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TABLE OF CONTENTS

VALUE CONSCIOUSNESS, ENJOYMENT OF MOBILE COUPONS, AND IMPULSE BUYING TENDENCY. EFFECTS ON MOBILE COUPON REDEMPTION INTENTIONS.

Ernesto Gonzalez, Florida National University

ABSTRACT

*This study has two purposes. First, it examines the effects of value consciousness, the enjoyment of mobile coupons, and the impulse buying tendency (IBT) on the intention to redeem mobile coupons from smartphones in a sample of 280 mobile coupon users. The scales used to capture and assess the data are adapted to the context of mobile coupons. The use of structural equation modeling reveals that value consciousness and the enjoyment of mobile coupons affect the intention to redeem mobile coupons in the context of mobile marketing. We also find that the enjoyment of mobile coupons mediates the relation between value consciousness and coupon redemption intention. Second, the data analysis yields an internal factorial structure of both the cognitive aspects (*need satisfaction-based buying tendency, *spontaneity-based buying tendency, and* value secured-based buying tendency*) and the affective aspects (excitement-based buying tendency and* internal conflict-based buying tendency*) of the IBT. We explore the influence of these factors in the relationship between the enjoyment of mobile coupons and intention to redeem, allowing us to expand the theory of the IBT.*

Keywords: Mobile marketing, coupon redemption, consumer behavior, mobile coupon enjoyment, mobile impulse buying.

INTRODUCTION

Mobile phone marketing is defined as the use of mobile phones to provide consumers with time- and location-specific and personalized information to promote goods, services, and ideas. The novel status of the mobile phone as a one-to-one communication device suggests that mobile phone marketing is an innovative form of direct marketing (Mort & Drennan, 2002; Pousttchi & Wiedemann, 2006; Salo & Tahtinen, 2005). It also allows consumers to enjoy the convenience of purchasing products.

Convenience is a well-known motivation that encourages consumers to shop via their mobile devices. This shopping alternative provides a broader selection of opportunities and greater access to information on an online store; further, it allows consumers to compare the offerings of sellers worldwide (Kim, 2002) and enables them to buy around the clock without facing social disfavor and making efforts to obtain delivery. This exposes consumers to rich stimuli and provides them ever-increasing opportunities for impulsive spending (LaRose et al., 2001; Verhagen & Van Dolen, 2011). This communication channel also allows the delivery of relevant and personalized messages and promotions, such as mobile coupons, to target audiences (Watson et al., 2002; Moffett et al., 2002; Trappey & Woodside, 2005).

Mobile marketing uses personal devices, such as mobile phones and tablets, to provide firms with unique possibilities to build and maintain one-to-one relationships with their

customers (Camponovo et al., 2005). The consumers have easier access to products and services to make 24/7 purchases, leading to an increase in impulse buying by them, as well as sales for vendors. This mode of shopping eliminates constraints of time and space usually experienced by consumers when making traditional purchases (Kalakota & Whinston, 1997, p. 219; Eroglu et al., 2001) in a brick-and-mortar shopping environment.

Based on the preliminary evidence of the prevalence of this behavior in the online context, there is always a real opportunity to identify the characteristics of the mobile channel interface that influences impulse buying. Sales promotion tools, such as mobile coupons, are instruments seeking to increase sales of products and brands, usually over a short period (Wierenga & Soethoudt, 2010); this is because they are perceived as a benefit by the consumer, thereby inducing relevant consumer behavior (Yusuf, 2010). Therefore, the use of a mobile coupon as a marketing promotion tool has a positive influence on purchase intention (De Oliveira et al., 2017).

Mobile marketing, which is called the next generation of eMarketing, is becoming more common now. Mobile marketing is growing at a very fast rate because it is considered more cost-effective, personalized, and results-driven. Advertisers are deploying digital coupons on mobile phones, with the aim to identify the original location of consumers and real-time delivery capabilities in a way that makes for a more compelling solution than traditional paper coupons. According to the mobile coupons market report (Cision PR Newswire, 2018), "one of the primary drivers of the market is growth in smartphone and Internet users. With the rise in Internet users, new vendors are providing m-commerce services on cell phones and tablets that will allow users to make instant purchases, resulting in the rise in online purchases through cell phones during the forecast period."

Smartphone penetration continues to rise, and along with it, all the mobile marketing tools. Subscriptions associated with smartphones account for around 70% of all mobile phone subscriptions. Estimates indicate that there will be 5.6 billion smartphone subscriptions by the end of 2019. "The number of smartphone subscriptions is forecast to reach 7.4 billion in 2025, accounting for 83% of all mobile subscriptions" (Ericsson Mobile Report, 2019).

A mobile coupon (m-coupon) is an electronic ticket solicited and delivered on a mobile phone that can be exchanged for a financial discount or rebate when purchasing a product or service. The coupons can carry messages including text, pictures, audio, and, of late, even videos offering value and enjoyment to consumers when they are used to make purchases. The number of mobile coupon users in the US was expected to touch 142.4 million by the end of 2019, constituting more than half of the mobile phone population; further, roughly half of the adults in the US will use a mobile coupon this year—a 9.7% increase over 2017. By 2022, this figure will grow to 57.5% because of sustained higher adoption rates by Internet users (64.6%) (eMarketer, 2018).

Jung & Lee (2010) compared the redemption rates of printed and electronic coupons and analyzed how redemption rates change in each case with the discount offered. E-coupons lead to higher redemption rates because of the following factors: (1) consumers have full control over the coupons to be redeemed in an online context, especially over their favorite brands; (2) this increases coupon providers' financial profitability (Fortin, 2000); and (3) timing affects consumers' processing of advertising information (Mantel & Kellaris 2003). The ability to incrementally redeem a coupon appears to depend upon the extent of consumer heterogeneity in the market in terms of loyalty toward the couponed brand (substitution costs), responsiveness to face values (economic benefits), and disposition toward the type of coupon vehicle (effort costs

and psychological benefits). Additionally, the coupons' distribution method had different impacts on different types of consumers.

