. Real-world situations, such as compromised insulin pumps and tampered heart monitor data, demonstrate the potential for significant harm. Current cybersecurity frameworks, including NIST RMF and ISO/IEC 27001, often fall short in addressing the unique demands of healthcare environments. This paper discusses current threats, regulatory gaps, and recent incidents to offer practical recommendations. Key suggestions include implementing Zero Trust Architecture, incorporating real-time behavior monitoring, enhancing third-party risk management, and considering extended device lifespans. It also presents a timeline for adoption and specific policy strategies. The findings underscore the urgent need to view medical device cybersecurity not as a secondary technical issue, but as a vital component of patient safety and healthcare resilience.

INTRODUCTION

The use of connected medical devices has significantly transformed the modern healthcare delivery landscape. Wireless pacemakers, infusion pumps, glucose monitors, and the like enable clinicians to be more responsive and data-informed in their care. All these technologies have become integral to the everyday operation in hospitals and home healthcare. Nevertheless, as they become more digitally connected, emerging challenges pose new cybersecurity threats that exceed the conventional IT system's initial capabilities. The vast majority of such devices use outdated software, are difficult to update correctly, and do not even utilize encryption. They may therefore succumb to intruders seeking to disrupt operations or harm patients directly.

Cybersecurity concerns in this area are not simply technical problems. They directly affect clinical safety. A hacked insulin pump would result in incorrect dose delivery. A stolen heart monitor could potentially postpone lifesaving treatments. According to the arguments presented by Thomasian and Adashi (2021), the security of the Internet of Medical Things is a key aspect of ensuring safe and trustworthy healthcare settings. Although this sense of urgency is present in the risk management sector, most existing frameworks are not explicitly designed to focus on medical devices. These models typically assume flexible maintenance cycles and rapid updates; however, clinical practice often renders such solutions infeasible. In other instances, immediate software changes are also restricted by regulatory requirements.

This paper examines the digital security threats posed by networked health appliances, describes the drawbacks of existing frameworks, and suggests modifications to enhance security without compromising clinical effectiveness. The aim is to make it clear that better protection of such devices is not optional; they should be provided to ensure secure and uninterrupted treatment for all patients.

OVERVIEW OF MEDICAL DEVICES AND CYBERSECURITY ADOPTION

The increasing use of connected medical devices has reshaped healthcare delivery across a wide range of clinical environments. These devices include wearable monitors, infusion pumps, smart implants, and diagnostic sensors that help improve patient outcomes by providing real-time data and enabling remote viewing. Hospitals have adopted such technologies to aid in surgery, automate drug administration, and monitor patients in intensive care. Clinics utilize them to monitor chronic illnesses and oversee the healing process following surgery. They are also used at home, where patients manage their health daily with minimal clinical support.

The growth in adoption reflects broader trends toward digital healthcare and patient-centred innovation. According to Ramirez (2024), connected medical equipment serves not only as an aid in care delivery but also as a crucial part of the expanding infrastructure that enables remote diagnosis, customized therapy, and sustained patient interactions. It is through these benefits that the maritime industry is recognizing the need to focus on such technologies.

Nevertheless, this success rate in integration has also created a considerable cybersecurity risk. Most of the devices were designed with greater emphasis on clinical performance than on secure connections. Others use outdated systems or rely on updates issued by manufacturers, which limits care providers' ability to control risks directly. Under these design constraints, Shang et al. (2021) argue that cybersecurity coverage gaps would be serious in general when devices are installed across various departments or even by third-party vendors.

The primary issue is that manufacturers' security standards are not standardized. Some vendors require high levels of encryption and authentication, whereas others fail to meet minimum cybersecurity standards. This discrepancy leads to a higher probability of abuse. Moreover, a healthcare organization may not have complete control over the software life cycle of the devices it employs, thus leaving vulnerabilities unaddressed for extended periods.

Another concern is the long service life of medical devices. These tools will typically be used over many years, unlike consumer electronics, which can also become outdated due to software updates. Consequently, the devices can fail to support enhanced security protocols. According to Ramirez (2024), smaller healthcare organizations often struggle to continually assess the protective level of their older equipment, which also poses a risk.

According to Shang and his colleagues (2021), there is an inability to provide similar protection in cybersecurity because the industry lacks harmonization in cybersecurity evaluation. Healthcare facilities will be unable to confidently evaluate whether their equipment complies with existing security principles without clear standards. This problem not only contributes to the sustainability of operations but also to the patient trust. As the usage of connected devices continues to rise, healthcare systems' modelling of these risks requires stronger, vendor-agnostic security mechanisms and management.

Demonstrating Risk: Real or Hypothetical Incident

A growing number of cyberattacks have demonstrated the vulnerability of medical devices within healthcare networks. A rather alarming account is the rise of ransomware attacks on hospitals, since these attacks no longer merely lock systems but also threaten the use of connected electronic devices. Although many incidents may go unnoticed by the general public, their effects on operations and patient health can be severe. According to a well-documented trend by Neprash et al. (2022), there has been a continuous increase in ransomware attacks against healthcare facilities in the United States. More than 200 of such incidents have been reported between 2016 and 2021. Such malware attacks resulted in the suspension of surgeries, delays in patient treatment, and the shutdown of critical departments. To contextualize these threats and better understand how vulnerabilities arise, Diagram 1 visualizes the complex web of interdependencies within modern healthcare systems. The illustration maps the flow of data among critical components, including medical devices, electronic health records (EHRs), hospital networks, cloud platforms, and patient-facing technologies, and identifies potential entry points for malicious actors. This holistic view underscores that even a single compromised element can cascade into widespread disruption, highlighting the urgency of implementing robust cybersecurity strategies.

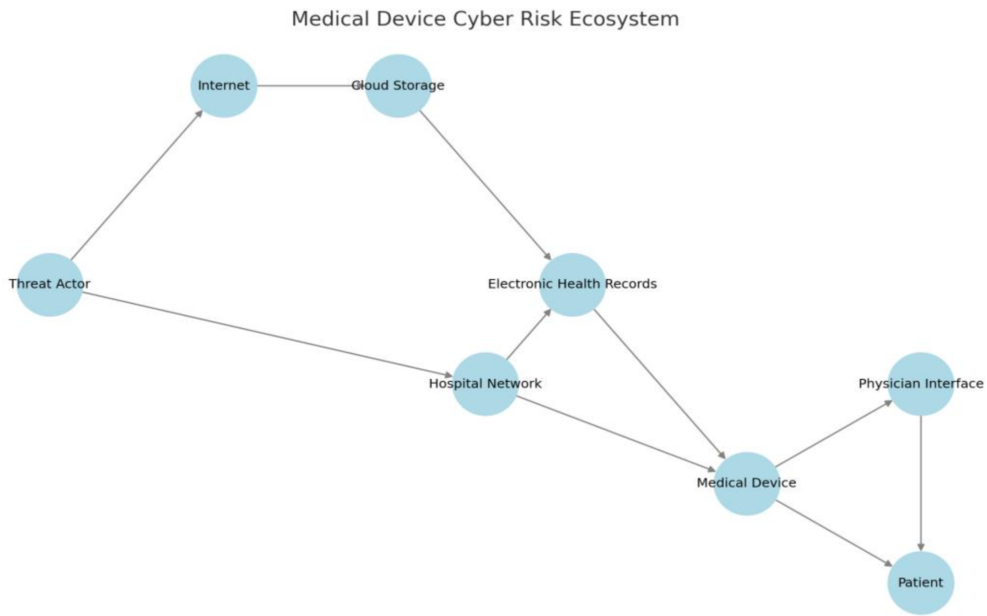

Fig. 1. Medical Device Cyber Risk Ecosystem. The diagram illustrates the relationships among internet-connected systems, medical devices, hospital networks, and potential threat vectors.

While the attacks typically target administrative systems, the increasing interconnectivity between clinical and IT infrastructure means medical devices are also at risk. When an infusion pump is programmed based on orders provided through an electronic health record system, the pump's flow may be affected if the system is hacked. The outcome may be the provision of a false drug or failure to deliver the care. Worse still is the possibility of the attack occurring without notice, especially when the device remains operational but with a configuration change. This manipulation is a covert control that exists in both the medical and legal realms. In another scenario, imagine a wireless heart monitor that transmits real-time data to a physician's dashboard. Should anyone intercept or tamper with that information, a physician may end up making a misguided clinical decision using false information. The patient may receive improper care or face a delay in lifesaving services. Such risks are not virtual. They depict the real-life consequences of treating device security as a secondary consideration.

According to Neprash et al. (2022), the devices are not the primary target of most of these attacks. Instead, they exploit gaps in the larger system and slide sideways. Such a tendency indicates that medical device cybersecurity should be considered in the context of network resilience. The threat environment is also continuously evolving, and malefactors are becoming increasingly adept at identifying system vulnerabilities. According to the medical institutions, it is necessary to start managing device-level cybersecurity as an essential part of clinical safety. Failure to recognize this connection may expose patients to immediate injury and long-term health effects.

REGULATORY ENVIRONMENT AND POLICY CONSIDERATIONS

Regulatory oversight plays a central role in shaping how medical device cybersecurity is managed in healthcare systems. With the increasing interconnection of devices in patient care, federal agencies and industry organizations have taken steps to provide guidance and establish compliance methods. Nevertheless, they tend to overlook the full nature of digital risks in healthcare facilities.

To assist manufacturers in incorporating security into the design of medical devices, the U.S. Food and Drug Administration (FDA) has published several documents that serve as pillars in achieving this goal. The Premarket Guidance on Cybersecurity in Medical Devices is one of the most influential. This document describes standards of threat modelling, secure software updates, and post-market surveillance. Although these are useful, not all of them are enforceable, and their implementation varies across device categories. Because of this, quite a few devices are manufactured at a time, with little resistance to known cyber threats.

According to Montell (2025), the existing regulatory system relies on strong voluntary regulation and self-evaluation, thereby diluting accountability. When a product is authorized, manufacturers are supposed to exercise due diligence; however, post-approval regulation is minimal. This creates a gap between regulatory intent and real-world implementation. Hospitals and clinics are frequently forced to assume the risk of devices they were not involved in designing or over which they could not have complete control.

In addition to the FDA, agencies such as the National Institute of Standards and Technology (NIST) and the Cybersecurity and Infrastructure Security Agency (CISA) provide recommendations on securing health technologies. These recommendations encourage risk assessment, access controls, and resiliency planning. Nevertheless, they are usually general-purpose and may be inadequate for resolving the exact lifecycle, availability, and clinical integration needs of medical devices. As noted by Montell (2025), even when these standards are implemented, consistent protection is often compromised because their interpretation may differ significantly across organisations, thereby altering the degree of protection.

Global efforts to regulate the cybersecurity of medical devices are also uneven. Although the European Union has adopted the Medical Device Regulation (MDR) approach, which addresses software security, the practice remains uneven. Some countries, including Canada and Australia, remain inactive in actualizing enforceable standards of digital health technologies. This only adds to the difficulty in establishing universal safety and compliance benchmarks.

Shang et al. (2021) also explain why conformity assessments are essential to minimize inconsistencies. According to them, third-party evaluation of cyber controls can provide greater trustworthiness than self-reporting paradigms. Such tests also facilitate international standardisation, which can be very useful for manufacturers whose markets are global. Nevertheless, this kind of assessment is still not mandatory in most regulatory frameworks, and in most cases, it is conducted by top-rated companies. Recent proposals aim to strengthen the regulatory environment. In the US, the PATCH Act is an example of legislative action to ensure that cybersecurity considerations are applied to the FDA approval process. Upon becoming law, it would mandate security updates and require manufacturers to maintain a software bill of materials.

Though rather promising, as Montell (2025) states, such initiatives are viewed with distrust by the industry stakeholders, who are afraid of additional expenditures and developmental delays.

In general, the present regulatory environment offers a beginning but not an ultimate solution. It provides recommendations, but not necessarily enforcement, best practices, or adoption. New regulations will require powerful tools as cybersecurity threats become more sophisticated. They are tools needed to secure beyond just design-time, and, through their development, the long-term maintenance and transparency aspects also have to be tackled.

FRAMEWORK LIMITATIONS IN ADDRESSING MEDICAL DEVICE RISKS

Traditional cybersecurity frameworks, such as the NIST Risk Management Framework (RMF) and ISO/IEC 27001, were designed to manage enterprise-level IT systems. Although adapted for use in the healthcare industry, these models do not fully address the unique operational and regulatory challenges posed by medical devices.

The first weakness is that systems can be regularly patched or updated; however, maintenance windows are usually unavailable for medical devices. Equipment must be functional in emergencies, during surgery, and in critical care settings. This implies that security updates are often delayed, leaving them vulnerable to risks. Thomasian and Adashi (2021) note that such an environment of medical practice, with strict uptime requirements, does not allow the implementation of traditional patch cycles without prioritizing patient care.

The second issue is that standards such as ISO/IEC 27001 pay little attention to the physical impact of cyber-attacks on medical apps and devices. In other digital systems, the damage caused by hacking is indirect, unlike in the case of medical devices. An illustration is that if a remote defibrillator is tampered with, the effects may prove fatal. Such a degree of physical risk is seldom addressed in standard models, so they cannot be applied in clinical contexts. Medical devices often have a lengthy product cycle that can span more than 10 years. Many frameworks assume that technology can be updated periodically. Also, the devices in the care field must be used far longer than their initial support life, and the software is considerably outdated, with even less vendor maintenance. This renders the assumptions used in the existing frameworks less useful.

Lastly, the risk assessment in these systems typically focuses on network-scale threats. Still, it does not take into consideration vulnerable dependencies formed by third-party vendors, hardware reliance, and clinic workflow integration. Thomasian and Adashi (2021) state that dismissing these aspects leads to an incomplete risk profile and an inability to mitigate them. To become effective in the healthcare sphere, cybersecurity strategies must be adapted to meet the unique requirements of clinical activities. Frameworks that lack reflection of the actual risks posed by medical devices will continue to be insufficient in safeguarding patients and ensuring the delivery of safe care. To illustrate these shortcomings more concretely, Table 1 presents a comparative analysis of three widely used cybersecurity frameworks: NIST RMF, ISO/IEC 27001, and Zero Trust Architecture. It also highlights their strengths and weaknesses when used in medical device environments. The table also explains why traditional models are insufficient and highlights the need for more customized approaches in healthcare settings.

Table 1
COMPARISON OF CYBERSECURITY FRAMEWORKS IN HEALTHCARE

Framework	Strengths	Limitations in Medical Devices
NIST RMF	Widely adopted in federal and critical infrastructure systems.	Not lifecycle aware: assumes frequent patching is feasible.
ISO/IEC 27001	Globally recognized standard with certification potential.	Ignores the physical impact of cyber threats on patient care.
Zero Trust Architecture	Minimizes trust assumptions and enhances segmentation.	Not tailored to device interoperability and clinical workflows.

PROPOSED MODIFICATIONS TO IMPROVE RISK MANAGEMENT FRAMEWORKS

To effectively manage cybersecurity risks related to medical devices, existing frameworks must be modified to reflect the clinical, operational, and vendor-related complexities found in healthcare. The more conventionally strong frameworks, such as the NIST Risk Management Framework and ISO/IEC 27001, can be fantastic sources for informing risk decisions. However, neither is unique to the realm of network-connected medical devices. Embedded devices are often present in critical care settings and cannot accommodate standard security measures, thereby posing a challenge for application.

Implementing Zero Trust Architecture principles is one of the necessary changes. In contrast to the perimeter-based models, under Zero Trust, no system component, user, or device is considered trusted. Any connection must be validated before access is guaranteed. It is most applicable in a medical setting, where devices communicate with each other regularly across segmented networks and are commonly used by multiple parties. According to Tyler and Viana (2021), Zero Trust can be used to restrict the lateral movement of attackers and contain breaches before they reach patient-facing systems.

Diagram 2 below illustrates the main components of Zero Trust in healthcare settings. This framework highlights the key methods used for user authentication, policy enforcement, and access control across connected devices and systems. By mapping these interactions, the model highlights how Zero Trust can mitigate the inherent vulnerabilities of medical devices and foster a more resilient cybersecurity posture in clinical settings.