Current trends suggest further growth in mobile coupon usage. Moreover, the theory on mobile coupon and consumer behavior has yet to be expanded. Thus, the interest in continuing to research mobile coupon redemption stimulates researchers' eagerness to keep making theoretical contributions to the fields of consumer behavior and marketing. As a promotional tool, coupons have been studied in the bricks-and-mortar context; however, contributions to the online context remain scant. Jung and Lee (2010) found that consumers download and redeem mobile coupons because of coupon issuers' (e.g., service providers and manufacturers) brands, economic benefits, the relevancy of gifts, and competitions. Other factors such as message timing, product category, discount size, discount format, and personalization have also been found to influence mobile coupon redemption rates (Banerjee & Yancey, 2010). Alpar and Winter (2014) studied the performance of print coupons and electronic coupons, finding non-significant redemption rates for print coupons. However, other factors such as the enjoyment of mobile coupons were also found to influence redeeming mobile coupons and their redemption rates. Guimond et al. (2001) found that consumers enjoy using mobile coupons more than just because of the economic benefits. Therefore, it might be worth studying the influence of the enjoyment of mobile coupons as a mediator between the face value/economic benefits/value consciousness of mobile coupons and the intention to redeem.

Some coupon usage studies have applied different psychological approaches to explain how customers respond to coupons as a marketing tool. For instance, Fishbein and Ajzen (1975) and Bagozzi et al. (1992) applied the theory of reasoned action, while other authors have based their studies on the theory of planned behavior to explain e-coupon usage (Ajzen, 1985; Fortin, 2000). The act of redeeming mobile coupons is also considered to be a part of impulse purchasing behaviors. Buying impulsiveness, or the impulse buying tendency (IBT), makes an individual adopt an unplanned and unreactive purchasing method when stimulated by marketing tools (Weun et al., 1998; Beatty & Ferrell, 1998). It thus measures the impulsivity shown by a shopper in both a bricks-and-mortar context and an online shopping context; however, the IBT has not been found to be a predictor or a mediator of the intention to redeem mobile coupons. As mentioned above, when referring to consumers' enjoyment of mobile coupons, the IBT is also worth exploring to expand consumer behavior theory into the mobile coupon context.

This study evaluates how customers' value consciousness, mobile coupon enjoyment, and the IBT impact the intention of redeeming mobile coupons by consumers; it uses a sample of mobile coupon users with smartphones.

Through the evaluation of its hypotheses, this study contributes to consumer behavior and marketing strategies theory and management practices by explaining the direct and indirect (moderating) effects of customers' value consciousness, enjoyment, and IBT on their intention to redeem mobile coupons.

LITERATURE REVIEW

Value consciousness and coupon redemption

Value consciousness is a concern for paying low prices, subject to some quality constraint. (Lichtenstein et al., 1990, p. 56). Value consciousness is derived from the concept of value regularly found in the marketing literature, and it is conceptualized from two points of

view: (1) as a price/economic benefit or face value of the discount, and (2) as an overall utility. As an *economic benefit*, value is defined by Monroe and Petroshius (1981) as the ratio of quality to price and pertains to a specific concern for value received—defined in terms of need-satisfying properties of the product—for price paid by the consumers (Thaler, 1985; Kashyap & Bojanic, 2000). Nickels & Wood (1997) found that coupon face value is a primary determinant of consumers' redemption behaviors. It is associated with sales conversion because consumers can reduce their consumption expenditures; in other words, they save money by using it (Liu at al., 2015).

As *utility*, value consciousness is defined as an overall assessment of the benefit of the product based on what is received and given (Zeithaml, 1988). Utility is conceptualized as a multidimensional construct composed of consumer behavior factors, such as quality, price, search, learning, time, cognitive and physical efforts, social acceptance, emotional response (enjoyment), reputation, psychological risks, and convenience value (Kashyap & Bojanix, 2000; Sweeney & Soutar, 2001; Huber et al., 2001; Petrick, 2002; Pura, 2005; Liu et al., 2015).

Mobile coupons also provide a utility to consumers because of the effect of mobile coupons redemption over the short-term. Considering the promotional incentive time frame, the construal level theory (CLT) explains how the short- or long-term exposure of consumers to stimuli impacts their responses to the face value or brand choices (Blattberg & Neslin 1990; Klein 1985; Leone & Srinivasan 1996; Ward & Davis 1978). The theory states that near-term events are construed via "low-level" concrete features. In contrast, distant events are construed via "high-level" abstract features that may often relate to the inner meaning of the event and its link with one's broader aspirations in life (Liberman *et al.,* 2002; Trope and Liberman, 2003). In other words, responses to stimuli and preferences for them may vary systematically as a function of whether the event is expected to occur in the relatively short term ("near future") or over the longer term ("distant future"). Danaher et al. (2015) found that time of delivery significantly influences redemption and suggested that short expiration length of the mobile coupon help signal time urgency. As a result, people place a higher value on a near-future reward than a distant-future reward (Ainslie & Haslam 1992; Elster & Loewenstein 1992). Because mobile coupons reach people faster, at any time, and from anywhere, they might trigger short-term impulsive purchases, as reflected in consumers' intention to redeem them over the short term.

In the context of mobile marketing, marketing research shows that consumers with higher levels of price/value consciousness, and, thus, more likely to search for a better price, regardless of the level of advertised discount, have a higher intention to redeem m-coupons (Palazon & Delgado 2009; Jayasingh & Eze, 2010).

This study also considers the enjoyment (a component of the utility value) experienced by the consumers when redeeming a mobile coupon. Enjoyment implies the fun, pleasure, and attractiveness (emotional response) perceived by the online shopper from the online experience. It refers to the joy that customers expressed when: clicking on the mobile coupon, reading its content, and experiencing a good purchase deal (Gonzalez, 2016). If consumers perceive the mobile coupon service as enjoyable, they will respond to coupons in a more emotional way. They will exhibit more enjoyment in using coupons than evaluating their economic benefits (Guimond et al., 2001); thus, they may perceive the service as potentially more convenient to use

(Im & Ha, 2014). Therefore, mobile coupons, perceived as providers of value, may positively affect consumer attitudes toward the more rapid adoption of mobile shopping technology (Hsu & Lin, 2008).

Most e-businesses provide visual and exciting mobile marketing advertising and mobile coupons to satisfy customers during their online shopping experience and differentiate themselves from other companies. Because individuals do not find it challenging to learn to use mobile coupons for online shopping, they find the usage process appealing and enjoyable (Venkatesh, 2000; Venkatesh et al., 2002), and underestimate the difficulty in a technological component's ease of use (Celik, 2011). During such instances, perceived enjoyment has been found to be a robust and well-established construct for capturing the affective reactions to an environment (Koufaris, 2002). A higher correlation of enjoyment of coupons with the use of mobile coupons indicates that the pleasure and satisfaction experienced by customers, when finding attractive and enjoyable elements in the mobile promotion, minimizes the impact of the sole economic benefit of cost saving (Garretson & Burton, 2003; Guimond et al., 2001; Liu et al., 2015; Gonzalez, 2016; Saprikis et al., 2017).

However, evaluating the consumers' coupon redemption behavior without discriminating between value consciousness (value concept) and coupon enjoyment (Zeithaml, 1988), for instance, or coupon enjoyment (perceived value concept), means that all these factors are cofounded and correlated; then, the impact of the cost is diffused. Further, its effects on the intention to redeem coupons as an attitude and behavior cannot be clearly described. Some consumers may redeem coupons because of the increase in value rather than a proclivity to respond to the lower price offered in the form of a coupon. As a result, value consciousness should be conceptualized and measured at the psychological level as only one of the constructs affecting the behavior of redeeming coupons, as stated by Lichtenstein et al. (1990). In addition, these authors found that value consciousness explains a significant variation in coupon redemption behavior after one accounts for the change in coupon redemption behavior described by coupon proneness.

As an extension of the results obtained by Lichtenstein et al. (1990) (based on four product-category-specific measures of coupon redemption behavior in stores), our study focuses on testing the impact of value consciousness (concern about paying low prices according to Monroe and Petroshius, 1981) on the intention to redeem mobile coupons context mediated by the enjoyment of mobile coupon (emotional component experienced by the consumers). This study hypothesizes that:

Hypothesis 1a: Value consciousness has a positive impact on the intention to redeem mobile coupons.

Hypothesis 1b: Mobile coupon enjoyment has a positive impact on the intention to redeem mobile coupons.

Hypothesis 1c: Enjoyment of mobile coupon mediates the effect of value consciousness on mobile coupon redemption intention.

Impulse Buying Tendency (IBT) in the mobile purchase context

There are two broad approaches in research on impulse buying: one based on consumption impulse formation and enactment and another based on environmental characteristics. First, consumption impulse formation and enactment (Dholakia, 2000) considers the IBT to be a personality trait that contributes to the formation of consumption impulses. Second, *latent state–trait theory* states that human behavior is dependent on one's traits, environmental characteristics, and the interaction between them (Steyer et al., 1999). Individuals tend to exhibit steady personality traits and behave consistently across situations, but the tendency to buy impulsively differs from person to person (Verplanken & Herabadi, 2001).

However, impulsive individuals may have difficulty in restricting their behaviors and make frequent and consistent impulse purchases in different shopping contexts. Therefore, traits alone are not always a good predictor of behavior, which often depends on how individuals react to specific circumstances in a given context (e.g., state of mind) (Mischel, 1973). However, the state of mind of an individual at any given point is inherently volatile, making it less reliable as a consistent predictor of behaviors (Hertzog & Nesselroade, 1987).

Consumers exhibit different behaviors when making purchases in the bricks-and-mortar and online settings after being exposed to mobile marketing promotions. The decision to purchase by responding to mobile promotions (e.g., mobile coupons) can be a planned or unplanned action when shopping in a physical store, at home, or elsewhere. However, shopping online leads to a higher likelihood of behaving impulsively (Kukar-Kinney et al., 2016) because this setting provides attractive features such as ease of access at lower cost and anonymity for users (Beard, 2005). Unplanned decisions are based on carefree thinking and often caused by affection and emotional status (Govind et al., 2014). Impulse purchasing behavior represents a long-standing enigma for consumer and marketing researchers, and many efforts have been made to conceptualize and measure it (Rook, 1987).

An impulse that regularly manifests itself via an action has a secret origin—buying impulsiveness or the IBT. A consumer's personality traits determine the degree of his/her IBT (Weun et al., 1998; Puri, 1996), internal cues such as emotional states (Donovan et al., 1994; Rook & Gardner, 1993), normative evaluation of impulse buying engagement (Rook & Fisher, 1995), and demographic factors (Wood, 1998). However, the consumer's reactive behavior given by the IBT does not always come from direct visual encouragement; consumers are also suddenly motivated to shop (Rook, 1987). Consumers' personality traits can exemplify impulsive behavior more than other characteristics (Rook & Fisher, 1995; Beatty & Ferrell, 1998; Weun *et al.*, 1998) and can help determine the degree of a person's IBT (Beatty & Ferrell, 1998; Rook & Fisher, 1995).