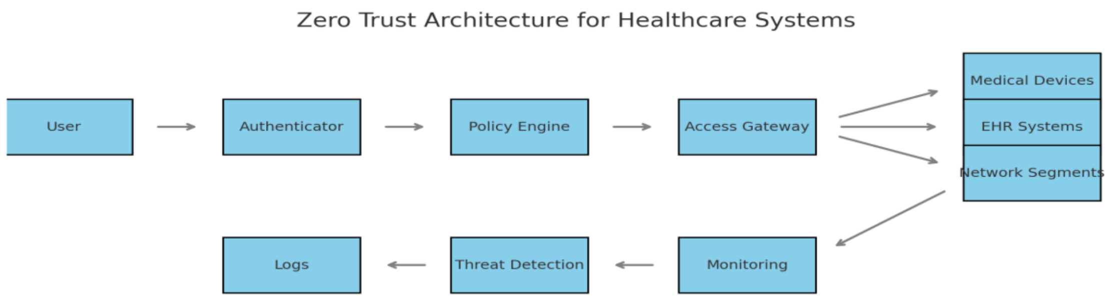

Fig. 2. Zero Trust Architecture for Healthcare Systems. This diagram outlines the steps for authenticating users, enforcing policies, and managing secure data access across medical devices, clinical systems, and network infrastructure. It illustrates how ZTA helps prevent unauthorized access and lateral movement of threats.

The inclusion of real-time monitoring and behavioral analytics is another area for improvement. Most of these gadgets are independent after installation, making it challenging to detect anomalous behaviour. Healthcare organizations can also receive alerts when devices malfunction by integrating security tools that track typical behavior. These tools can detect potential breaches before they lead to loss, even if a conventional alarm is not triggered on the device.

More attention to third-party risk governance is also needed. The supply of many medical devices is handled by external vendors, over which they still retain control regarding software updates, encryption levels, and security. Risk frameworks must mandate transparency from vendors, including access to a software bill of materials and documented patching schedules. This information will help healthcare providers appropriately evaluate risks and set contractual requirements for cybersecurity execution.

Additionally, stakeholder collaboration should be integral to the framework. This involves considering the input of clinical staff, IT professionals, vendors, and legal teams in developing risk and response planning. Collaborative governance enables collaboration to meet patient care objectives while addressing the realities of cybersecurity operations. Frameworks must also account for long device lifetimes, as medical devices may be in use for extended periods. In contrast to conventional IT resources, medical devices often have extended lifecycles. Lifecycle planning should be integrated into risk modeling, as security levels change dynamically. By incorporating these modifications, existing frameworks can become more responsive to the realities of healthcare. Such modifications effectively eliminate vital gaps, exposure, and defend patient safety and institutional integrity.

TIMEFRAME FOR FULL ADOPTION

The adoption of robust cybersecurity frameworks for medical devices remains uneven across the healthcare sector. Most small hospitals do little or nothing to ensure layered defenses, whereas some larger ones have already implemented such defense systems. This gap can be attributed to several obstacles, including budget limitations, a shortage of in-house cybersecurity skills, and vendor opacity. Montell (2025) states that healthcare organisations often postpone updates amid regulatory clarity or consider the expenditures despite recognising the dangers posed by the devices.

Short-term adoption may increase with growing public pressure and high-profile incidents. Within two to three years, institutions with greater resources will likely adopt the new frameworks, especially those that are compliant with the Zero Trust concept and real-time monitoring. Conversely, it can take five to ten years for this to achieve universal adoption in mid-sized and rural facilities.

Long-term progress depends on policy changes and vendor accountability. According to Ramirez (2024), the introduction of innovation in connected medical devices should be accompanied by desirable cybersecurity requirements to achieve significant advancements. Standardization and jointly executed regulation will play a crucial role in accelerating adoption. Healthcare systems must also account for long device lifespans. Successful adoption cannot be upgraded once but needs additional support. Without continued effort, security gaps will persist, putting both systems and patients at risk.

CONCLUSION

Securing medical devices is no longer a secondary concern; it is a critical priority. It is an essential element of clinical reliability and patient safety. The risks these devices pose to modern-day healthcare should be addressed with the same urgency as their benefits, as these risks still define the current state of healthcare. This paper has attempted to comment on the increasing use of connected devices, the actual threats to these devices, and the shortcomings of conventional risk frameworks. Existing models often fail to address the unique challenges found in healthcare, such as limited patching windows, long device lifespans, and reliance on third-party vendors. Healthcare organisations can strengthen their defences by adjusting their structures to incorporate Zero Trust principles and to foster vendor openness and coordinated administration. Reactive measures cannot be used in cybersecurity for this sector. It needs to be integrated into the design, regulation, and subsequent use of medical devices. The healthcare sphere can develop less hazardous mechanisms and technologies with a specific aim, using modernized frameworks to ensure the safety of both data and lives.

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U.S. SMALL BUSINESS AND THE ECONOMY: EXAMINING VARIED SIGNALS

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ABSTRACT

The economic outlook in the United States is sending several different signals making it sometimes challenging to predict how small businesses should react or prepare. If prediction is difficult, it follows that mitigating risk or seizing opportunities effectively – which is at the heart of what entrepreneurs must continuously do – become problematic. One could describe events, starting with Covid-19, as equivalent to a roller coaster ride. Several conditions, including labor shortages led to supply chain disruptions. These were exacerbated by dramatic surges in fuel and energy costs. Several industries and their interdependencies became glaringly obvious. For instance, lacking computer chips, automobile manufacturers could not continue production. Store shelves were beset by a lack of necessities (like toilet paper and baby formula), often resulting in panic buying and other consumer behaviors that made matters even worse. All this precipitated inflation, which has persisted as a major issue for consumers and small business alike. As of June of 2022, a near all-time high rate was reached, at 9.1 percent. As a response on the part of the U.S. Federal Reserve in its effort to tame inflation, interest rates were increased aggressively. Fast forward to the present, and both public and consumer debt levels are at record highs. Labor shortages have inverted to become layoffs. Some of these are widely attributed to tariffs, but automation, which is also occurring at a rapid pace, typically results in restructuring operations. Clearly there are some positives as well. The stock market S&P, and Nasdaq have reached record highs. These conditions comport to sending a plethora of mixed messages that are the focus of this present research.

Keywords*:* *Post-presidential installation economy, inflation, recession, small business, jobs, AI, entrepreneurship.*

AN EXAMINATION OF ACADEMIC ENTITLEMENT AND THE FREQUENCY OF CHEATING BY AMERICAN UNIVERSITY STUDENTS

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ABSTRACT

Do entitled students cheat more often than non-entitled students? This study examines college students from a large regional university in the southwest of the USA (n=197). We examined student behaviors using the Frequency of Cheating (FOC) scale and compared those results to Academic Entitlement (AE). Differences in means were examined for several variables, including major of study, having children, gender, being employed, serving in the military, and First-Generation status. We discovered that cheating was alarmingly common and that most students felt entitled, especially concerning grades.

Keywords: *Academic entitlement, academic cheating, survey, college student*

ANTECEDENTS OF ATTITUDES TOWARD CAUSE-RELATED MARKETING: THE ROLES OF SELF-EFFICACY, ALTRUISM, AND PROSOCIAL BEHAVIOR

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ABSTRACT

As modern consumers become more educated and specific about what products and brands they purchase, companies are continually looking for new means for developing lasting relationships with their consumers (Keller, 2001). A growing notion among consumers and brand managers has been with cause-related marketing (CRM) (Barone, Miyazaki & Taylor, 2000; Basil & Herr, 2006). Cause-related marketing can be conceptualized as the pairing of a firm with a charity in a marketing effort (Basil & Harr, 2006).

Recently there has been renewed awareness of and interest in many social issues, especially among younger generations. These younger consumers are reachable through multiple platforms, which provides companies with the opportunity to connect with them on issues and increasingly tailor messages for them. This relationship helps brands to better understand future behaviors and purchase motives. Though CRM campaigns are designed to appeal to consumers' desire to make a positive difference through their purchasing decisions, not everyone responds to CRM in the same way. Individual differences often shape how people interpret these efforts, which makes it challenging to fully understand the psychological factors behind these evaluations.

While there has been significant research as to the consequences of cause-related marketing efforts, there have been inconsistent efforts in researching the antecedents of consumers' preference for cause-related marketing programs. Businesses have increasingly emphasized the role of morality and ethics (Hsu 2007; Neiati, 2014). Both firms and consumers have demonstrated an increased desire to be more socially responsible (Nejati, 2014). However, this moral imperative is often viewed through the lens of prosocial tendency without addressing intrinsic contributions to such behaviors.

This study investigates antecedents and consequences of cause-related marketing. Specifically, this study proposes a model of antecedents to preferences for cause-related marketing to include self-efficacy, and prosocial behavior personality. In addition, the model posits that through the use of cause-related marketing, firms can develop stronger brand resonance with their consumer. Thus, the current study fills the gap in the current literature and proposes potential antecedents to such prosocial behaviors as well as a path model to explain consumers' preferences for CRM marketing practices.

BOOSTING PRINCIPLES OF MACROECONOMICS ATTENDANCE WITH IMPLEMENTATION INTENTIONS: EVIDENCE FROM A CLASSROOM EXPERIMENT

Christopher K. Manner, Union University

ABSTRACT

Class attendance plays a key role in student performance, especially in subjects like economics, where regular attendance is vital for understanding complex concepts. This study used an experimental design across six sections of Principles of Macroeconomics (N = 193) to examine how implementation intentions affect student class attendance. The experimental group specified how, when, and where they would attend class. The results indicate that implementation intentions effectively encouraged class attendance. This suggests that using implementation intentions is a simple and low-cost way to boost attendance in macroeconomics courses, which could lead to better academic performance.

DROWNING IN DATA BUT STARVING FOR INSIGHT: INSTITUTIONAL USE OF DATA

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ABSTRACT

Institutions of higher education face a pivotal moment as they begin to embrace data to support decision making. This study explores what it means to have a data driven culture in higher education today. Issues related to becoming a data driven culture are also addressed. Finally, results from a study of data driven decision making in 174 higher education institutions from the Middle Atlantic region are presented and evaluated. Institutions appear to have stronger mission alignment than operational data capacity. The larger barriers to productive use of data are insufficient time allocation, limited professional development, weak data literacy, and underdeveloped collaborative processes for interpreting and acting on data. There do not seem to be significant differences between faculty and staff on a broad level; the pattern appears to be broadly organizational. Additional findings will be presented and discussed.

Keywords: *Data-Informed Decision Making Data Culture Higher Education Analytics Institutional Effectiveness Organizational Capacity*

WHEN SOCIAL BONDS WEAKEN: PERCEIVED LACK OF COWORKER SUPPORT, MORAL DISENGAGEMENT, AND CYBERBULLYING AT WORK

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Kemal Koksal, Akdeniz University

ABSTRACT

This study investigates workplace cyberbullying in digitally mediated organizational contexts by integrating social cognitive theory, social exchange theory, and belongingness theory. We propose that perceived lack of coworker support increases workplace cyberbullying through online moral disengagement and examine whether meaningful coworker relationships buffer this effect. Data were collected from 352 employees in a public organization. Structural equation modeling and bootstrapping were employed to test the hypotheses. Results indicate that lack of coworker support positively predicts online moral disengagement, which in turn strongly predicts workplace cyberbullying. Moral disengagement fully mediates the relationship between support deficiency and cyberbullying. However, meaningful coworker relationships do not moderate the relationship between moral disengagement and cyberbullying. Findings suggest that relational deficiencies influence digital misconduct through cognitive mechanisms that deactivate moral self-regulation. Implications for theory and organizational practice are discussed.

INTRODUCTION

The digitalization of organizational communication has transformed workplace interactions while simultaneously creating new opportunities for harmful behaviors such as workplace cyberbullying. Unlike traditional aggression, cyberbullying may occur asynchronously and with reduced social cues, potentially lowering moral restraints. Although its consequences for employee well-being are well documented, the cognitive mechanisms underlying cyberbullying remain underexplored.

Drawing on social cognitive theory, we argue that moral disengagement enables employees to justify harmful digital conduct without self-condemnation. We further contend that relational contexts—particularly perceived lack of coworker support—shape these cognitive processes. By integrating relational and cognitive perspectives, this study offers a process-based explanation of workplace cyberbullying.

THEORETICAL FRAMEWORK

Although cyberbullying has been extensively studied in educational settings, research within workplace contexts remains comparatively limited (Kowalski et al., 2014). Emerging studies suggest that cyberbullying in organizations is associated with emotional exhaustion, decreased job satisfaction, turnover intentions, and psychological distress (Coyne et al., 2017). Despite its serious consequences, little is known about the psychological mechanisms underlying employees' engagement in such behavior. In particular, the cognitive processes that allow individuals to disengage from internal moral standards in digital work environments remain underexplored.

Moral disengagement, derived from social cognitive theory, refers to a set of cognitive mechanisms that enable individuals to justify or rationalize unethical behavior without experiencing self-condemnation (Bandura, 1999). While moral disengagement has been widely linked to aggressive and deviant behaviors, including cyber aggression (Bussey et al., 2015), limited research has examined its role in workplace cyberbullying. Moreover, moral cognition does not operate in isolation; it is shaped by social and relational contexts. Organizational environments characterized by weak interpersonal bonds and low social support may undermine moral self-regulation, thereby increasing the likelihood of harmful online behaviors.

Workplace social support, defined as the perception that colleagues provide emotional, informational, or instrumental assistance, is a central resource in organizational life (Rhoades & Eisenberger, 2002). When employees perceive low levels of social support, they may experience social isolation, alienation, and weakened organizational identification. Such conditions may erode moral self-regulation and foster disengagement from ethical standards. At the same time, meaningful workplace relationships—characterized by mutual respect, trust, and psychological connection—may function as a protective factor by strengthening employees' moral accountability and sense of belonging (Baumeister & Leary, 1995). Social cognitive theory posits that moral self-regulation guides behavior through internalized standards. Moral disengagement deactivates these standards via mechanisms such as justification, diffusion of responsibility, and dehumanization. In digital contexts, reduced feedback and psychological distance may intensify these mechanisms.

Social exchange theory suggests that supportive workplace relationships foster reciprocity and ethical accountability. When employees perceive insufficient coworker support, relational bonds weaken, potentially facilitating moral disengagement. Accordingly, we hypothesize that lack of coworker support increases moral disengagement (H1), moral disengagement increases cyberbullying (H2), and moral disengagement mediates the relationship between support deficiency and cyberbullying (H3). We also test whether meaningful coworker relationships moderate the disengagement–cyberbullying link (H4).

METHODOLOGY

The study sample consisted of 352 employees from a public organization. Data were collected via online survey following ethical approval. Validated scales were used to measure perceived lack of coworker support, online moral disengagement, meaningful coworker relationships, and cyberbullying. All constructs demonstrated acceptable reliability and validity.

The study was approved by the first author's Social and Human Sciences Research Ethics Committee. Participants gave written consent, were informed that participation was voluntary, and could withdraw at any time. The study included 352 employees from a public organization, representing 46% of the total workforce. The authors calculated a required sample size of 384, with 95% confidence and a 5% margin of error (Krejcie & Morgan, 1970). The authors distributed the questionnaire to 400 employees through online messaging platforms. Data collection began with 365 participants via convenience sampling and an online survey. Thirteen participants were excluded from the analysis because of incorrect responses to the attention-check question, leaving a final sample of 352 participants.

FINDINGS

Table 1 presents the means, standard deviations, and correlations for the study variables. Perceived lack of coworker social support (PLCSS) showed significant positive correlations with Online Moral Disengagement (OMD) and Cyberbullying, and a significant negative correlation with Meaningful Coworker Relationship (MCR). OMD has a positive and significant correlation with cyberbullying. Among these variables, only MCR's mean score exceeded the midpoint of 3, whereas perceived cyberbullying had the lowest mean value (M = 1.98, SD = 0.94).

Table 1. The means, standard deviations, correlation, and Cronbach alpha values between the study variables

Variables	M	SD	1	2	3	4
1. Perceived lack of workplace social support	2.64	1.22	(0.95)			
2. Online Moral Disengagement	2.06	1.06	.34**	(0.96)		
3. Meaningful Co-worker Relationships	3.29	1.11	-.68**	-.06	(0.82)	
4. Cyberbullying	1.98	0.94	.26**	.69**	-.04	(0.96)

**p<.01 (two-tailed)

Structural equation modeling and regression analysis

Prior to SEM analysis, multicollinearity was evaluated with the variance inflation factor (VIF) and condition index in SPSS. The VIF values ranged from 1.28 to 2.98, and the condition index ranged from 1.00 to 8.94, suggesting no multicollinearity among the variables. The SEM analysis was then conducted on the study model, as illustrated in Figure 1.