The IBT in marketing is treated as an essential lifestyle trait for humans (Rook & Fisher, 1995; Rock, 1987; Weun et al., 1998). Individuals show an inherent propensity to engage (or not) in impulsive behaviors (Wells et al., 2011). The IBT is the degree to which an individual is likely to resort to an unplanned, unintended, immediate, distinctive, unreactive, and identifiable way of purchasing (Weun et al., 1998; Beatty & Ferrell 1998). It has been characterized as a conflict between the desire to consume and willpower to resist (Hoch & Loewenstein, 1991). The

IBT thus provides a good measure of the impulsivity exhibited by a shopper in a physical store as well as online. Higher IBT scores trigger more and more frequent impulse purchases online than in a traditional shopping context (Rook & Fisher, 1995).

In addition, external factors affect impulse buying behaviors. External factors are identified as visual encounters with products and/or promotional stimuli (Piron, 1991) such as mobile coupons and mobile advertising. Rook and Hoch (1985) emphasized that buying impulses begin with a consumer's sensation and perception driven by external stimuli and are followed by a sudden urge to buy. With the continuing growth of online shopping, there is greater scope for consumers to engage in online impulse buying. For instance, attractive mobile coupons and the incentive they provide for extra shopping allow online shoppers to make frequent visits to online retail shops, which may raise impulsive buying (Dawson & Kim, 2009).

The IBT relates to two mental states: cognitive and affective. Internal stimuli are processed by consumers affectively and cognitively, resulting in impulsive or non-impulsive behavior. A significant relationship is found between the emotional and cognitive states of individuals and their impulse buying behavior online, or, more precisely, their urge to buy impulsively (Parboteeah et al., 2009). For instance, when online users visit a website, they have both cognitive and affective reactions and these ultimately determine their response (Ozen & Engizek, 2014). Nonetheless, consumers who are more responsive to their affective state than their cognitive one experience a strong urge to buy that manifests itself as a loss of self-control (Moulding et al., 2017); they are also more likely to engage in impulsive buying behavior (Dawson & Kim, 2009; Bellini et al., 2017).

Affective mental states manifest themselves as emotional states such as mood, feelings of pleasure, excitement, joy, contentment, and fear (Ozen & Engizek, 2014). These feelings may also include an irresistible urge to buy, positive buying emotions, and mood management (Coley & Burgess, 2003). When a consumer experiences an overwhelming urge to buy, he/she feels compelled to make an impulse purchase. Consumers might buy products for non-economic reasons such as fun, fantasy, and social or emotional gratification. Therefore, the affective component is related more to feelings and emotions and the impulse purchase might be a way to deal with the emotional shopping environment and use of affective components in marketing campaigns (Dincer, 2010).

On the other hand, cognitive aspects refer to how one understands, thinks about, and interprets information; they can result in unplanned buying tendencies with little cognitive deliberation during shopping (Ozen & Engizek, 2014) and disregard for the future (Youn & Faber, 2000). The IBT is linked to a lack of cognitive control that prevents purchasing on impulse. Higher IBT levels are more likely to be affected by marketing stimuli such as advertisements, visual elements, and promotional gifts. When engaged in in-store browsing, consumers tend to respond more frequently to urges to buy impulsively (Youn & Faber, 2000). These results are consistent with those of previous research that has noted both the affective and the cognitive aspects of impulse buying in traditional shopping behavior (Rook, 1987; Dholakia, 2000; Youn & Faber, 2000).

Additionally, consumers with a buying impulse may not necessarily act on it because certain factors can mediate the relationship between impetus and behavior (Sun & Wu, 2011). In

this respect, Kwak et al. (2006) confirmed that the relationship between the buying impulsiveness trait and impulsive purchase decisions is moderated by subjective norms within a different cultural context as well as by the normative evaluation of impulse purchase behavior (Rook & Fisher, 1995; Peck & Childers, 2006). However, from a hierarchical perspective, Beatty and Ferrell (1998) found that situational variables (e.g., time) and individual difference variables (e.g., the IBT) influence a set of endogenous variables (e.g., affect) and, ultimately, the impulse purchase.

Moreover, Govind et al. (2014) showed that buying impulsiveness traits have a significant moderating effect on the relationship between pleasure and the impulsive buying intention. While the level of satisfaction, experience, and dominance when seeing the product is a substantial predictor of sudden buying intention, the effect is mediated by consumers' impulsiveness traits when purchasing. An enjoyable web store encourages shoppers to spend more time on shopping websites and explore items in which they are interested; moreover, perceived enjoyment grants a sense of confidence, and consumers become emotionally attached to shopping online (Wakefield et al., 2011). As mentioned previously, impulsive consumers are more likely to be sensitive to their emotions and feelings than non-impulsive consumers. The IBT might be a good predictor of impulse buying (Kim & Eastin, 2011) as a behavior in the mobile coupon context; thus, it might be worth exploring the influence of IBT in the relationship between enjoyment of mobile coupons and the intention to redeem mobile coupons by consumers.

METHODOLOGY

Research design

This work aimed to answer the following research questions: How does consumers' enjoyment of mobile coupons mediate between value consciousness and mobile coupon redemption intention? How does impulse buying tendency influence the relationship between enjoyment of mobile coupon and mobile coupon redemption intention? Consumers who use smartphones or tablets for communications and entertainment, are targeted by mobile promotions and advertising to stimulate them to make mobile purchases from in and out home, on the Internet, or in-stores.

The research used an electronic questionnaire to validate four variables: value consciousness, enjoyment, IBT, and the intention to redeem mobile coupons. The research design was developed to test the hypotheses and measures of the variables by conducting an extensive literature review; the questionnaire items were adapted or adopted to ensure the quality of the measurement after being reviewed by three experts to verify the validity of its content and flow. In this study, the value consciousness construct adopted the approach used by Lichtenstein et al. (1990), and it is seen as the concern among consumers about paying low prices and getting the minimum quality expected. So, value consciousness should explain the response of consumers in the form of a redeemed coupon. This study hypothesized that value consciousness, as an exogenous (predictor) variable, would potentially affect the intention to redeem the mobile

coupon by consumers, and it uses the value consciousness 6-item scale in Lichtenstein et al. (1990), but adapts it to the mobile coupon context.