Correlations among the variables support H1 and H2. Table 2 presents the mediation results showing total, direct, and indirect links. Structural equation modeling results indicate that perceived lack of workplace social support significantly predicts online moral disengagement (β = .36, SE = .08, 95% CI [.21, .49], p < .001). In turn, online moral disengagement shows a strong and positive association with workplace cyberbullying (β = .83, SE = .06, 95% CI [.71, .92], p < .001). Although the total effect of perceived lack of workplace social support on cyberbullying is significant (β = .29, 95% CI [.15, .43]), its direct effect becomes non-significant (β = –.05, 95% CI [–.10, .10]) when moral disengagement is included in the model. Bootstrap analyses based on 5,000 samples confirm a significant indirect effect (β = .30, SE = .07, 95% CI [.17, .43]), indicating full mediation. These findings support the proposed mediation model and demonstrate that workplace social support influences cyberbullying primarily through cognitive moral disengagement mechanisms.

Perceived lack of workplace social support influences cyberbullying through online moral disengagement, supporting H3. The initial significant correlation between perceived lack of workplace social support and cyberbullying becomes non-significant after including mediators, but the total indirect effect remains significant, indicating full mediation and supporting H3.

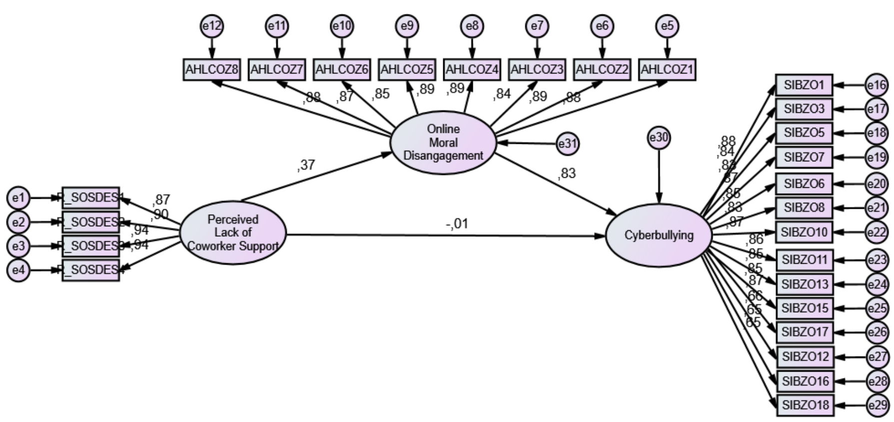

Figure 1. SEM Model and results

Hayes (2013) used the PROCESS macro (Model 1) to conduct a regression to assess how a meaningful coworker relationship moderates the links between online moral disengagement and cyberbullying. Hierarchical regression analysis was conducted to examine whether meaningful coworker relationships moderate the relationship between online moral disengagement and cyberbullying. Results indicate that online moral disengagement is positively and significantly associated with cyberbullying (β = .70, SE = .04, t = 15.89, p < .01). In contrast, meaningful coworker relationships do not show a significant direct effect on cyberbullying (β = –.01, SE = .04, t = –0.10, p = .91). Importantly, the interaction term between online moral disengagement and meaningful coworker relationships is not statistically significant (β = .03, SE = .03, t = 1.07, p =

.28), indicating that meaningful coworker relationships do not moderate the association between moral disengagement and cyberbullying. The overall model is significant ($F = 84.649$, $R^2 = .63$), explaining 63% of the variance in cyberbullying; however, the change in explained variance due to the interaction term is minimal ($\Delta R^2 = .01$). These findings do not support the proposed moderation hypothesis.

DISCUSSION AND IMPLICATIONS

This study demonstrates that relational deficiencies influence workplace cyberbullying through cognitive moral mechanisms. Rather than directly causing misconduct, lack of coworker support facilitates moral disengagement, which then enables harmful digital behavior. These findings extend workplace cyberbullying research by integrating relational and cognitive perspectives. Practically, organizations should strengthen peer support systems and incorporate digital ethics training targeting moral disengagement mechanisms. Addressing relational climates may be more effective than relying solely on monitoring or punitive approaches.

CONCLUSION

Workplace cyberbullying emerges not merely from weak social bonds but from the cognitive disengagement processes those weakened bonds foster. Enhancing coworker support and reinforcing moral accountability are critical for reducing harmful digital behaviors in organizations.

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DIGITAL CURRENCIES AND REGIONAL SETTLEMENT PLATFORMS AS CATALYSTS FOR DE-DOLLARIZATION: A POST-TARIFF COMPARATIVE ANALYSIS OF BRICS+, PAPSS, AND ASEAN

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ABSTRACT

This study investigates how Central Bank Digital Currencies (CBDCs) and regional digital settlement platforms are reshaping the structure of international finance in the aftermath of the April 2025 U.S. universal tariff shock. Using a qualitative comparative framework, the analysis examines three institutional models of monetary diversification: the CBDC-driven approach of BRICS+, the platform-based integration strategy of Africa's Pan-African Payment and Settlement System (PAPSS), and the regulatory coordination model of ASEAN's Local Currency Settlement (LCS) framework. Drawing on institutional reports, trade data comparisons, and event-based analysis, the study evaluates how external policy shocks influence the adoption of alternative settlement infrastructure. Findings indicate that de-dollarization is occurring primarily through operational substitution in trade settlement rather than through large-scale reserve displacement. The tariff shock accelerated institutional investment, corporate adoption of local-currency invoicing, and expansion of cross-border digital payment corridors. However, the transition remains incremental, shaped by liquidity constraints, regulatory coordination challenges, and persistent dollar network effects. The study concludes that the global monetary system is evolving toward a multipolar structure in which regional payment systems and sovereign digital currencies coexist alongside continued U.S. dollar dominance. Policy implications emphasize liquidity backstops, interoperability, and governance harmonization as necessary conditions for sustained monetary diversification.

Keywords: *de-dollarization, central bank digital currencies, regional payment systems, global tariffs, international monetary system*

INTRODUCTION

The U.S. dollar has occupied a central role in the international monetary system for more than seven decades. It functions simultaneously as the dominant reserve currency, principal invoicing currency, and primary vehicle for cross-border payments. This position reflects deep and liquid financial markets, extensive global banking networks, and powerful network externalities that reinforce its use in international transactions. Despite periodic predictions of currency diversification, the structural foundations of dollar dominance have remained resilient.

In recent years, however, geopolitical fragmentation, sanctions regimes, and trade protectionism have intensified interest in alternative settlement mechanisms. Emerging economies have increasingly sought to reduce exposure to dollar liquidity cycles and correspondent banking networks that are heavily influenced by U.S. regulatory jurisdiction. These concerns have converged with rapid technological advances in digital payment infrastructure, particularly the development of Central Bank Digital Currencies (CBDCs) and regional settlement systems.

A major catalyst for recent developments was the United States' announcement in April 2025 of a universal tariff applied to imports. Although primarily a trade policy instrument, the tariff generated broader systemic consequences. By increasing the cost of accessing U.S. markets and raising transaction risks associated with dollar-denominated trade settlement, the policy shock encouraged governments and firms to accelerate experimentation with local-currency settlement and digital financial infrastructure.

This paper examines how digital currencies and regional payment systems function as mechanisms of operational de-dollarization. Rather than focusing on reserve currency displacement, the analysis emphasizes transactional substitution in trade and investment flows. Three regional blocs are examined: BRICS+, Africa's Pan-African Payment and Settlement System (PAPSS), and ASEAN's Local Currency Settlement framework. These cases represent distinct institutional pathways toward monetary diversification.

The central argument is that de-dollarization is being driven primarily by digital financial infrastructure and regional institutional coordination rather than by abrupt macroeconomic shifts in reserve composition. Policy shocks such as the 2025 tariff accelerate adoption, but technological capability and institutional design determine long-run sustainability.

LITERATURE REVIEW

Scholarly research on the international monetary system consistently emphasizes the persistence of dollar dominance. Eichengreen (2011) demonstrates that reserve currency status is supported by financial depth, institutional credibility, and network effects that are difficult to replicate. Empirical studies of trade invoicing show that a small number of vehicle currencies account for the majority of global transactions, reinforcing the centrality of the dollar (Gopinath, 2015).

Recent literature, however, highlights emerging pressures for diversification. Cohen (2019) emphasizes geopolitical competition among currencies, while Tooze (2021) underscores the role of crisis-driven policy experimentation. Research by the Bank for International Settlements (2023) identifies CBDCs as potential infrastructure for cross-border payment transformation, particularly when linked through multi-jurisdictional settlement platforms.

Regional initiatives have also attracted growing attention. ASEAN's Local Currency Settlement framework promotes bilateral trade invoicing in domestic currencies. Africa's PAPSS provides real-time settlement infrastructure to support continental trade integration. Multi-CBDC platforms such as Project mBridge demonstrate technical feasibility for atomic foreign exchange settlement across jurisdictions.

Despite these advances, most studies analyze technological innovation, regional integration, and geopolitical shocks separately. Limited research examines how external policy shocks interact with digital monetary infrastructure to accelerate settlement diversification. This study integrates these elements within a unified analytical framework.

CONCEPTUAL FRAMEWORK

The analysis is structured around a Digital Monetary Infrastructure Triangle consisting of three mutually reinforcing components: sovereign digital currencies, regional settlement platforms, and strategic trade realignment. CBDCs provide programmable state-backed money that can be used for domestic and cross-border transactions. Regional settlement platforms provide the operational infrastructure necessary to clear and settle payments without reliance on traditional correspondent banking networks. Trade realignment generates economic demand for local-currency settlement by reshaping supply chains and invoicing practices.

These components operate in a feedback loop. Trade incentives stimulate adoption of digital settlement systems, which in turn increase demand for local currency liquidity. Over time, repeated use of alternative settlement infrastructure reduces reliance on dollar intermediation while preserving macro-level stability.

METHODOLOGY

This study employs qualitative comparative analysis to evaluate institutional responses to the April 2025 tariff shock. Three regional blocs were selected based on their strategic importance and distinct institutional designs. BRICS+ represents a state-led approach centered on CBDC development. Africa's PAPSS reflects a platform-led model embedded within regional trade integration. ASEAN's Local Currency Settlement system represents regulatory coordination without new infrastructure.

Data sources include central bank reports, international institutional publications, trade statistics, and policy announcements. Comparative case analysis identifies institutional design features and adoption pathways. Event analysis evaluates changes in settlement practices following the tariff shock.

The research does not estimate econometric substitution rates but instead focuses on institutional mechanisms shaping monetary diversification.

FINDINGS

Comparative analysis reveals that de-dollarization is proceeding through incremental operational substitution. In BRICS+, central banks are expanding CBDC pilots for cross-border trade. In Africa, PAPSS enables local-currency settlement across regional trade corridors, reducing foreign exchange pre-funding requirements. In ASEAN, corporate adoption of local-currency invoicing increased sharply following the tariff shock.

The April 2025 tariff functioned as an exogenous accelerator. It increased the relative cost of dollar-based settlement and highlighted exposure to external financial policy. In response, governments expanded digital infrastructure investment, financial institutions strengthened liquidity arrangements, and firms adopted local-currency invoicing to reduce transaction costs.

Despite these developments, the dollar remains dominant in reserves and global capital markets. Substitution occurs primarily at the transactional level rather than at the systemic level.

POLICY IMPLICATIONS

Sustained settlement diversification requires liquidity support mechanisms, regulatory harmonization, and interoperability across payment systems. Without reliable currency swap arrangements and market-making institutions, firms will continue to rely on dollar liquidity for risk management. Governance coordination is essential to ensure compliance standards and payment security across jurisdictions.

Policymakers should pursue gradual substitution strategies that expand regional settlement capacity while maintaining financial stability. Digital settlement infrastructure should be viewed as complementary rather than antagonistic to existing monetary arrangements.

CONCLUSION

The international monetary system is undergoing gradual restructuring driven by digital technology and regional institutional innovation. The April 2025 tariff shock accelerated adoption of alternative settlement mechanisms but did not fundamentally alter global reserve structures. BRICS+, PAPSS, and ASEAN demonstrate distinct pathways toward reduced dollar reliance, suggesting the emergence of a multipolar monetary architecture characterized by coexistence rather than replacement.

Future research should quantify substitution effects and evaluate long-term implications for global financial governance.

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STITCHED IN DEBT: JOANN IN THE DIGITAL AGE

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CASE DESCRIPTION

Founded in 1943, JOANN completed the liquidation on May 31, 2025, and ended its history of over 80 years as a specialty retailer of fabrics, crafts, and home decorations. The COVID-19 pandemic had significant effects on the operations and financial performance of JOANN. During the early stage of the COVID-19, lockdowns contributed to the increases in the demand for DIY (do-it-yourself) and crafting supplies, leading to boosted sales revenue expanded operations. The positive impact from the pandemic failed to last when the COVID restrictions were gradually eased in 2021. The shift of consumer spending away from discretionary areas such as crafts resulted in substantial drops in sales. Consequently, JOANN's long-term financial challenges, which were temporarily disguised by the revenue boost during the pandemic, resurfaced with the post-pandemic sales decline. JOANN's financial challenges deteriorated with inflation and supply chain mismanagement. In March 2024 and January 2025, JOANN filed for Chapter 11 bankruptcy twice. JOANN's fate is determined when it failed to find a buyer after the file of the second bankruptcy. By the end of May 2025, all physical stores and online operations ceased, marking the end of JOANN. This case provides a real-world example for accounting and finance students to analyze financial information, interpret findings, and assess implications.

SUPER MICRO: AN ACCOUNTING MAJOR'S ROLLER COASTER RIDE IN RISK AND REWARD

Songtao Mo, Purdue University Northwest

CASE DESCRIPTION

"Accounting is the language of business". While many accounting students find accounting courses tedious and boring, the interpretation of accounting information poses an important task for accounting educators to instill in classroom activities. To explore the association between accounting information and stock price movement can help to achieve that goal. The company of selection is Super Micro Computer, Inc. (ticker: SMCI), a major player in Artificial Intelligence (AI). Starting 2023, the investment community turned attention to AI, a potentially powerful value driver. This case study followed a fictitious character, Chris Campbell, in his decision-making process. The emphasis rests with the usefulness of financial information. That is, corporate disclosures that are included in the mandatory forms provide useful information to investors.

Through this case study, students can gain understanding on the valuation of a publicly traded company with balanced risk considerations. This real-world example also offers an opportunity for students to learn the connection between financial disclosures and market performance. Furthermore, this case study sheds light on how accounting information impacts investment outcomes.

AN ADVENTURE IN FINANCIAL LITERACY AND TAX: RETURN FROM INVESTMENT IN TSLY

Songtao Mo, Purdue University Northwest
Deanne Shimala, Purdue University Northwest

CASE DESCRIPTION

This case study follows the journey of a fictional character named Vanessa Rosebud, a teen girl who explores investments, taxes, and financial decision-making. In 2023, Vanessa received a birthday gift of 100 shares of the YieldMax TSLA Option Income Strategy ETF (TSLY). Due to a compliance requirement, Vanessa's holding of TSLY ended abruptly in 2025. In Vanessa's computation of the returns on her investment in TSLY, she needs to collect the dividend information and factor in the individual income tax implications. Through this case study, students can gain understanding of tax return computations and tax implications on stock market investment. Adapted from a real-world story, this case study also offers an opportunity for students to consider the connection between tax management and financial investment. Furthermore, this case study sheds light on how tax considerations may impact investment decisions.

Keywords: *financial investment, tax management, dividend*

THE IMPACT OF THE PFIZER COVID-19 VACCINE ANNOUNCEMENT ON THE U.S. HEALTH CARE SECTOR: A TEST OF MARKET EFFICIENCY

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ABSTRACT

On November 9, 2020, Pfizer Inc. announced that its COVID-19 vaccine candidate demonstrated over 90% efficacy in Phase III clinical trials, marking a major breakthrough in the global vaccination effort. The announcement triggered immediate market optimism, particularly within the U.S. health care sector. Therefore, the purpose of this study is to evaluate the semi-strong form of the Efficient Market Hypothesis (EMH), which asserts that publicly available information is rapidly introdyced into security prices. Following standard event study methodology and consistent with the risk-adjusted market model approach, this paper examines the impact of the Pfizer vaccine announcement on the stock prices of 25 U.S. health care firms in the S&P 500 Index.

Using historical stock price data and S&P 500 index returns, this study calculates holding period returns and firm-specific expected returns, and evaluates market reactions through Average Excess Returns (AER) and Cumulative Average Excess Returns (CAER) during the event window. The results indicate no statistically significant excess returns on or surrounding the announcement date. Although CAER shows an upward trend following the announcement, t-tests reveal no significant deviation from expected performance. These findings support the semi-strong form of market efficiency. Overall, this study demonstrates that even unexpected medical breakthroughs may not produce persistent pricing inefficiencies in highly traded markets.

INTRODUCTION

On November 9, 2020, Pfizer Inc., in partnership with BioNTech, announced that its COVID-19 vaccine candidate demonstrated over 90% efficacy in Phase III clinical trials, representing a confirmed vaccine breakthrough during the global pandemic. Immediately following the announcement, the S&P 500 Index surged 3.6%, while the Dow Jones Industrial Average posted its largest single-day point gain since March 2020. The health care sector became a primary focus for investors as markets reacted to the potential end of the pandemic and a reopening of the global economy.

Given the magnitude of the announcement, this study seeks to determine whether the Pfizer vaccine announcement generated abnormal stock price reactions within the U.S. health care sector. Specifically, this research evaluates whether the market reaction supports the semi-strong form of the Efficient Market Hypothesis (EMH), which asserts that publicly available information is rapidly incorporated into stock prices. Event studies are widely used to test semi-strong efficiency by examining whether actual stock returns deviate from expected returns around major information releases.

This study applies the standard event study methodology using a risk-adjusted market model. By analyzing the stock price behavior of 25 health care firms in the S&P 500 Index, this research evaluates whether the Pfizer announcement resulted in statistically significant excess returns on the event date or during the surrounding period. The purpose of this study is to assess whether the Pfizer vaccine announcement produced pricing inefficiencies or whether markets incorporated the information efficiently, as predicted by the EMH.

LITERATURE REVIEW

The Efficient Market Hypothesis (EMH), developed by Eugene Fama (1970), argues that security prices reflect available information, preventing investors from consistently achieving excess returns. Fama identified three forms of efficiency: weak, semi-strong, and strong. The weak form states that historical prices are incorporated into current prices. The semi-strong form includes all publicly available information, such as earnings announcements and policy decisions. The strong form asserts that even insider information is reflected in prices.

Event studies are the primary method for testing semi-strong efficiency by examining whether new information produces excess returns beyond expected performance. Foundational work by Fama, Fisher, Jensen, and Roll (1969) showed that stock prices typically adjust quickly to information releases. Event studies have since been used to analyze reactions to economic announcements, mergers, and regulatory changes, with some studies showing rapid adjustments and others finding short-term overreactions.

The COVID-19 pandemic created uncertainty in financial markets, making pharmaceutical developments influential. Vaccine announcements had the potential to alter investor expectations about economic reopening and health care demand. However, whether these announcements produced sustained abnormal returns remains unclear. Some research suggests pandemic news caused temporary volatility without persistent inefficiencies.

Based on this literature, the Pfizer vaccine announcement represents a major public information event suitable for evaluating semi-strong efficiency. By testing whether U.S. health care stocks showed abnormal performance around November 9, 2020, this study contributes to understanding how markets process pharmaceutical breakthroughs.

METHODOLOGY

This study examines the stock price reaction of 25 firms in the S&P 500 Health Care sector to Pfizer's vaccine announcement on November 9, 2020. These firms represent pharmaceuticals, biotechnology, medical devices, and health services. The announcement is defined as Day 0.

Using standard event study methodology and a risk-adjusted market model, daily firm returns were analyzed relative to the S&P 500 Index. Stock price data were obtained from Yahoo Finance. The event window spans Day –30 to Day +30, while a 151-day estimation period (Day –

181 to Day –31) was used to estimate normal returns. Holding period returns were calculated as percentage changes in closing prices.

Market model regressions generated firm-specific alpha and beta values to estimate expected returns. Excess returns were calculated as the difference between actual and expected returns. Average Excess Returns (AER) were computed across firms for each day, and Cumulative Average Excess Returns (CAER) were calculated by summing daily AER values. These values were statistically tested to determine whether the vaccine announcement produced abnormal performance.

TABLE 1: CORRESPONDING APLHAS AND BETAS

TICKER	FIRM NAME	ALPHA (α)	BETA (β)
PFE	Pfizer Inc.	0.000222	0.694003
CVS	CVS Health Corporation	–0.001147	0.793650
MCK	McKesson Corporation	–0.000661	0.959475
HCA	HCA Healthcare	–0.000520	1.177248
VRTX	Vertex Pharmaceuticals	0.000876	0.819389
MDT	Medtronic Plc	–0.000534	0.972875
SYK	Stryker Corporation	–0.000208	1.130067
BSX	Boston Scientific Corporation	–0.000616	1.007859
GILD	Gilead Sciences	–0.000905	0.508529
DHR	Danaher Corporation	0.001762	0.772233
AMGN	Amgen Inc.	0.000734	0.790623
ISRG	Intuitive Surgical	0.001015	1.111248
TMO	Thermo Fisher Scientific	0.001763	0.732583
ABT	Abbott Laboratories	0.001342	0.866550
MRK	Merk Sharp and Dohme	0.000058	0.701624
UNH	UnitedHealth Group	0.000635	1.113101
ABBV	AbbVie Inc.	–0.000573	0.706382
JNJ	Johnson & Johnson	–0.000092	0.681813
LLY	Eli Lilly and Company	0.000622	0.723962
CI	The Cigna Group	–0.001287	1.173430

Based on the event study methodology and the semi-strong form of the Efficient Market Hypothesis (EMH), the following hypotheses are established to evaluate whether the Pfizer vaccine announcement produced abnormal performance within the U.S. health care sector:

H10: The risk-adjusted returns of U.S. health care firms are not significantly affected by the Pfizer vaccine announcement on November 9, 2020.

H11: The risk-adjusted returns of U.S. health care firms are significantly affected by the Pfizer vaccine announcement on November 9, 2020.

H20: The risk-adjusted returns of U.S. health care firms are not significantly affected during the event period surrounding November 9, 2020.

H21: The risk-adjusted returns of U.S. health care firms are significantly affected during the event period surrounding November 9, 2020.

These hypotheses allow for testing both the immediate market reaction to the announcement and any extended response over the 61-day event window.

QUANTITATIVE TESTS AND RESULTS

To control for overall market movements, I estimated a market model for each of the 20 healthcare firms using the risk-adjusted method described by Bacon (2019). Daily stock returns from Day –180 to Day –31 relative to November 9, 2020 were regressed on daily S&P 500 returns to obtain firm-specific intercepts (α) and betas (β). The resulting betas were generally close to or slightly above 1, indicating risk levels similar to the market, with some firms above 1 and others below 1.

Using these parameters, expected returns were computed for the event window from Day –30 through Day +30 as $E(R_{i,t})=\alpha_i+\beta_i R_{m,t}$. Excess returns were calculated as $ER_{i,t}=R_{i,t}-E(R_{i,t})$. Average Excess Returns (AER) were obtained by averaging across firms, and Cumulative Average Excess Returns (CAER) were calculated by summing AERs.

Across the 61 event-window days, the mean AER is –0.000341 with a standard deviation of 0.007183. A one-sample t-test yields a t-statistic of –0.371 ($p \approx 0.712$), indicating daily abnormal returns are not statistically different from zero. In contrast, the mean CAER is –0.008249 with a standard deviation of 0.011099 and a t-statistic of –5.805, implying a statistically significant cumulative negative effect of about 0.8% over the –30 to +30 day period.

Figures 1 and 2 illustrate these findings. Figure 1 shows no consistent pattern in daily abnormal returns, while Figure 2 shows CAER initially rising near the announcement date and then drifting downward to a negative level. This suggests the Pfizer vaccine announcement did not produce persistent positive abnormal returns; instead, the sector experienced a modest negative drift relative to its expected performance.

Figure 1
TIME VS. AVERAGE EXPECTED RETURN (AER)

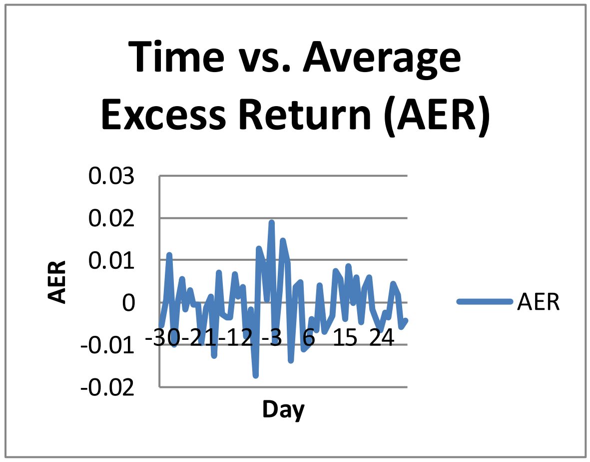
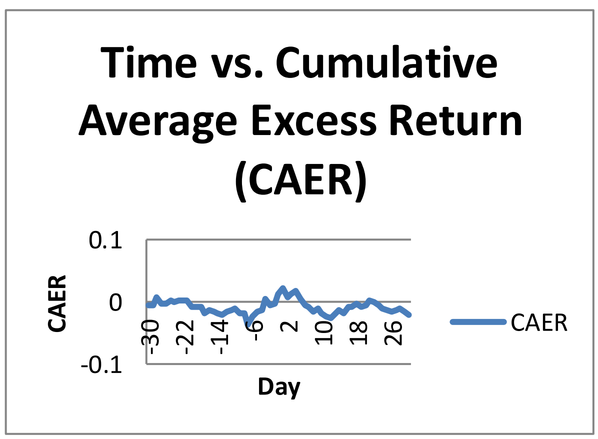


Figure 2
TIME VS. CUMULATIVE AVERAGE EXPECTED RETURN (CAER)



CONCLUSION

This study examined the stock price reaction of U.S. health care firms to Pfizer's COVID-19 vaccine announcement on November 9, 2020. Using a risk-adjusted market model and daily data for 20 S&P 500 health care stocks, the analysis tested whether the announcement generated abnormal performance consistent with a violation of the semi-strong form of the Efficient Market Hypothesis. Firm-specific alphas and betas were estimated over a 150-day pre-event window (Day –181 to Day –31), and these parameters were used to compute expected returns, excess returns, Average Excess Returns (AER), and Cumulative Average Excess Returns (CAER) over a 61-day event window from Day –30 to Day +30.

Overall, the evidence suggests that the Pfizer vaccine announcement did not create sustained positive abnormal returns for the health care firms in this sample. Instead, after a brief adjustment around Day 0, cumulative performance drifted downward relative to the market model benchmark. One interpretation is that, while the vaccine news was fundamentally positive for the broader economy, investors reassessed long-run prospects for certain health care firms, leading to a gradual repricing of the sector. Nonetheless, because individual daily excess returns remained close to zero, the results still largely support the semi-strong form of market efficiency: prices adjusted quickly to the new information, and opportunities for consistent abnormal profits were limited once risk was taken into account.

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FROM CERTIFICATION TO ACCOUNTABILITY: POLICY RECOMMENDATIONS FOR BRIDGING QUALITY MATTERS AND AACSB ASSURANCE OF LEARNING IN GRADUATE BUSINESS EDUCATION

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ABSTRACT

A systematic analysis of all 44 Quality Matters (QM) Higher Education Rubric standards found that 97.7% operate at lower-order cognitive levels as defined by Anderson and Krathwohl's (2001) Revised Bloom's Taxonomy, and that only 9.1% align with Knowles' (1984) andragogical principles (Narsing, 2026, March). These findings expose a policy-consequential divide: AACSB Assurance of Learning (AOL) standards require programs to demonstrate higher-order competency outcomes at the program level, yet the dominant course-level quality instrument in higher education was not designed with that accountability in mind. Graduate business programs — particularly at state-run institutions experiencing publicly documented enrollment declines among working professionals — can achieve full QM certification while remaining substantively deficient in the cognitive and andragogical foundations that AACSB peer review demands. This paper introduces the Graduate Business Adaptation Framework (GBAF) as a supplementary bridge instrument and advances three policy recommendations for its institutional adoption.

Keywords: *Quality Matters, AACSB Assurance of Learning, Bloom's Taxonomy, andragogy, graduate business education, Graduate Business Adaptation Framework*

I. INTRODUCTION AND BACKGROUND

Quality assurance in graduate business education operates through two parallel frameworks with no formal mechanism connecting them. Quality Matters (QM), the most widely adopted course quality certification program in American higher education, evaluates online and hybrid courses against a rubric of 44 standards grounded in instructional design best practices (Quality Matters, 2023). AACSB International, the premier business school accreditor, requires programs to demonstrate systematic Assurance of Learning (AOL) processes that produce portfolios of evidence connecting curriculum design to higher-order competency outcomes (AACSB, 2020). Both frameworks inhabit the same institutional space — the graduate business program — yet neither was designed to address the other, and the result is a structural condition in which institutional compliance with both simultaneously provides no guarantee of coherent, integrated quality at the graduate level.

The empirical dimensions of this divide are documented in Narsing (2026, March): 97.7% of QM's 44 standards operate at lower-order cognitive levels — Remember, Understand, Apply — with only Standard 2.5 reaching higher-order engagement. Andragogical alignment across the full rubric is 9.1%. AACSB's own internal analysis identifies Standard 5 (AOL) as the leading deficiency cited in adverse accreditation decisions (AACSB, 2007), and Christensen, Judd, and Nichols (2011) found that more than half of accredited programs were still developing AOL infrastructure years after standards were introduced. Harvey and Green's (1993) foundational taxonomy of quality makes the theoretical source of this conflict clear: QM reflects a perfection-or-consistency conceptualization of quality, while AACSB's AOL framework reflects a transformation conceptualization. These are not incompatible views, but reconciling them requires a translation mechanism that does not currently exist.

The divide carries particular urgency for state-run colleges and universities, which publicly report enrollment data through federal accountability mechanisms, providing a verifiable record of declining working professional participation in graduate business programs across delivery modes — online and face-to-face alike. These learners are the textbook andragogical student: self-directed, experience-rich, problem-centered, and motivated by immediate professional applicability (Knowles, 1984; Merriam, 2001). When course designs certified through QM do not systematically engage them at the cognitive and andragogical levels their graduate standing warrants, the consequences appear in learning outcomes and enrollment simultaneously.

II. THE POLICY PROBLEM

When an institution presents QM certification as evidence of instructional quality during an AACSB peer review, that certification attests to structural course quality — clarity, consistency, and technological accessibility — but provides no evidence of higher-order cognitive alignment. The QM rubric does not require course designers to target Levels 4–6 of Bloom's taxonomy, to structure content around real-world problems, or to build in mechanisms for learner self-direction. These omissions are understandable given QM's origins as a general-purpose instrument across disciplines and degree levels. They become policy-relevant when QM certification is presented within AACSB AOL reporting, where peer review teams require evidence that certified courses advance the analytical, evaluative, and applied competencies that program learning goals specify.

The result is an audit environment in which surface compliance with two respected frameworks can coexist with substantive deficiency in the learning outcomes those frameworks are jointly meant to ensure. Neither QM nor AACSB is responsible for closing this divide unilaterally — each is well-designed for its own purpose. The problem is that no formal mechanism exists to connect their respective domains. Lakhal et al. (2025) demonstrate that structured course-to-program mapping processes produce measurably stronger AOL evidence portfolios, yet AACSB provides no standardized guidance on how that mapping should be conducted. The responsibility falls to individual programs, producing wide institutional variance in AOL quality and persistent peer review deficiencies.

III. THE GRADUATE BUSINESS ADAPTATION FRAMEWORK

The Graduate Business Adaptation Framework, proposed by Narsing (2026, March) and currently under peer review, is designed to bridge this divide without replacing or challenging either QM or AACSB structures. GBAF proceeds through three analytical steps. First, each of the 44 QM standards is mapped against Bloom's Revised Taxonomy to produce a cognitive profile documenting the distribution of lower- and higher-order engagement across the course. Second, each standard is evaluated against Knowles' (1984) five andragogical principles using a 0 / 0.5 / 1.0 scoring protocol, generating an andragogical alignment index. Third, the cognitive profile and alignment index are synthesized into a structured report that connects course-level quality evidence to program-level AOL goals — providing documentation legible to both QM reviewers and AACSB peer review teams.

GBAF requires no modification of existing QM review processes and no new institutional infrastructure. Faculty apply the analysis using the same 44 standards as its input, either concurrently with or following QM review, and the synthesis report integrates into AOL evidence portfolios that AACSB-accredited programs already maintain. This scalability is deliberate: state-run institutions operating under resource constraints require supplementary instruments that work within existing workflows rather than displacing them. The framework's scoring protocols reflect analytical judgments from a single institutional context; replication across diverse program types is needed before generalizability can be established, and the recommendations that follow are calibrated accordingly.

IV. POLICY RECOMMENDATIONS

Recommendation 1: Integrate GBAF as a Supplementary Documentation Tool

Graduate business programs should explore treating GBAF analysis as a natural extension of the QM review cycle. Once a course completes QM review, its 44 standards become the input for GBAF's cognitive mapping and andragogical scoring. The resulting synthesis report, incorporated into the institution's AOL evidence portfolio, transforms QM certification from a standalone compliance document into a contributor to AACSB accreditation evidence — with no new review infrastructure and no disruption to existing workflows. For programs that have invested in QM certification, this approach generates substantially richer accreditation documentation at incremental additional cost.