The second scale used in previous studies is mobile coupon enjoyment. The enjoyment is the extent to which the activity of using the computer or mobile devices system is perceived to be enjoyable, apart from any performance consequences that may be anticipated (Davis et al., 1992); their 5-item scale was used to measure enjoyment. Mobile coupon enjoyment was the second exogenous (predictor) variable, and it was expected to affect the intention to redeem mobile coupons.

This study proposed a mediator construct with different mediation paths, through which enjoyment would potentially affect the intention to redeem mobile coupons. The latent mediator variable was the IBT. In the context of mobile marketing, IBT is the degree to which an individual is likely to adopt an unplanned, unintended, immediate, distinctive, unreflective, and identifiable way of purchasing (Weun et al., 1998; Beatty & Ferrell, 1998). Verplanken & Herabadi (2001) suggested a 20-item scale to measure both cognitive and affective components of the IBT; this was used in this study.

The fourth scale—for the intention to redeem mobile coupons—was adapted from Venkatesh & Davis (2000) and Chen & Lu (2011) and contained six items.

The subjects of the study were business students at the Florida National University. The study adopted a sample of business students because students are useful to inspect in terms of their mobile service behavioral intentions given by their overmuch usage of mobile smartphones (Burns, 2005) to fill time with checking emails, making calls, texting, and also use technology for purchasing and entertainment (Thottam, 2005, Kim et al., 2008). The questionnaire contained items related to the variables mentioned earlier, with an introduction detailing the purpose of the study, followed by all the items that were measured through a 7-point Likert-type scale, ranging from 1 (Totally disagree) to 7 (Totally agree). The last part of the questionnaire incorporated questions related to demographics, such as gender, age, income, marital status, family structure, and the frequency of redeeming mobile coupons. The frequency variable used a 3-point nominal scale ranging from 1 (very frequent) to 3 (occasionally). The study was conducted from April 2019 to June 2019.

Data analysis

The data analysis of this study was done in different stages. The first stage was the univariate analysis of the data by performing the normality test, missing values detection, and dataset correction. The second stage was the exploratory factor analysis (EFA) to verify whether the constructs used in the model to test the hypotheses had the same structure as those taken from the theoretical framework proposed by different authors. The third stage was: the confirmatory factor analysis (CFA); the re-specification of the model to obtain a higher model fit, if needed; and the follow-up analysis to assess the indirect effects hypothesized previously. The last analysis evaluated the possibility of getting complete mediation in the full models by assessing the unmediated model (Meyers et al., 2017).

The data were obtained from 382 business students who have made mobile purchases by using mobile coupons on their smartphones or tablets. A total of 297 questionnaires were received (77.7%). Twelve surveys were rejected after being reviewed. The data was entered into an excel datasheet and exported into SPSS v.26 and Amos v.26 for data analysis. The normality test of the univariate variables indicated a departure from the normal distribution. The values of kurtosis and skewness were abnormal. After performing the Kolmogorov-Smirnov and Shapiro Wilk normality tests, the results showed a difference that was statistically significant from a normal distribution. The variables were transformed into z-variables by using the log base-10 function to increase the normality. The results from the transformation yielded an improved kurtosis and skewness values of the variables, resulting in improved normality.

The data analysis process included the identification of data outliers. Five cases were removed from the original sample (135, 171, 241, 248, and 270). The Mahalanobis distance value calculation displayed values equal to or greater than 91.872, which was selected as the critical value of the Chi-square with 54 degrees of freedom. The variance-covariance matrices' homogeneity, measured by Box's test, offered a statistically significant result ($F = 1.517, p < 0.001$); this indicates that there was inequality in the variance-covariance matrices.

Internal structure of constructs and measurement model evaluation

The EFA conducted to identify the multidimensional factorial structure in each construct provided results on expected lines (see Table 1). EFA is a technique part of the factor analysis used to identify underlying relationships between measured variables. The purpose of the EFA is to identify a small number of themes, components, dimensions, or factors underlying a large set of variables (Meyers et al., 2017) specific for the population-data being analyzed.

As expected, the constructs value consciousness, enjoyment, and intention to redeem mobile coupons showed only one component. This result indicated that the data showed sufficient correlation between the variables. Thus, these original scales were kept invariable, as suggested by the literature and previous studies. Each construct resulted in adequate alpha values (with Cronbach's alpha coefficients higher than 0.7, showing satisfactory reliability -see Table 1). It is the most common measure of the internal consistency of a measurement scale. A minimum acceptable value for Cronbach's alpha is 0.70. Below this value, the internal consistency of the items of the scale range is low, which lead to a lack of reliability (Nunnally, 1978). In the case of IBT, the factor analysis test reported an embedded factorial structure in both affective and cognitive components. Specifically, two factors were found for the emotional component and three for the cognitive part.

Table 1
Exploratory factor analysis outcomes

CONSTRUCT	Kaiser-Meyer-Olkin (KMO) Sampling adequacy	Bartlett's test of sphericity	Cumulative variance explained (%)	Cronbach's Alpha coefficient (≥ 0.70, acceptable)
Value consciousness (1 component)	0.804	$\chi^2 = 382.594$, df = 15, $p < 0.001$)	46.589	0.765
Mobile coupon enjoyment	0.780	$\chi^2 = 694.892$, df = 10, $p < 0.001$)	64.504	0.883
Impulse buying tendency (IBT):				
Affective (two factors)	0.861	$\chi^2 = 1070.727$, df = 36, $p < 0.001$)	62.098	0.870
Cognitive (three factors)	0.764	$\chi^2 = 716.867$, df = 45, $p < 0.001$)	63.119	0.710
Intention to redeem mobile coupons	0.885	$\chi^2 = 1388.66$, df = 15, $p < 0.001$)	73.725	0.925

After obtaining the results from the EFA, CFA was conducted to determine whether the hypothesized factor for the affective and cognitive components of IBT, with their associated indicator variables, showed evidence of validity (Meyers et al., 2017). The confirmatory process used Amos (structural equation modeling -SEM) software. The SEM uses various types of models to illustrate the relationships among observed variables and is intended to provide a quantitative test of the theoretical model hypothesized by the researcher (Schumacker & Lomax, 2000).