Recommendation 2: Apply GBAF at the Course Design Stage

Faculty should consider applying GBAF before QM review rather than after, using the cognitive profile and alignment index as diagnostic tools during course development. A design concentrated at lower-order cognitive levels can be enriched — through the addition of higher-order learning activities — before certification is sought, addressing the accreditation vulnerability at its source. Adams (2015) confirms that faculty applying Bloom's taxonomy during course development produce learning objectives more reliably aligned with program-level cognitive requirements; GBAF extends this practice by adding the andragogical dimension as a co-equal design criterion. For programs serving working professionals experiencing enrollment decline, this proactive alignment is both a quality improvement and a learner experience response.

Recommendation 3: Use GBAF in AACSB Self-Study Reports

Institutions preparing for AACSB continuous improvement reviews should use GBAF's synthesis documentation to make explicit the relationship between course-level QM quality evidence and program-level AOL goals within self-study reports. Standard AOL reporting focuses on assessment data at the program level; GBAF provides the course-level cognitive and andragogical narrative that peer review teams cannot otherwise derive from QM certification alone. Fagnot (2023) documents that AOL Standard 5 deficiencies carry reputational costs especially acute for institutions recruiting working professionals in competitive regional markets. A self-study that explicitly bridges QM and AOL evidence using GBAF's structured mapping addresses that vulnerability within the accreditation framework institutions already operate.

V. CONCLUSION

QM certification and AACSB AOL accountability are not incompatible — they are unconnected. That distinction matters because the solution is a bridge, not a replacement. The Graduate Business Adaptation Framework, grounded in the empirical findings of Narsing (2026, March) and in well-established theoretical frameworks, offers state-run graduate business programs a practical, scalable instrument for closing the certification-accountability divide within existing quality assurance structures. Three directions for future research follow: multi-site validation studies to establish GBAF's reliability across institutional contexts; longitudinal studies examining whether adoption improves AOL evidence quality and peer review outcomes; and research testing the relationship between GBAF-informed course design and working professional enrollment and persistence. The divide is real, its consequences are measurable, and the resources to address it are already at hand.

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FOUNDER EDUCATION AND EXIT OUTCOMES

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ABSTRACT

Startup failure rates remain high across industries, prompting researchers to examine which founder characteristics meaningfully predict entrepreneurial success. Education—its level, field, and quality—is often viewed as a key factor shaping a founder's strategic, managerial, and innovative abilities, yet empirical findings are mixed due to small samples, limited educational measures, or insufficient controls. This study addresses these limitations by using a comprehensive dataset from PitchBook to systematically examine whether, and how, founders' educational backgrounds predict startup success or failure. We found that founders who major in STEM are more successful than other majors. More interestingly, advanced degrees don't increase the success rates of the startups.

ADVANCING GENERATIVE AI LITERACY IN MARKETING EDUCATION THROUGH GUIDED CLASSROOM INTERVENTIONS

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ABSTRACT

Generative AI is rapidly reshaping marketing practice, creating pressure for marketing education to move beyond unstructured exposure toward intentional literacy development. This study examines whether guided instructional interventions within marketing courses measurably advance generative AI literacy and reshape student perspectives on professional use. Using a coordinated, multi-course design, structured experiential assignments were implemented across freshman, senior undergraduate, and MBA marketing courses. Pre- and post-course surveys measured changes in AI familiarity, application across marketing tasks, perceptions of accuracy, and ethical awareness. Results indicate that guided interventions significantly increase applied generative AI capability, particularly in marketing applications such as buyer persona development, segmentation, and messaging. Students also demonstrate meaningful attitudinal shifts, including reduced blind trust in AI outputs and increased emphasis on verification and human judgment. The study provides empirical evidence that structured pedagogical integration strengthens both application skills and evaluative reasoning in marketing education.

Keywords: *Generative AI; AI Literacy; Marketing Education; Instructional Interventions; Experiential Learning*

INTRODUCTION

Generative artificial intelligence (GenAI) is rapidly reshaping how marketing professionals generate insights, develop messaging, and analyze customer behavior. Tools such as ChatGPT are increasingly used for content development, market research, customer communication, and campaign ideation, allowing marketers to generate and refine ideas at unprecedented speed (Guha et al., 2023; Ding et al., 2024). As these technologies become embedded within marketing workflows, employers increasingly expect graduates to demonstrate not only familiarity with AI tools but also the ability to apply them strategically and critically.

Emerging evidence suggests that generative AI is less likely to eliminate professional roles than to reorganize them, shifting work toward interpretation, synthesis, and strategic judgment (Lewarne, 2026). Rather than replacing marketing expertise, these technologies amplify the importance of human insight, creativity, and evaluation. This shift presents a significant challenge for marketing education. Students must learn not only how to use AI tools, but how to assess their outputs and integrate them responsibly into marketing analysis and decision-making.

At the same time, many students encounter generative AI informally through personal experimentation or unsupervised use in coursework. While such exposure may increase familiarity with AI tools, it does not necessarily develop the critical judgment required for professional use. Studies of student perceptions indicate that many learners remain uncertain about the accuracy, ethical implications, and appropriate application of generative AI within academic settings (Oregon State University, 2024). Other research suggests that excessive reliance on generative AI tools may reduce independent problem solving and contribute to learned helplessness among some students (Azeem, 2024). Business education organizations have similarly emphasized the need for graduates to develop responsible AI capabilities as part of modern business curricula (AACSB, 2024).

Within marketing education, the challenge is therefore not simply whether AI should appear in the curriculum, but how it should be integrated in ways that reinforce disciplinary thinking. Guided instructional interventions such as structured assignments, scaffolded applications, and reflective activities, may provide a practical mechanism for helping students develop generative AI literacy while strengthening their understanding of core marketing concepts.

To examine this question, this study implemented coordinated generative AI assignments across multiple marketing courses and measured changes in student perceptions and AI application experience using paired pre- and post-course surveys. The paired design allows the analysis to examine changes in students' familiarity with AI, their use of AI across marketing tasks, and their attitudes toward the accuracy and ethical use of generative AI.

LITERATURE CONTEXT

Generative AI technologies are rapidly influencing marketing workflows, particularly in areas such as content development, customer analysis, and campaign planning (Guha et al., 2023; Ding et al., 2024). Rather than replacing marketing expertise, however, AI tools appear to elevate the importance of strategic judgment and human interpretation when evaluating generated outputs (Lewarne, 2026).

Students may experiment with AI tools but lack structured understanding of how outputs are generated, where errors originate, or how results should be critically evaluated. Studies of student perceptions indicate that learners frequently view AI skills as beneficial for career advancement but remain uncertain about responsible use and output reliability (Oregon State University, 2024). Concerns about excessive reliance on AI further highlight the need for educational approaches that emphasize evaluation and judgment (Azeem, 2024).

Frameworks for generative AI literacy emphasize the importance of developing both technical and evaluative competencies. Bender (2025) proposes a literacy model encompassing awareness, application, accountability, and agency, suggesting that students must learn not only how to use AI tools but also how to assess their outputs and apply them responsibly within disciplinary contexts. Research in marketing education further suggests that structured classroom activities requiring students to critique AI outputs can help develop both practical skills and critical reasoning (Beninger et al., 2025; Ding et al., 2024).

METHODOLOGY AND INTERVENTION DESIGN

This study examines the impact of guided generative AI assignments implemented across three marketing courses representing different stages of business education: an introductory marketing course for freshmen, a senior-level strategic marketing course, and a graduate marketing management course. Approximately 25 matched student responses were collected in each section, including two MBA sections, resulting in roughly 100 paired survey responses.

Across these courses, students completed a common experiential assignment designed to integrate generative AI into marketing analysis tasks such as segmentation, buyer persona development, and messaging strategy. Students first applied relevant marketing concepts independently and then used generative AI tools to extend or critique their analysis. In the senior-level and MBA courses, additional assignments required students to summarize academic sources addressing AI accuracy and ethical considerations, followed by in-class or online discussion.

Because survey responses were paired using student identifiers, the analysis focuses on individual-student changes rather than comparisons across different student groups. This design reduces the influence of pre-existing differences in AI familiarity or experience among students. While the study reflects a classroom-based research setting rather than a controlled experiment, the paired design provides a useful way to observe how guided instructional interventions influence student perceptions and applications of generative AI over the duration of a course.

RESULTS

Across all course sections, students demonstrated increased familiarity with generative AI tools following the instructional interventions. The largest improvements occurred in marketing applications directly targeted by the guided assignments, particularly buyer persona development and segmentation and messaging analysis.

Results from the freshman course suggest that the generative AI assignment also helped students bridge the gap between introductory marketing theory and practical implementation. Students frequently used AI tools to translate abstract concepts such as segmentation and target market definition into concrete marketing artifacts, including buyer personas and messaging ideas. In this context, generative AI functioned as a scaffold for applied thinking, helping students operationalize marketing frameworks they had only recently encountered.

Advanced students also demonstrated a more critical perspective on AI-generated outputs, increasingly emphasizing verification and human judgment when interpreting AI-assisted insights. This shift suggests that guided assignments can help students move from simple experimentation with AI tools toward more disciplined and evaluative use.

DISCUSSION AND PRACTICAL IMPLICATIONS FOR MARKETING EDUCATORS

Taken together, these findings suggest that generative AI literacy develops most effectively through guided instructional engagement rather than unstructured exposure. Instructional design plays a critical role in shaping how students learn to apply generative AI within disciplinary contexts.

The findings suggest that generative AI literacy in marketing education develops most effectively when students apply AI tools within structured marketing assignments that require both analysis and critical evaluation.

For marketing educators, one implication is that AI assignments can help bridge the gap between conceptual marketing frameworks and applied marketing analysis. When generative AI tools are used to extend or critique students' own analytical work, the technology reinforces disciplinary learning rather than replacing it.

CONCLUSION

Generative AI presents both opportunities and challenges for marketing education. When integrated through structured assignments, the technology can reinforce disciplinary learning rather than replace it. This study shows that guided instructional interventions can strengthen students' ability to apply generative AI in marketing analysis while also encouraging more critical evaluation of AI-generated outputs.

Students not only increased their familiarity with AI tools but also demonstrated greater emphasis on verification, interpretation, and human judgment. These findings suggest that generative AI literacy develops most effectively when students first apply marketing concepts independently and then use AI tools to expand and critique their analysis.

For marketing educators, the results highlight the value of intentionally integrating AI into marketing coursework. As generative AI continues to reshape marketing practice, helping students develop the ability to use these tools strategically, critically, and ethically will be an increasingly important component of marketing education.

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MEDICIS CORPORATION: A CASE OF PROFESSIONAL ETHICS FOR ACCOUNTANTS AND AUDITORS

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ABSTRACT

The Medicis case centers on a pharmaceutical company that overstated income by estimating sales returns at replacement cost rather than gross sales price, contrary to GAAP requirements. Medicis's generous return policy for expired drugs created significant estimation complexity, yet its auditors, Ernst & Young (E&Y), repeatedly accepted flawed rationales—first relying on an improper "exchange" exception and later adopting an unsupported warranty analogy—to justify the accounting treatment. The PCAOB's 2008 inspection identified the failure to properly account for estimated future product returns and related internal control deficiencies, ultimately leading to a restatement that increased Medicis's returns reserve by tens of millions of dollars and resulted in significant disciplinary sanctions against E&Y and several audit partners, including censure, bars from practice, and a $2 million civil penalty. The case highlights critical ethical failures involving professional skepticism, audit quality review processes, and the responsibility of auditors to resist management pressure when financial reporting departs from GAAP.

The Medicis case provides a rich example of auditors and accountants who did not fulfill their ethical obligations to provide accurate financial statements to the public. The case led to the largest fine from the PCAOB against an auditing firm. Due to the PCAOB investigative actions and subsequent lawsuits against the Medicis Corporation, the case provides rich detail to put the student in the place of the auditors and accountants as they experienced pressure to engage in and allow inappropriate accounting. The case has a difficulty level of 3/5 and is appropriate for a junior or senior level auditing course. The case has also been successfully used in a graduate level accounting research course.

ACCOUNTING CLASSES AND TEXTBOOKS: EXAMINING THE INEFFICIENT AND SUBOPTIMAL APPROACH TO TEACHING TIME VALUE OF MONEY

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ABSTRACT

The fact that money has a time value is one of the most fundamental concepts in finance. This fact has been recognized, with attempts to quantify the exact nature of money's time value, since the Middle Ages.

Due to the importance of this topic, time is devoted to its study in many accounting and finance. However, the approach to teaching the topic can vary quite dramatically between the disciplines.

There are four basic approaches to working time value of money problems: formulas, interest tables, financial calculators, and spreadsheets. Accounting education has historically focused on using interest tables to solve time value of money problems, while finance education has focused on the use of calculators and spreadsheets.

This paper will attempt to illustrate the superiority of the finance approach, which allows instructors and students to work problems more quickly and work a larger variety of problem types all while acquiring or practicing skills that will be useful when students enter the workforce.

THE TRAIL BOSS AND THE LOREWARDEN: RITUAL, MYTHOS AND MAGIC IN ENTREPRENEURSHIP EDUCATION

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ABSTRACT

Experiential learning has long been positioned as a cornerstone of entrepreneurship education, emphasizing learning through doing. This framework has led to the widespread adoption of learner-centered pedagogies that engage students rather than traditional lecture-based instruction. Experiential approaches often take the form of projects, simulations, and practice-based activities designed to approximate real world entrepreneurial contexts. These methods aim to cultivate agency, opportunity recognition, and resilience by placing students in situations where they must make decisions under uncertainty and reflect upon the consequences.

While experiential learning theory explains how students move through cycles of experience and reflection, it pays comparatively less attention to the narrative structures and storyworlds through which those experiences are interpreted and given meaning. This paper offers a conceptual model in which students enter a shared storyworld shaped by rituals, artifacts and diegetic role assignments. Within this world, learners adopt meaningful identities, participate in symbolic practices, and experience entrepreneurial learning as a form of narrative immersion rather than a sequence of disconnected activities. This particular storyworld culminated in the creation of a fully realized board or card game, professionally manufactured as a tangible artifact of the narrative environment.

INTRODUCTION

Entrepreneurship faculty have increasingly embraced experiential methods that rely on engaging activities to help students develop entrepreneurial mindsets and behaviors. Rather than staying with traditional lectures, faculty are focusing more on learning experiences that involve risk, iteration, and decision-making in uncertain contexts. This shift reflects a broader recognition that entrepreneurship is not merely a body of knowledge to be communicated but a set of actions, habits, and thought processes that can be practiced with hands-on challenges. As a result, entrepreneurship educators have adopted simulations, design challenges, and project-based learning to create environments where students can experiment, reflect, and adapt in ways that mirror entrepreneurial reality.

Yet even as experiential learning has become the dominant paradigm, questions remain about how students make meaning from these experiences. Foundational theorists in psychology, communication, and the human sciences have long argued that individuals interpret experience through narrative structures — through the stories they tell, the roles they inhabit, and the meanings they construct. Bruner (1986, 1990), Fisher (1987) and Polkinghorne (1988) each contend that narrative is a primary mode of human understanding, shaping how people organize events, assign significance, and construct identity. From this perspective, experience alone is insufficient because learning depends on the interpretive frameworks that help individuals view their actions within a coherent story.

This narrative dimension has received comparatively little attention in entrepreneurship education. Recent scholarship highlights the value of immersive, participatory environments that allow students to test decisions, explore identities, and engage in structured reflection (Gess et al., 2021). However, few studies examine how storyworlds, rituals, and diegetic artifacts might function as pedagogical mechanisms that help students create meaning within experiential learning. This paper addresses that gap by presenting a practitioner-scholar account of a narrative-driven entrepreneurship pedagogy that integrates experiential learning with storyworld design. Drawing on rituals, roles, artifacts, and lore, the approach creates a coherent narrative environment in which students engage in entrepreneurial behaviors. The FLAIR model (flipped classroom, learning for life, augmented with AI, interaction, reflection) guided the overall methods and philosophy used in the class while Envick's (2023) "Board Game Project" inspired the product theme, Following Envick's suggestion, the class culminated in board and cards games that were professionally manufactured.

The following sections will provide a basic understanding of the theoretical foundations of experiential entrepreneurship education and will map the rituals, artifacts and activities of the storyworld called the "Santa Monica Trail." This imaginary route provides a path from ideation at the Idea Corral to product presentations at Pitch Point and Showdown City, visiting places such as Switchback City, Scouts Overlook, Mechanics Mesa and Bug Basin along the way.