The indices used to interpret the good fit of the model are goodness-of-fit (GFI), comparative fit index (CFI), normed fit index (NFI), and root mean square error of approximation (RMSA) (Bentler & Bonnet, 1980; Bentler, 1990; Byrne, 1998). The results of the SEM with Chi-square of 46.377, df of 32, and *p*-value < 0.05 (0.048) fitted the indexes for NFI (0.936), CFI (0.979), GFI (0.91) (with values greater than 0.90 as acceptable), and RMSA (0.040, p = 0.726, > 0.05, acceptable); therefore, it helped describe each factor identified within the cognitive component of the IBT construct.

However, the cognitive component of the IBT yielded three factors and these demonstrated eigenvalues above 1.00. Factor one grouped variables 2, 4, 5, 6, and 8 of the cognitive scale used (see the questionnaire). These items referred to the behaviors triggered by the tendency to evaluate criteria that can determine whether thoughtless or impulsive purchase behaviors occur. Thus, factor one was named *the need satisfaction-based buying tendency (NSBT)*. Factor two, with items 3, 9, and 10, referred to spontaneous purchase behaviors. High and low levels of spontaneous purchasing traits characterize upper and lower levels of impulsiveness, respectively; hence, this was called the *spontaneity-based buying tendency (SBT)*. Finally, factor three combined items 1 and 7 of the scale; these items referred to the previous action taken by consumers before redeeming the coupon to minimize purchasing risks and post-purchase dissonance. These items relate to consumers' prior confirmation of feeling

secure about the need for satisfaction through the act of coupon redemption and ensure they have certain information about the purchase conditions such as expected prices before redeeming the coupon. This third factor was named the *value secured-based buying tendency (VSBT)*; this is related to the high or low intrinsic tendency to verify in advance whether a purchase using a mobile coupon provides a good alternative.

On the other hand, the original model for the affective component of IBT yielded two factors. Factor one grouped variables 2, 8, 9, and 10 of the affective scale used. These factors referred to the emotional excitement when looking for a product to purchase. Factor one was labeled *excitement-based buying tendency (EXBT)*. Factor two referred to an internal conflict or a feeling of frustration on not realizing a purchase. This factor was named as *internal-conflict-based buying tendency (INTCONFT)*, and included variables 1, 3, 5, 6, and 7.

The confirmatory factor analysis performed on the affective component of the IBT did not fit the indexes NFI (0.84), CFI, (0.863), GFI (0.88), and RMSA (0.141, $p < 0.05$, not acceptable; Chi-square of 170.284, df of 26, and *p-value* = 0.000). This model was considered a good candidate for re-specification. The modification indices from the confirmatory analysis results showed the possibility of adding the correlation between pairs of error variables within the same factor to improve the model fit. The correlations decrease the Chi-square value and change the parameters (Arbuckle, 2013).

Within factor one (EXBT), the possibility of adding to the model a correlation between almost all the following error-pairs of variables was found: 1-2/1-4, 2-3, and 3-4; within factor two (INTCONFT), it was between 6-9 and 7-8. After adding the correlations for the pairs mentioned, the new model fit parameters indicated that the re-specified model with its standardized coefficients indicated values for Chi-square of 109.569 with 24 degrees of freedom, and $p = 0.001$ (still significant), GFI (0.969), CFI (0.976), and NFI (0.959) were greater than 0.90, which are acceptable; the RMSA value was 0.07 ($p = 0.08$, > 0.05). Thus, the re-specified model has a good fit to the data. In conclusion, it was decided to keep two factors for the affective component of the IBT. Cinjarevic (2010), using the integrative view and role of both emotions and cognition in the impulse buying, found three factors in the structure of the IBT scale. However, our study found five factors, confirming the multidimensional composition of the IBT.

ANALYSIS AND DISCUSSION

Sample characteristics

A total of 297 questionnaires were received (77.7%) from the 382 business students covered. Twelve questionnaires were rejected after being reviewed for completion and correctness, giving a total sample size of 285 (See Table 2).

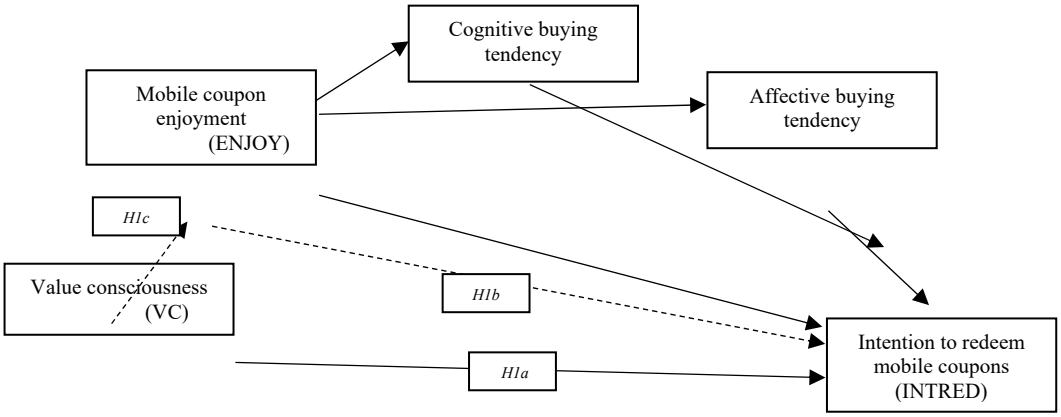
Table 2
Sample characteristics

VARIABLES	Amount	Percentage
Gender:		
Male	116	41.8
Female	164	58.2
Age range:		
18-25		47.4
26-35		37.2
36-45		9.5
46+		6
Status:		58.2
Single		21.8
Married		20
In a relationship		14.7
Single with children		42.1
Single without children		21.4
Couple with children		21.8
Couple without children		
Income:		
Under $10,000		34
$10,000-$20,000		18.9
$21,000-$30,000		17.5
$31,000+		29.5
Mobile coupon redemption frequency:		
Very frequently		41.4
Frequently		37.5
Occasionally		21.1
Total	280	

Research model and hypotheses development

This study suggested the research model hypotheses shown below to answer the research questions mentioned in the research design section (see Figure 1). Structural equation modeling (SEM) was used for measurement validation and modeling to satisfy the initial theoretical model and assumptions. Because many variables were included in this study, we tested different models independently, as appropriate when the model is complex and the research objectives are to make predictions and advance theory (Hair et al., 2011).

Figure 1
Theoretical research model



Testing the mediation of mobile coupon enjoyment between value consciousness and intention to redeem mobile coupons

The first model tested included the predictor variables value consciousness (VC) and enjoyment of mobile coupons (ENJOY) and the effect variable of consumers' intention to redeem mobile coupons (INTRED). The purpose was to test the hypotheses *H1 (a, b, and c)*. *H1a* stated that value consciousness has a positive impact on the intention to redeem mobile coupons, and H*1b* stated that enjoyment of mobile coupons has a positive impact on the intention to redeem mobile coupons. The third sub-hypothesis, *H1c*, proposed that enjoyment of mobile coupons mediates the effect of value consciousness on mobile coupon redemption intention. It is expected that a mediation occurs when the effect of VC on INTRED decreases to zero with enjoyment of mobile coupon in the model (Baron & Kenny, 1986).

The output of the model tested is shown in Table 3. The output showed a very good model fit (GFI = 0.918; NFI = 0.925; CFI = 0.958; RMSA = 0.064, p = 0.028). The unstandardized regression weights showed that the pattern linking the measured variables (VC, ENJOY, and INTRED) to their latent variable was statistically significant. The squared multiple correlations for VC and ENJOY accounted for approximately 70% (R^2 =.699) of the variance of INTRED. However, the direct path from VC to INTRED was not statistically significant (p = 0.332). It is likely that VC affects INTRED indirectly through ENJOY, and the indirect effects were at play in the model. Still, the theoretical background and previous research indicate that VC predicts INTRED in isolation, but the result might be mediated as the model is configured (see Table 3). The full model was then assessed to address this issue via follow-up analysis by applying the Aroian test (Aroian, 1944/1947; Meyers et al., 2017). From the unstandardized path coefficient values in the full model (Table 3), the estimated value from ENJOY to INTRED was 1.038, with a standard error of 0.10.

The Aroian test (Preacher & Leonardelli, 2019) resulted in a *z* score of approximately 2.80 ($p < 0.005$), so the indirect path through ENJOY in the full model is statistically significant; this result brought up the possibility of having observed complete mediation. The unmediated model with VC to INTRED (see Table 4), in the absence of another context, produced a path coefficient that was statistically significant ($p = 0.02$), with an estimate of 0.728 and a standardized error of 0.238. This model showed good fit with GFI = 0.952, NFI = 0.955, CFI = 0.978, and RMSA = 0.056 ($p = 0.275$).

Table 3
Value consciousness and enjoyment to intention to redeem mobile coupon. Regression weights, standardized regression weights

Regression weights			Estimate	S.E.	C.R.	P Label	Standardized Regression Weights
ENJOY	<---	VC	.576	.197	2.932	**.003**	.250
INTRED	<---	VC	.146	.150	.970	.332	.050
INTRED	<---	ENJOY	1.038	.100	10.342	***	.822

*$p < 0.001$

Table 4
Value consciousness and intention to redeem mobile coupons direct path analysis

Regression weights			Estimate	S.E.	C.R.	PLabel	Standardized Regression Weight
INTRED	<---	VC	.728	.238	3.064	**.002**	.254

*$p < 0.001$

The previous analysis suggests a complete mediation, through ENJOY, in the full model between VC and INTRED. However, to verify complete mediation, the level of impact of ENJOY as a mediator variable was evaluated through the Freedman-Schatzkin test (Freedman & Schatzkin, 1992). The Freedman-Schatzkin test uses the unstandardized path coefficients and standard errors of the mediated model (0.146 and 015, respectively) and the unmediated model (0.728 and 0.238, respectively). The Freedman-Schatzkin test yielded a value of approximately 58.57, with degrees of freedom equal to 198; the *t* value applicable to our study, with a reliability of 0.05, was higher than 1.96. Thus, the path between VC and INTRED was significantly lower in the mediated model than the unmediated model.

Because the path in the mediated model was significant, partial mediation was the conclusion. The relative strength of the mediated effect in this portion of the full model was determined as a ratio of the standardized indirect impacts to the standardized direct effects (Meyers et al., 2017). The patterned indirect consequence of VC to INTRED and ENJOY to INTRED was (0.2055/ 0.254) = 0.809 (81%). In an isolated evaluation, approximately 81% of

the effect of VC on INTRED is mediated through ENJOY. Thus, we conclude that *H1c* is supported.

Exploring the influence of IBT between enjoyment of mobile coupon and intention to redeem mobile coupons

The second model of the study featured the IBT, ENJOY, and INTRED. A SEM was used to explore the influence of IBT in the relationship between ENJOY and INTRED. As stated in the theoretical framework section, the cognitive and affective components of IBT as generic factors influencing consumers purchasing decisions have been studied previously. However, the data analysis performed in this study found a factorial composition in each IBT component. It motivated the author to treat each factor as a separate variable to explore and discover specific contributions to the theory of IBT in the context of consumer behavior and lay the foundations for future hypothesis testing.