EXPERIENTIAL AND PRACTICE-BASED ENTREPRENEURSHIP EDUCATION

Entrepreneurship education has undergone a significant shift over the past several decades, moving away from traditional lecture-based instruction toward approaches that emphasize action, uncertainty, and iterative practice. Experiential learning models position students as active participants who must navigate ambiguous situations, make decisions, and reflect on outcomes — conditions that mirror entrepreneurial reality. Games and simulations fit into this category as they create structured, low-risk environments in which students can experiment with decisions and consequences.

Despite the importance experiential learning, foundational narrative theorists remind us that experience alone is insufficient without structures that help learners interpret and make meaning from those experiences (Bruner, 1986; Polkinghorne, 1988). This perspective also aligns with constructivist learning theory (Akpomi & Kayii, 2022; Bell & Bell, 2020; Lobler, 2006), which views learners as active meaning-makers who build understanding through experience, interpretation, and social interaction. This narrative perspective reframes learning not only as a cycle of action and reflection (Kolb, 1984) but also as a process of worldmaking, identity construction, and sense-making through story. Bruner (1986, 1990) argues that humans understand experience through narratives and cultural meaning. Fisher (1987) proposes that people reason through stories rather than through purely logical structures. Polkinghorne (1988) similarly contends that narrative is a primary mode of human knowing, shaping how individuals assign significance to events. Together, these theorists suggest that narrative is not merely a communication tool but a cognitive and cultural mechanism through which learners make sense of complex experiences.

This narrative lens has begun to surface in entrepreneurship education, particularly in work examining identity formation, role-play, and signature pedagogies. Gess and associates (2021) argue that entrepreneurship education is moving toward recognizable pedagogical forms that emphasize situated practice and structured rituals. These insights resonate with earlier organizational storytelling research, such as Czarniawska's (1997) work on narrative and institutional identity, which highlights how roles, artifacts, and shared stories shape behavior within social systems. Outside the education realm, gamers embrace immersive narrative and role-playing, co-creating the experience for themselves and other players (Christofferson et al., 2024). Gaming is not just a form of entertainment but an avenue for creativity, self-expression and even education.

Peschl and associates (2020) contend that seven skills are key to entrepreneurship: problem solving, tolerance for ambiguity, failing forward, empathy, creativity, responding to critical feedback and teamwork. Even if students do not start new ventures immediately after graduation, these skills are useful in many realms of work (Kennedy et al., 2023; Mawson et al., 2022). All of these can behaviors and skills can be situated within a storyworld to help students practice these skills in an engaging way. The following section will describe the elements of the Santa Monica Trail, a concrete example of a storyworld specifically designed for entrepreneurship education.

ELEMENTS OF THE SANTA MONICA TRAIL EXPERIENCE

The Santa Monica Trail was developed as an immersive storyworld in which students could practice entrepreneurship skills. This world included different roles/characters, locations, rituals and challenges related to various locations. While the storyworld itself was imaginary, the project the students worked on—a board game or card game—was completely real, following the work of Envick (2023). Unlike a pitch competition for "fantasy" products or companies, the students created a physical product that could be sold soon after the course was completed. Table 1 provides a list of the human and artificial intelligence characters involved in the Santa Monica Trail storyworld.

Table 1 ROLES IN THE STROYWORLD	
Role	Purpose
Game Dogeys	Ideas for games
Wranglers	Students "wrangled" ideas to turn them into products (lead the dogeys to Showdown City)
Trail Boss	Leader/instructor (human)
Loreworden Guy Copilot	AI assistant to the Trail Boss
Trail Whisperer	AI instructor (how to interact with AI)
Whiskey Jack	Dusty Ace character
Big Bill from the Launchbox	Guest speaker (human)
The Man from Back East	Guest speaker (human)
Miss Florence, the Velvet Vulture	Poker expert, Dusty Ace character (human)
Elvis Buckwalter, The Continental	Business professor (human)
Madame Toulouse	International game consultant (human)

The instructor embodied the Trail Boss character who was in charge of the trek along the Santa Monica Trail. Given her experience in theater, she wore a western outfit with signature hat during every class and encouraged the students to do the same, if they desired. Following the FLAIR model, AI was introduced as "Lorewarden Guy Copilot," assistant to the Trail Boss. This Lorewarden became "real" in the minds of some students as evidenced by the fact they asked if the Lorewarden (who held the Queen of Clubs card) could join their table and contribute to their team's poker hand. The "Trail Whisperer" and "Whiskey Jack" were also AI characters but were not acknowledged as such. Students read multiple messages "from" all of these characters. "Big Bill from the Launchbox," "The Man from Back East," and "Elvis Buckwalter, The Continental" were (human) guest speakers. Other characters such as "Miss Florence, the Velvet Vulture" and "Madame Toulouse" were humans who contributed to the class, but did not actually visit due to time constraints. All of these characters were important to rituals used in class and the artifacts created for class and/or used in the rituals (see Table 2).

Table 2 RITUALS AND ARTIFACTS	
Ritual/artifact	Purpose/activity
Place belongings in the Gear Cache	Remove temptation to ignore other students
Play Dusty Ace poker	Meet new people, think strategically
Read, verbally assent to, and sign Wrangler's Pact with a fountain pen in blood-colored ink	Acknowledge the course rules, receive embossed mark showing agreement, experience writing with a fountain pen
Assemble, reflect, write in the Trail Log, talk to the Trail Boss about the log entry	Reflect, write by hand, speak face-to-face, obtain Trail Task Complete stamp
Read *Santa Monica Trail Gazette* newspaper	Obtain information and encouragement
Read the missive from the Trail Whisperer and complete the mission	Open the sealed letter, read, follow directions, bring finished assignment to class
Campfire Council	Talk to teammates about ideas and what was learned by completing the mission assigned by the Trail Whisperer
Showdown City presentation	Present game prototype and request funds to have game manufactured

The “Gear Cache” was the site of perhaps the most significant ritual. Upon entering the classroom, students deposited their belongings, including laptops and cell phones, in the Gear Cache, which was a set of tables in the back of the room. They were allowed to keep only paper, writing utensils and drinks with them at their stables. After the first week, it was no longer necessary for the Trail Boss to remind the wranglers to stow their belongings in the Gear Cache. The prohibition of electronic devices – which were not allowed within ten feet of a stable—was another way in which the FLAIR model was used. Without electronic devices, the students were able to focus their attention on their teammates. They did not need phones or laptops because all content for the course was delivered outside of class in an online textbook and other materials. Wranglers were required to bring their Trail Logs, which were expandable journals assembled in class during the second week. A corresponding ritual was the presentation of these Trail Logs to the Trail Boss to be stamped. After responding to the week’s prompt by writing in their Trail Logs, the students showed the Trail Boss their completed journal entry and told her what they had written (the Trail Boss only skimmed the journal entry, students were required to look her in the eye while they spoke) and answered follow up questions. Given the need to practice writing by hand and using interpersonal social skills to engage in face-to-face conversation, this became a very important ritual.

The Trail Whisperer was a mystic character who wrote “missives” (letters printed on brown old-looking paper) marked by “TW” on the wax seal of the envelope. The letters described missions that the students were to complete and gave them specific instructions for how to interact with their own AI virtual partners in order to carry out the missions. Lorewarden Copilot actually wrote the missives, meaning that AI constructed the instructions telling the students how to interact with AI (suggested prompts) to achieve the desired outcomes. Although the Lorewarden wrote the missives and the Trail Boss printed them out and sealed the envelopes, the artifacts were said to have come from the Trail Whisperer (not acknowledged as AI). The Trail Boss distributed the missives directly to each individual in a type of ritual. It was observed that the wranglers opened the envelopes carefully and took the time to read the missives as though they were personal letters. In completing the missions, students were free to choose their own AI partner (Copilot, Gemini, etc.) and were encouraged to think of the AI as a team mate. In addition to completing missions, wranglers obtained trail-relevant information from the weekly *Santa Monica Trail Gazette* newspaper. Each issue featured columns by the Lorewarden (“Lorewarden’s Ledger”) and the Trail Boss (“Message from the Trail Boss”) as well as contributions by guest columnists such as Madame Toulouse.

CONCLUSION

The Santa Monica Trail provided a storyworld in which students could engage in entrepreneurship while immersed in a old western theme. Following the FLAIR model, the vast majority of instruction (content) was provided outside of class so that students could use their limited time together to collaborate and build relationships. They were encouraged to never be satisfied with what they had done but to continually improve their game based on feedback from others so their final product had been through multiple iterations by the time it was presented as a prototype. Working with AI as a virtual teammate, students could see how AI could help them with practically all aspects of this project. However, AI was to be only one member of the team. Collaborating and developing relationships with other members of the stable was an important theme as working together has been shown to provide positive outcomes in experiential entrepreneurship education (Lackeus, 2020).

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THE VOLATILITY OF TRANSPARENCY: NAVIGATING ASC 321 AND THE MECHANICS OF ASC 260-10

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ABSTRACT

In 2016, the Financial Accounting Standards Board (FASB) fundamentally altered the landscape of equity accounting with the issuance of ASU 2016-01. By requiring that changes in the fair value of equity investments be recognized in net income rather than Other Comprehensive Income (OCI), the FASB aimed to eliminate "earnings management" and provide a more immediate reflection of a firm's economic reality. However, this shift created a symbiotic tension with ASC 260-10, the standard governing Earnings Per Share (EPS). This manuscript examines the theoretical shift from OCI to Net Income, the technical nuances of EPS calculation (including the Treasury Stock and If-Converted methods), and provides comprehensive numerical models to illustrate the impact of these standards on financial statement volatility.

INTRODUCTION

For decades, accounting theory has wrestled with the distinction between "realized" and "unrealized" gains. Historically, the **Available-for-Sale (AFS)** classification served as a buffer. Under the legacy rules, unrealized gains and losses on equity securities were "parked" in OCI, effectively bypassing the Income Statement until the asset was sold (FASB, 2016).

Academic literature, such as the works of **Graham and Dodd (1934)** and later refinements by **Lev (1989)**, emphasized the importance of "permanent earnings" over "transitory gains." However, critics argued that the OCI treatment allowed "cherry-picking", the practice where managers sell appreciated assets to boost earnings during operational downturns while leaving "losers" in the OCI "basement."

The implementation of **ASC 321** was the FASB's response to these transparency concerns. By forcing fair value changes through the income statement, the FASB prioritized **Relevance** over **Reliability** (in terms of earnings stability). The result, famously dubbed the "Buffett Effect," has led to unprecedented volatility in the net income of companies with large investment portfolios (Buffett, 2018).

Earnings per share (EPS) remains one of the most widely used performance metrics in financial analysis, yet its informational content has evolved significantly due to changes in financial reporting standards. In particular, the transition from the traditional treatment of unrealized gains and losses through Other Comprehensive Income (OCI) to the fair-value-through-net-income approach under ASC 321 has fundamentally altered the composition and interpretability of reported earnings. This section examines the historical development of OCI and EPS reporting, the conceptual implications of ASC 321, and the resulting necessity of normalized earnings analysis to distinguish between a firm's operating performance and market-driven valuation effects.

HISTORICAL DEVELOPMENT OF OCI AND EPS REPORTING

The introduction of OCI as a formal reporting construct originated with Financial Accounting Standards Board Statement No. 130, which required firms to report comprehensive income as a broader measure of performance than net income. OCI was designed to capture certain gains and losses—such as unrealized holding gains on available-for-sale securities—that were economically relevant but deemed inappropriate for inclusion in current-period earnings (FASB, 1997). [1]

Earlier, Statement No. 115 established the classification and measurement framework for debt and equity securities, allowing unrealized gains and losses on available-for-sale securities to bypass net income and be recorded in OCI until realized (FASB, 1993).[2] This treatment effectively created what practitioners later described as an OCI "waiting room," where valuation changes were recognized but temporarily excluded from earnings.

In parallel, EPS reporting evolved from APB Opinion No. 15 to Statement No. 128, now codified in ASC 260, which standardized the calculation of basic and diluted EPS and enhanced comparability across firms (FASB, 1997).[3] The objective of EPS reporting was to provide decision-useful information regarding per-share performance, particularly for equity investors.

Subsequent updates, including ASU 2011-05 and ASU 2013-02, increased the transparency of OCI by requiring clearer presentation and disclosure of reclassification adjustments. However, the most significant structural change occurred with ASU 2016-01, codified in ASC 321, which eliminated the OCI treatment for most equity securities and required fair value changes to be recognized directly in net income (Deloitte, 2016). [4]

ASC 321 AND THE "DEATH OF THE OCI WAITING ROOM."

ASC 321 represents a fundamental shift in financial reporting by requiring that unrealized gains and losses on most equity investments be recognized in net income rather than deferred in OCI. This change effectively dismantles the OCI "waiting room" for equity securities and integrates market-based valuation changes into current earnings.[4]

While OCI continues to exist for other components—such as foreign currency translation adjustments, certain hedging activities, and pension-related items—it no longer serves as a primary repository for unrealized equity valuation changes. As a result, net income now incorporates both operating results and fair value fluctuations arising from financial market movements. This shift has direct implications for EPS because EPS is derived from net income rather than comprehensive income. Consequently, the numerator of EPS now includes components that were previously excluded, increasing volatility and reducing the persistence of reported earnings.

RELEVANCE VERSUS EARNINGS STABILITY

The conceptual rationale underlying ASC 321 reflects a broader emphasis on relevance and timely recognition of economic events. Although the Financial Accounting Standards Board conceptual framework emphasizes both relevance and faithful representation, the implementation of ASC 321 introduces a practical tradeoff: increased timeliness at the expense of earnings stability (FASB, 2024). [5]

By incorporating fair value changes into net income, financial statements provide more current information about the value of equity holdings. However, these changes are often transitory and may not be predictive of future operating performance or cash flows. As a result, reported earnings—and by extension EPS—become more sensitive to market volatility rather than solely reflecting the firm's underlying economic activity.

IMPLICATIONS FOR EPS INTERPRETATION

Under ASC 321, EPS increasingly reflects a combination of:

1. Core operating performance
2. Realized investment outcomes
3. Unrealized fair value changes in equity securities
4. Capital structure effects (e.g., dilution)

This aggregation creates a critical interpretive challenge. A rise in EPS may result from improved operating efficiency or from favorable market movements in equity investments. Conversely, a decline in EPS may reflect temporary valuation losses rather than deterioration in the firm's core business. Therefore, EPS no longer serves as a clean proxy for sustainable earning power. Instead, it represents a composite measure that blends operating and non-operating effects, requiring further decomposition for meaningful analysis.

THE ROLE OF ASC 260-10-50 DISCLOSURES

The disclosure requirements under ASC 260-10-50 play a crucial role in enhancing transparency and enabling analytical adjustments. Specifically, firms are required to disclose:

- A reconciliation of the numerators and denominators used in basic and diluted EPS calculations
- The effects of potentially dilutive securities
- Instruments excluded from diluted EPS due to antidilution
- The methods used in calculating diluted EPS (e.g., treasury stock method)

These disclosures allow analysts to disentangle the drivers of EPS and assess the relative contributions of income changes and share structure dynamics (PwC, 2024). [6] In the context of

ASC 321, such disclosures are particularly valuable because they provide insight into how fair value adjustments and capital structure complexities influence reported EPS. Without these disclosures, users may misinterpret EPS movements as indicative of operational performance when, in fact, they are driven by external market factors.

THE NECESSITY OF NORMALIZED EARNINGS ANALYSIS

Given the increased volatility and reduced persistence of EPS under ASC 321, normalized earnings analysis becomes essential. Normalization involves adjusting reported earnings to remove transitory, non-operating, or non-cash components, thereby isolating the firm's sustainable earning capacity.

Key adjustments typically include:

- Removing unrealized gains and losses on equity securities
- Separating operating income from investment-related income
- Adjusting for one-time or unusual items
- Evaluating the relationship between earnings and operating cash flows

The objective is to distinguish between a firm's **ability to generate cash from its operations** and its **exposure to market-driven valuation changes**. This distinction is critical for valuation, forecasting, and risk assessment.

In this context, GAAP EPS answers the question: *What did the firm report under accounting standards?*

Normalized EPS answers the question: *What level of earnings is likely to persist?*

NUMERICAL ILLUSTRATIONS: ASC 321 AND ASC 260 EFFECTS ON EPS

Assume throughout:

- Shares outstanding (basic): 1,000,000.
- Tax rate: ignored for simplicity (focus on mechanics)

DID EPS CHANGE BECAUSE THE INCOME OR SHARE COUNT WAS CHANGED?

Case A: Income change (ASC 321 effect)

Firm holds equity securities:

- Operating income = $5,000,000
- Unrealized gain (ASC 321) = $2,000,000
- Shares = 1,000,000

EPS = 5,000,000 +2,000,000 / 1,000,000=7.00

Next year (market drops):

- Unrealized loss = $(2,000,000)

EPS=5,000,000 −2,000,0001,000,000=3.00

Insight: EPS fell from **7.00 → 3.00**, but **operations didn't change** → Pure **ASC 321 market effect**

Case B: Share count change (ASC 260 effect)
Same income: $7,000,000, But shares increase to 1,400,000 (option exercise):
EPS=7,000,000 / 1,400,000= 5.00
EPS falls **7.00 → 5.00**, even though income is unchanged
✓ ASC 260-10-50 reconciliation reveals cause

- Numerator unchanged
- Denominator increased
-

DID CONVERTIBLES/OPTIONS AFFECT DILUTED EPS?

Example: Stock options (Treasury Stock Method)

- Net income = $6,000,000
- Basic shares = 1,000,000
- Options = 200,000 (exercise price = $10)
- Market price = $20

Proceeds from exercised options: 200,000 ×10 = 2,000,000
Shares repurchased: 2,000,000 /20 = 100,000 Net new shares:
Diluted shares:
1,000,000 +100,000 = 1,100,000
EPS:

- Basic EPS = 6.00
- Diluted EPS = 6,000,000/ 1,100,000 = 5.45

Insight: Dilution reduces EPS even though income is unchanged → Pure **ASC 260 capital structure effect**

WERE SECURITIES EXCLUDED BECAUSE OF WEAK EARNINGS?

Case: Antidilution due to low income

- Net income = $500,000
- Shares = 1,000,000 → EPS = 0.50

Convertible bonds:

- If converted → shares = 1,200,000

EPS= 500,000 /1,200,000 = 0.42

Looks dilutive… but GAAP rule:

If inclusion **reduces loss or increases EPS**, it is **antidilutive**
Now suppose loss:

- Net income = $(500,000)

Basic EPS: -500,000/ 1000,000 = -0.5

Converted EPS: = -500,000 / 1,200,000 = 0.42. EPS improves → **antidilutive → excluded**

ASC 260-10-50 requires disclosure of excluded securities
Key insight:

- Weak earnings → dilution hidden
- Strong earnings → dilution appears

EFFECT OF PREFERRED DIVIDENDS

Example:

- Net income = $5,000,000
- Preferred dividends = $1,000,000
- Common shares = 1,000,000

Income available to common = 5,000,000 −1,000,000 = 4,000,000.
EPS = 4,000,000/1,000,000=4.00

Without preferred stock:
EPS = 5.00.

EPS reduced by **20%**, even though total net income is unchanged, ASC 260 disclosure explains the numerator adjustment.

FUTURE DILUTION OVERHANG

Current period (low earnings):

- Net income = $1,000,000
- Shares = 1,000,000
- Options = 300,000 (exercise price = $25)
- Market price = $20 → out-of-the-money

Options excluded: EPS=1.00

Future period (strong earnings + higher stock price):

- Market price = $40

Now options included:
Proceeds =300,000×25=7,500,000
Shares repurchased: 7,500,000 / 40 = 187,500
Net shares: 300,000 -187,500 =112,500
If income = $5,000,000:
EPS= 5,000,000 /1,112,500} = 4.49
Without dilution: 5000,000 /1000,000 = 5
Hidden dilution emerges only when the firm performs well

BRINGING ASC 321 + ASC 260 TOGETHER

Combined Example
Year 1:

- Operating income = $5M

- Unrealized gain (ASC 321) = \$2M
- Shares = 1M

EPS=7.00

Year 2:

- Unrealized loss = \$(2M)
- Options exercised → shares = 1.2M

EPS = (5M−2M) /1.2M = 2.50

Decomposition:	
Driver	**Effect**
Operating income	unchanged
ASC 321 (market)	−4.00 EPS
ASC 260 (dilution)	−0.50 EPS

NORMALIZED EPS VS GAAP EPS

Remove unrealized gain/loss:

Year 1:

Normalized EPS =5M/1M = 5.00

Year 2:

Normalized EPS = 5M/1.2M=4.17

Comparison:

Measure	Year 1	Year 2
GAAP EPS	7.00	2.50
Normalized EPS	5.00	4.17

Key Insight:

- GAAP suggests collapse
- Normalized shows modest decline

FINAL TAKEAWAY

ASC 321 injects **market volatility into the numerator**, while ASC 260 governs **capital structure effects in the denominator**. The interaction of these two standards transforms EPS into a **hybrid construct**:

EPS=f (Operations, Market Valuation, Capital Structure)

Thus:

- **ASC 260-10-50 disclosures** explain *how EPS was built*
- **Normalized earnings analysis** explains *what part of EPS is economically meaningful*

CONCLUSION

The transition from OCI-based deferral to fair-value-through-net-income recognition under ASC 321 has fundamentally altered the informational content of EPS. While the new framework enhances the timeliness and relevance of reported earnings, it also introduces volatility and reduces the clarity of EPS as a measure of recurring operating performance.

As a result, analysts must move beyond the bottom-line EPS figure and engage in normalized earnings analysis, using ASC 260-10-50 disclosures to unpack EPS components and assess their persistence. Only by doing so can one accurately distinguish between a firm's underlying economic strength and the effects of market-driven valuation changes.

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INVESTOR REACTIONS TO CEO SOCIAL MEDIA COMMUNICATIONS ABOUT GOVERNMENTAL SUPPORT RECEIVED BY THE FIRM

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ABSTRACT

Governmental assistance to US firms is a large and economically significant phenomenon. Yet the U.S. Generally Acceptable Accounting Principles (US GAAP) do not provide guidance on financial reporting for certain types of governmental support to publicly traded firms (such as tax abatements, financial subsidies, or provision of infrastructure). The purpose of this study is to experimentally investigate investor reactions to disclosures of governmental assistance received by the firms. Specifically, this study examines how moral intensity of the issue of governmental assistance to publicly traded firms and CEO social media communication strategies affect investors' perceptions of the firm and investor decision-making. Results suggest that moral intensity of the issue and CEO response strategies significantly influence investors' perceptions of and their willingness to invest in the firm. The findings demonstrate that governmental support to firms raises moral intensity considerations for investors and further highlight the importance of firm social media communication strategies. The results of the study inform regulators, researchers, and market participants. The presentation will provide an overview of the role of moral intensity and firm social media communications in investor decisions, and explain study methodology, process, and results.

Keywords: *Moral Intensity; Governmental Assistance; Financial Disclosure; Social Media; Investor Decisions; CEO Communication Strategy*

THE DARK SIDE OF "ZOMBIE MALLS"

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ABSTRACT

"Zombie malls", or commercial retail properties that continue to operate despite experiencing consistent financial distress, have proliferated in recent years. Extant literature describes the macroeconomic and technological factors resulting in the contraction of the retail sector, but there is little discussion of why the managers of these malls continue to cut costs related to maintenance and infrastructure investment while underlying assets continue to deteriorate. This issue presents an opportunity to examine how managerial incentive structures and monitoring mechanisms interact to influence managers' real investment decisions and cost cutting behavior. We develop a theoretical framework that explains how short-term incentive structures and weak monitoring produce systematic underinvestment, resulting in the destruction of long-term value.

We propose that compensation contracts emphasizing short-term measures of financial health, such as short-term cash flows and net operating income, reinforce managerial focus on cost-cutting at the expense of the long-term preservation of asset values. The effect of managerial incentives is exacerbated in settings where weak external monitoring further reduces accountability. This effect allows the manager to more easily justify these actions, both to themselves and to others, resulting in managers tolerating higher amounts of physical and financial decay before being forced to take corrective actions. Thus, we formalize two theoretical propositions explaining the mechanisms through which managerial incentives and weak external monitoring interact to affect management cost-cutting behavior and tolerance for asset deterioration.

This study advances behavioral accounting and organizational behavior theory by contributing to the literatures concerning managerial incentives, monitoring, and cost-cutting behavior. More generally, the findings extend theories of management decision-making beyond the incentivization of growth and expansion, shining a light on how motivating short-term thinking and lack of oversight result in the long-term neglect and eventual destruction of organizational value.

MANAGEMENT COMPETENCIES IN AN AI-AUGMENTED WORLD

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ABSTRACT

Generative and agentic AI is systematically absorbing the technical tasks that once defined professional preparation across business disciplines. As organizations deploy coordinated networks of autonomous agents capable of executing complex, multi-stage workflows with minimal human intervention, the limiting factor in professional performance is no longer access to analysis — it is the capacity to direct, evaluate, and take responsibility for outputs across hybrid human-agent teams. This paper argues that management competencies — strategic framing, decision-making under uncertainty, organizational influence, stakeholder analysis, and ethical reasoning — are not peripheral outcomes of professional education but foundational ones, and that the shift toward agent-based AI makes their explicit development more urgent, not less. Every discipline preparing graduates for organizational settings should treat this as a shared responsibility rather than assuming such capabilities will develop on the job.

WHEN THE SIDELINE CONTRADICTS THE SYLLABUS: COACHING CONDUCT AND THE LIMITS OF INSTITUTIONAL ACCOUNTABILITY IN NCAA BASKETBALL

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ABSTRACT

Universities articulate commitments to respectful leadership, professional conduct, and accountability through mission statements, student conduct codes, and the leadership curricula taught in their own classrooms. This paper argues that institutional responses to NCAA Division I men's basketball coaching misconduct systematically contradict those commitments, and that this contradiction is not incidental but structurally produced.

Drawing on Argyris and Schön's (1974, 1978) espoused theory/theory-in-use framework, Schein's (1984, 1992) model of organizational culture, and the abusive supervision literature (Tepper, 2000; Edmondson, 1999), we analyze documented coaching incidents at Michigan State, UCLA, UConn, and Kansas State to identify a consistent institutional pattern: behavioral standards function as a variable of competitive performance rather than as operative constraints on senior leader conduct. The costs are measurable—degraded team psychological safety, suppressed organizational learning, and the transmission of a cultural assumption that accountability is outcome-contingent.

For management educators, the implications are direct. Business schools teaching psychological safety, accountable leadership, and professional conduct are housed within institutions whose most publicly visible leadership behavior contradicts each of those constructs in real time. That is not a sports problem. It is a credibility problem, and one that organizational behavior scholars are uniquely positioned to name.

DEVELOPMENT OF LOW TECHNOLOGY HIGH CONTACT SERVICES

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ABSTRACT

The Booz–Allen innovation continuum has long categorized new product development (NPD) according to degrees of newness, yet it was designed primarily for tangible goods and has rarely been reconsidered in service-dominant economies. This paper argues that firms frequently create new services—often unintentionally—when modifying service processes, customer interactions, employee roles, or supplemental offerings. Because services are intangible, inseparable from the provider, variable across encounters, and co-produced with customers, even incremental operational adjustments can materially alter the offering. However, such changes commonly bypass formal new service development (NSD) processes, risk assessment, and systematic evaluation. Drawing on foundational NPD literature, NSD research, and service marketing theory, the paper highlights how the traditional continuum underrepresents service-layer innovation and obscures the strategic risks associated with unrecognized service change.

The paper proposes an expanded conceptualization of the innovation continuum that explicitly incorporates service-layer development and highlights the risks of misclassification. By reframing innovation through a service lens, this research contributes to a more integrated understanding of goods and services and underscores the need for formal NSD processes even in low-technology, high-contact contexts. Recognizing and managing unintended service innovation is essential for mitigating relational damage and sustaining long-term competitive advantage.

JCPENNEY: THE PROBLEMS WITH REPOSITIONING

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ABSTRACT

Repositioning is often presented as a strategic remedy for firms facing competitive decline. However, marketing theory suggests that brand positions, once established and reinforced over time, become cognitively entrenched and resistant to change. This paper examines the longitudinal case of JCPenney to explore the structural constraints associated with repositioning a legacy retail brand. For decades, JCPenney occupied a stable middle-market position characterized by promotional pricing, broad assortments, and value-oriented family appeal. As competitive pressures intensified beginning in the 1990s, the firm initiated multiple efforts to modernize its image, adjust its pricing architecture, and attract new customer segments. Despite substantial investments in merchandising, store redesign, and communication strategy, these repositioning attempts failed to generate sustained belief revision among consumers.

Drawing on theories of brand knowledge, consumer memory, signaling, and expectation-confirmation, we argue that JCPenney's challenges reflect positioning inertia rather than merely managerial miscalculation. Repeated reinforcement of a promotion-driven identity created deeply embedded brand associations that were costly to overwrite and resistant to abrupt change. Furthermore, strategic oscillation between legacy practices and modernization efforts likely weakened credibility and impeded consumer updating. The case illustrates the asymmetric difficulty of repositioning relative to reinforcing existing brand meaning and highlights the conditions under which strong brand equity may constrain strategic flexibility. Implications are offered for managers considering repositioning strategies in mature retail categories and for researchers examining the limits of brand malleability over time.

MAKING FORECASTS ACTIONABLE: A PRACTICAL ACCURACY FRAMEWORK FOR HOSPITAL STAFFING DECISIONS

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ABSTRACT

Effective workforce planning in hospital environments requires integrating forecasting, scheduling, and staffing activities within the Hospital Workforce Forecasting and Allocation (HWFA) cycle and within the larger system of internal and external factors to align labor supply with variable patient demand. While existing literature has extensively examined these components in isolation, little attention has been devoted to understanding the interactions within the complex system. This study begins to address a critical gap by evaluating the relationship between operational decisions and the information exchanged between system components.

Labor demand forecasts serve as actionable information inputs to the scheduling function, focusing on developing interpretable, operationally relevant metrics of forecast accuracy. Using real-world data, the research introduces a staffing bin framework for labor forecasting and measuring forecasting accuracy, focusing on the information's informative value and how it supports managerial decisions.

The staffing bin framework is applied to forecasting and two common forecasting accuracy metrics, creating bin-based measurements, Mean Absolute Error, and Mean Absolute Percentage Error. The study assesses each metric for its informativeness and potential impact on operational decisions. The study applies two key criteria for evaluating forecast-generated information, robustness and interpretability, and demonstrates the superiority of a staffing bin-based metric in satisfying both. Findings indicate that this type of metric provides a reliable framework for quantifying forecast performance and supporting real-time decision-making in labor scheduling. This work lays the foundation for future research on the downstream impacts of forecast quality on scheduling accuracy, staffing efficiency, and overall system performance, and supports the development of standardized performance metrics for integrated labor planning models in healthcare settings.

BRIDGING THE LEAN MANAGEMENT GAP: EXPLORING THE DEMAND FOR LEAN MANAGEMENT SKILLS AND STUDENT PREPAREDNESS

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ABSTRACT

Lean Management is a critical and market-current topic in today's business landscape. In academic circles this topic is extremely underserved with many institutions teaching little to nothing in business or engineering courses. Very few dedicated courses even exist at universities. This gap between academics and the business/engineering marketplace has never been measured or analyzed in detail. This research study will collect three types of data for analysis: topical lean content students are exposed to in their studies (as well as a self-efficacy measurement of their use); topical content available in the academic and business/engineering marketplace; the exposure to lean topics/tools that is expected of new employees by private/pubic sector employers. The data can then be analyzed to quantify the gaps that exist between academic exposure, student knowledge/efficacy, and market expectations with respect to lean management.

THE MODERATING ROLE OF PSYCHOLOGICAL DİSTRESS IN THE RELATIONSHIP BETWEEN ORGANIZATIONAL JUSTICE AND ORGANIZATIONAL CYNICISM

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ABSTRACT

In the global dynamic business life where sustainable competition is constantly increasing its importance, every factor in the work life becomes important. Managing the factors in the work environment increases employee performance and becomes an important part of competitiveness. In this context, managing attitudes such as cynicism becomes a critical success factor. Considering that the most important resource for the organization is the human factor, balancing factors such as organizational cynicism, which is a result of negative attitudes towards the business, and increasing positive attitudes and behaviors within this framework has become an important factor for managers. In this study, the effect of organizational justice on organizational cynicism and the moderating role of psychological distress in this relationship were investigated with a study conducted in the health sector (n=370). The findings revealed that organizational justice dimensions (procedural, distributive, and interactional justice have a negative and significant effect on organizational cynicism (OC). Along with this expected finding, it was determined that psychological distress has no moderating role in the relationships between organizational justice dimensions and cynicism. It is expected that the findings obtained will be useful for health sector managers.

Keywords: *Organizational justice, organizational cynicism, psychological distress, health sector*

INTRODUCTION

The health sector is a sector that plays a critical role in meeting the health needs of societies. The performance of employees in this sector is an important factor affecting the health of individuals and society. Increasing job performance in a sustainable manner is indispensable to improve the quality and effectiveness of health services. There are many antecedent variables that are effective on performance. This study examines the relationships between Cynicism, organizational justice, and psychological distress.

Employees working within an organization may harbor negative attitudes towards the organization for various reasons, such as anger, hopelessness, and disappointment (Çınar et al., 2023). Organizational cynicism is an attitude created in employees when the belief that the organization lacks integrity combines with the reactions caused by these negative emotions. (Abraham, 2000). Organizational cynicism has three dimensions: cognitive, affective and behavioral(Brandes, Dharwadkar and Dean).

The cognitive (belief) dimension of organisational cynicism is the belief that the organisation lacks honesty (Torun and Çetin, 2015: 139). Employees' distrust or disappointment as a result of the experiences against the workplace, society, colleagues and managers is the initial stage of negative belief. The affective dimension indicates that these attitudes stem not only from beliefs but also from emotions, suggesting that cynicism is influenced by negative feelings. Finally, the behavioral dimension is the aspect in which employees reflect their feelings towards organizations through their behavior (Beldek, 2017). With these dimentions negative perspective turns into negative attitudes. Attitutes manifests itself as disliking and being ashamed of the organisation, getting angry, doubting everything and criticising everything. This situation brings along many problems for both the organisation and its employees.

On the other hand, in both social and organisational contexts, organizational justice is a concept that deals with the sharing of all kinds of gains such as tasks, goods, services, opportunities, punishments/rewards, roles, statuses, wages, promotions, etc. among individuals (Cohen, 1987). Employees who think that they are not treated fairly in the organisation may negatively affect the success of the organisation due to this perception.

Lerutla (2000) and Mabitsela (2003) defined psychological distress, one of the variables in our study, as "an emotional state in which there is a need to cope with disturbing, harmful, or irritating situations.". Psychological distress, which is claimed to encompass many mental problems ranging from mild to severe, is defined by Mirowsky and Ross (2003) and Cockerham et al. (2006) as suffering arising from reactions to commonly experienced stressful situations rather than a symptom of illness, and is said to be effective in the continuation of harmful behaviors such as smoking and alcohol, Chalfant and colleagues (1990) defined psychological distress as “a chain reaction of unhappiness, irritability, restlessness, and problems in human relationships.” Within this scope, it is considered that this situation, which appears as a concept that harms social and work life, may play a role in many variables and relationships between variables.

In this study, the relationship between organizational justice and cynicism and the role of psychological distress in this relationship are examined through an empirical study conducted in the health sector with citations from the business literature.

METHODOLOGY

Sample

The population of the research consists of health sector employees in Antalya. The sample of the research consists of subjects selected by simple random method among the employees of health institutions operating in the centre of Antalya. Approximately 3500 people work in these institutions. Taking into account a 5% margin of error within 95% reliability limits from the main mass, the sample size was calculated as 350 people (Sekaran, 1992). In this context, a total of 500 people randomly selected by convenience sampling method were planned to be surveyed. Of the questionnaires sent, 385 were returned and 375 of them were found suitable for analysis. In the extreme value analysis, 5 data sets that violated the normal distribution of the variables were removed and the questionnaire filled by 370 participants was included in the analyses.

In order to measure the organisational justice levels of the employees, the three-dimensional (procedural justice, interaction justice, distributive justice) organizational justice scale (20 items) developed by Moorman (1991) and validated by Niehoff and Moorman (1993) was used.

In order to determine the level of organisational cynicism of healthcare workers, the scale developed by Brandes in 1997 was used in its first version with 14 items. The scale was then revised by Brandes, Dhanwadkar and Dean (1999) and transformed into a 13-item scale by eliminating an item belonging to the behavioural dimension. The scale validated by Karacaoğlu and İnce (2012) was used in this study.

The 8-item dimension consisting of the health concern and dysphoria dimensions of the 20-item scale developed by Chan (2005) to measure employees' psychological distress levels was used as the psychological distress scale. The sleep problem, anxiety, and suicide dimensions were not used. In this study, the version of the scale validated in Turkish by Çelik and Turunç (2010) was used.

Findings

Hierarchical regression analyses were performed to reveal the predictive and moderating relationships between variables. The research model is presented in Figure 1 and CFA findings of the scales used in the research are presented in Table 1.Since the organisational cynicism scale among the research scales did not confirm its 3-dimensional structure, it was included in the analysis by being confirmed as a single dimension.

The hypotheses of the study were developed as follows:

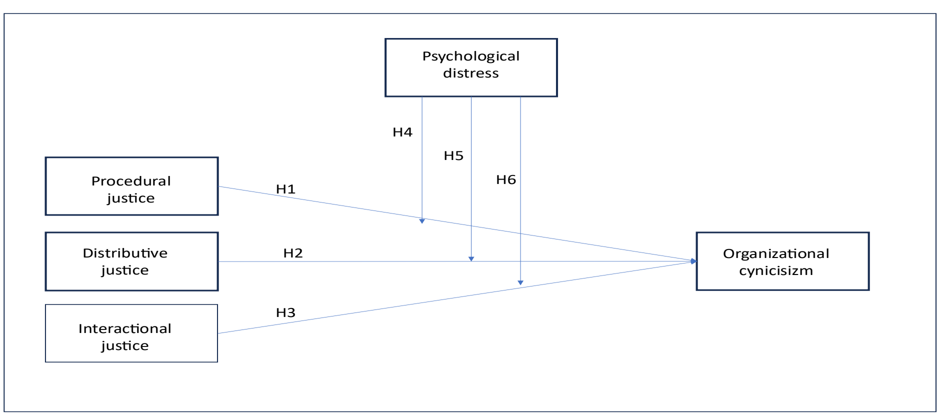

Figure 1: Research Model

Pearson correlations were calculated in Table 1. The results of the analyses show that cynicism has significant relationships with some independent variables.

Table 1. Mean, Standard Deviation and Correlation Values

Variables	Mean	S. D.	1	2	3	4	5
1. Org. Cnycism (OC)	2,76	0,99	(.93)				
2.Psychological distress(PD)	2,20	0,90	-.04	(.92)			
3. Procedural justice (PJ)	2,92	1,21	-.44***	-.03	(.92)		
4. Distributive justice (DJ)	2,86	1,21	-.41***	.06	.71***	(.89)	
5. Interectional justice (IJ)	3,34	1,23	-.47***	-.005	.73***	.69***	(.97)

*$p \leq .05$; ***$p \leq .001$

In this study, which aims to determine the moderating role of the psychological distress, hierarchical regression analyses were conducted to test the hypotheses. In the analysis process, Procedural justice (PJ) , Distributive justice (DJ), Interectional justice (IJ) are included in the model as independent variable, organisational cynicism (OS) as dependent variable and Psychological distress as moderator variable (Table 2). The independent variable and the moderator variable were centralised when they are added to the analysis (Cohen et al., 2003).

Table 2. Hierarchical Regression Analysis Findings

	Org. Cnycism (OC)		
	Step 1	Step 2	Step 3
Variables	β	β	β
Age (A)	-.06	-.06	-.06
Procedural justice (PJ)	-.44***	-.44***	-.44***
Psychological distress(PD)		.-02	-.02
PJ x PD			-.003
R^2	.19	.19	.18
Düz. R^2	.19	.19	.18
F	42,5***	22,5***	16,8***

* $p \leq .05$, ** $p \leq .01$, ***$p \leq .001$

According to the results of Table 2, which includes the analyses conducted in the first stage, it is seen that the relationship between PJ and OC is negative and significant *(β =*--.44; *p≤001*). Thus, ***Hypothesis 1*** was supported. According to these findings, PJ appears as a factor that decreases OC. As a result of these findings, the effect of PD on OC was found to be insignificant (β=-*.02; p>05*). It was determined that PJ did not assume a moderating role in the PJ-OC relationship. According to these results **,*Hypothesis 4* is not supported.**

In the second stage, the moderating role of PD in the DJ-OC relationship was analysed. According to the results of Table 4, which includes the analyses conducted, it is seen that the relationship between DJ and OC is negative and significant (β=-.41; *p≤.001*) as before. Thus,

Hypothesis 2 was supported As a result of these findings, the effect of Psychological distress on OC is also found to be insignificant (β=*-.01; p>05*). As a result of the analyses, it was determined that Psychological distress did not assume a moderating role in the DJ-OC relationship (β=*-.003; p>05*). According to these results ,***Hypothesis 5* is not supported.**

In the last stage, the moderating role of PD in the IJ-OC relationship is analysed. According to the results of Table 4, which includes the analyses conducted, it is seen that the relationship between IJ and OC is negative and significant (β=-.48; *p≤.001*) as before. Thus, ***Hypothesis 4*** was supported As a result of these findings, the effect of Psychological distress on OC is also found to be insignificant (β=-*.01; p>05*). As a result of the analyses, it is determined that Psychological distress is not assume a moderating role in the IJ-OC relationship (β=*-01; p>05*). According to these results ,***Hypothesis 6* is not supported.**

Table 3. Hierarchical Regression Analysis Findings

	Org. Cnycism (OC)		
	Step 1	Step 2	Step 3
Variables	β	β	β
Age (A)	-.03	-.03	-.03
Interactional justice (IJ)	-.41***	-.41***	-.41***
Psychological distress(PD)		.-01	-.01
IJ x PD			.02
R^2	.17	.17	.17
Düz. R^2	.16	.16	.16
F	36,1***	24,05***	18,07***

* *p*≤.05, ** *p*≤.01, ****p*≤.001

Table 4. Hierarchical Regression Analysis Findings

	Org. Cnycism (OC)		
	Step 1	Step 2	Step 3
Variables	β	β	β
Age (A)	-.07	-.07	-.07
Interactional justice (IJ)	-.48***	-.48***	-.48***
Psychological distress(PD)		.-01	-.01
IJ x PD			.01
R^2	.23	.23	.23
Düz. R^2	.23	.22	.22
F	53.09***	35.31***	26.44***

* *p*≤.05, ** *p*≤.01, ****p*≤.001

CONCLUSION

Organizational injustice significantly contributes to the development of cynicism within organizations. A 2025 study on nurses in Turkey concluded that weakening perceptions of organizational justice increased levels of job stress and cynicism (Ağaoğlu et al., 2025). In another recent study, Khan and Firmansyah (2024) concluded that employees experienced less cynicism when they perceived justice, equality, and transparency in the workplace. On the other hand, Köroğlu and Dikmetaş Yardan (2016), in their research in the healthcare sector, determined that there was a negative and statistically significant relationship between employees' perceptions of organizational justice and organizational cynicism. Similarly, Güzel and Ayazlar (2014) also stated that organizational justice negatively affects cynicism. Durrah (2020) revealed that the perception of injustice and employee cynicism significantly affect job alienation. In the study by Gönül and Özdinç (2022), similar to the study by Hussain and Shahzad (2022), it was concluded that organizational justice negatively affects organizational cynicism, but while the dimensions of organizational justice, namely distributive and procedural justice, do not have a significant effect on organizational cynicism, interactional justice negatively affects organizational cynicism. Öztürk et al. (2016) also revealed a negative and statistically significant relationship between organizational justice and organizational cynicism.Our findings are consistent with the mentioned results and show that the negative impact of injustice on organizational trust and attitudes is significant in the health sector in Türkiye.

The results of the research conducted in private hospitals indicate that perceived organizational justice dimensions (procedural,distributive and interactional justice) in the health sector reduces organisational cynicism in employees. This is an expected finding. As a matter of fact, it is a normal finding that procedural,distributive and ineractional justice, which are a positive variable, reduces cynicism, which is a negative organisational variable. Since the decrease in cynicism is an important input for employee productivity, this finding is an important finding.

Another finding of the study is that low and high psychological justice in the sector does not create a significant change in the PJ/DJ/IJ-OC relationships. This finding is an unexpected finding. Because it is known that psychological distress can affects positively or negatively some variables . However, the endeavours of the employees in the health sector are not only related to work and compassion and humanitarian values should also be taken into consideration. It was evaluated that this finding may be caused by the sector. Unfortunately, it was not possible to support the finding since there is no similar research conducted with these variables.

The study has various limitations. The most important of these limitations are that the study was conducted in a single sector and province and the study was not longitudinal. It is considered that longitudinal studies to be conducted in different sectors and different geographies may yield more objective results.

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EVALUATING THE ENVIRONMENTAL IMPACT OF AI DATA CENTERS IN THE UNITED STATES USING A STAGGERED DIFFERENCE-IN-DIFFERENCES APPROACH

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ABSTRACT

The rapid growth of artificial intelligence (AI) has led to an increase in the construction and operation of data centers and large data storage facilities. These data centers consume significant amounts of electricity and water, produce greenhouse gas emissions, and contribute to electronic waste. In the United States, data centers represent a substantial share of national electricity use, with a growing environmental footprint.

This research examines the environmental effects of AI data center deployment across U.S. counties and states over the period 2020 to 2025. The focus is to measure the changes in electricity consumption, carbon dioxide emissions, water usage, and local environmental impacts attributable to the opening of new AI data centers.

A staggered Difference-in-Differences design is applied to estimate the causal impact of data center rollouts. By using differences in timing and location of new data center commissioning, this approach controls for confounding factors and allows for identification of the incremental environmental effects across treated and untreated areas.

The analysis draws on multiple data sources, including:

- *Energy consumption and efficiency reports from the U.S. Department of Energy and Lawrence Berkeley National Laboratory,*
- *Emissions and electricity data from the U.S. Energy Information Administration,*
- *Water consumption data related to cooling from academic and industry studies,*
- *Comprehensive records of data center locations, capacities, and commissioning dates from public and private databases,*
- *Environmental and demographic covariates from governmental datasets.*

The expected findings include quantification of increases in energy and water use, as well as greenhouse gas emissions linked to the expansion of AI data centers. Regional heterogeneity will be explored with respect to electricity generation mix and water resource availability.

This research contributes to understanding the environmental costs of AI infrastructure expansion in the United States. The results will support policymakers in designing strategies for cleaner energy use, improved resource efficiency, and sustainable data center planning.

By integrating econometric analysis with detailed environmental data, this study aims to provide clear evidence on the environmental consequences of AI-driven data centers, aligning technological progress with sustainability objectives.

DIGITAL SOVEREIGNTY AND PLATFORM GOVERNANCE: A COMPARATIVE ANALYSIS OF TWITTER-NIGERIA, XIAOMI-INDIA, AND ASML-CHINA CASES

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ABSTRACT

The intersection of digital platforms, national sovereignty, and cybersecurity policy has become a defining feature of contemporary international technology governance. This paper presents a comparative analysis of three landmark cases: Twitter's suspension in Nigeria in 2021, Xiaomi's asset seizure in India in 2022, and ASML's semiconductor export restrictions targeting China in 2022. The analysis examines how governments employ convergent regulatory mechanisms to assert sovereign authority over foreign technology platforms and critical supply chains. Through a cross-case comparative framework grounded in digital constitutionalism theory and techno-nationalism scholarship, the analysis reveals a coherent global pattern of escalating techno-nationalism. The paper introduces a sovereignty playbook framework comprising forced localization, asset seizure authority, platform regulation, and export controls, strategies deployed consistently across divergent political and legal contexts. Cross-case evidence from sub-Saharan Africa, South Asia, and Western Europe reveals an institutional diffusion pattern rather than isolated geopolitical incidents. The paper identifies three probable futures: market fragmentation along geopolitical lines, fundamental operational restructuring requirements for multinational technology firms, and semiconductor supply chains displacing software platforms as the primary terrain of geopolitical competition. The findings carry direct implications for national cybersecurity strategy, particularly supply chain risk management frameworks governing the acquisition and operation of foreign technology in critical sectors. Implications for international business strategy and multilateral policy frameworks are also discussed.

This paper contributes three findings to international business and technology governance scholarship. First, it provides systematic cross-regional, cross-sector evidence that digital sovereignty conflicts follow structurally convergent patterns rather than isolated triggers. Second, it introduces the sovereignty playbook as a generative analytical framework for anticipating and classifying future conflicts in technology governance. Third, it identifies three probable futures for the global technology order: progressive market fragmentation along geopolitical lines; fundamental operational restructuring requirements for multinational technology firms rendering genuine platform neutrality politically untenable; and semiconductor supply chains displacing *software platforms as the primary terrain of geopolitical competition. Implications for international business strategy and multilateral policy frameworks are discussed.*

Keywords: *digital sovereignty, platform governance, techno-nationalism, technology decoupling, supply chain security, geopolitical risk.*