The internal factorial composition in both the cognitive and affective components of the IBT yielded three factors for cognitive component: *need-satisfying-based buying tendency (*NSBT), *spontaneity-based buying tendency* (SBT), and *value-securing-based buying tendency* (VSBT). Further, there were two factors for the affective component: *excitement-based buying tendency* (EXBT), and *internal-conflict-based buying tendency* (INTCONFT). The output showed a very good model fit (GFI = 0.903; NFI = 0.912; CFI = 0.902; RMSA = 0.075, p = 0.000). Table 5 shows the SEM results.

From the SEM results shown in Table 5, there was a direct and significant effect of ENJOY (p = 0.005) and the IBT factors EXBT (p = 0.021), NSBT (p = 0.017), and SBT (p = 0.02) on INTRED. Even though the exogenous variable ENJOY related significantly with the factor INTCOFT, the latter did not have a significant impact on the variable effect INTRED. It appeared that these three variables mediate the impact of ENJOY on the INTRED. The factor also showing a non-significant impact on all paths between ENJOY and INTRED was VSBT (p = 0.089).

Table 5
Enjoyment, impulse buying tendency, and intention to redeem mobile coupons direct path analysis

Regression Weights			Estimate	S.E.	C.R.	P Label	Standardized Regression Weights
EXBT	<---	ENJOY	2.558	.378	6.774	***	.922
INTCONFT	<---	ENJOY	1.683	.268	6.279	***	.942
NSBT	<---	ENJOY	-.301	.101	-2.988	**.003**	-.231
SBT	<---	ENJOY	1.830	.289	6.337	***	.773
VSBT	<---	ENJOY	.009	.024	.364	.716	.019
INTRED	<---	ENJOY	29.400	10.492	2.802	**.005**	13.552
INTRED	<---	EXBT	-4.134	1.787	-2.313	**.021**	-5.287
INTRED	<---	INTCONFT	-8.114	4.817	-1.685	.092	-6.683
INTRED	<---	VSBT	.324	.190	1.701	.089	.069
INTRED	<---	NSBT	.352	.148	2.378	**.017**	.212
INTRED	<---	SBT	-1.279	.420	-3.043	**.002**	-1.396

*$p < 0.001$

The full model was also assessed to test mediation of NSBT, SBT, and EXBT between ENJOY and INTRED via follow-up analysis by applying the Aroian test (Aroian, 1944/1947; Meyers et al., 2017). First, we tested the mediation of NSBT. The Aroian test (Preacher & Leonardelli, 2019) resulted in a *z* score of approximately 1.80 (< 1.96) (p = 0.07; > 0.05), so the indirect path through NSBT in the full model is not statistically significant; this result brought up the possibility of not having observed complete mediation. The unmediated model with ENJOY to INTRED (see Table 6), in the absence of another context, produced a path coefficient that was statistically significant ($p = 0.000$), with an estimate of 1.035 and a standardized error of 0.102. This unmediated model showed good fit with GFI = 0.941, NFI = 0.959, CFI = 0.97, and RMSA = 0.098 ($p = 0.000$).

Table 6
Enjoyment and Intention to redeem mobile coupons direct path analysis

Regression weights			Estimate	S.E.	C.R.	PLabel	Standardized Regression Weight
INTRED	<---	ENJOY	1.035	0.102	10.181	***	.827

Second, the Aroian test (Preacher & Leonardelli, 2019) to test the mediation of EXBT resulted in a *z* score of approximately 2.16 (> 1.96) (p = 0.030; < 0.05), so the indirect path through EXBT in the full model is statistically significant; this result brought up the possibility of having observed complete mediation. See the unmediated model with ENJOY to INTRED in Table 6. Third, the mediation of SBT yielded a *z* score of approximately 2.71(> 1.96) (p = 0.006; < 0.05), so the indirect path through SBT in the full model is statistically significant also brought up the possibility of having observed complete mediation.

The IBT was configured through several factors of both components, cognitive and affective, and finally, two ingredients (one from cognitive and one from the affective components) confirmed mediation. Regardless of the confirmed mediating effect, the direction of the impact of both SBT and EXBT sub-factors on mobile coupon redemption was negative. From Table 5, the factor EXBT (affective component) showed a higher standardized and negative estimate than the SPNBT factor (the cognitive component).

Theoretical implications

The major result of this study is related to value consciousness in the context of marketing promotions—in this case, mobile coupon redemptions by consumers. When a consumer perceives that a certain amount paid for a product through promotional coupons is beneficial and satisfies his/her purchase expectations, the coupon's face value appears as a determinant of his/her redemption behaviors (Lichtenstein at al., 1990). Using SEM, this study found noteworthy results in the context of mobile coupon redemption by consumers. In particular, it confirmed some aspects of the theory related to traditional promotional coupons, yet applied to mobile coupons, thereby extending the theoretical background on mobile coupons and consumer behavior.

Mobile coupon value consciousness and mobile coupon redemption

Value consciousness has been found to be a strong determinant of coupon redemption in a bricks-and-mortar purchase environment (Lichtenstein at al., 1990). Further, this study found that value consciousness is also a predictor of the redemption of mobile coupons. The path coefficient between value consciousness (predictor) and intention to redeem mobile coupons (effect) proved that the first is a predictor of the second. Of the content of the six-item scale used to measure value consciousness, it emerged that all of them were positive and significant determinants of value consciousness when used as a predictor variable.

Customers, when prompted by a mobile coupon from their smartphones, compare the discounts offered by different brands on the basis of price-per-quantity to ensure the coupon amount is attractive. However, they also examine the benefits the coupon provides (e.g., information about the vendor's service quality) before redeeming it (Liu et al., 2015). The intention to redeem coupons is not only determined by the coupon's face value and its capacity to make the purchase worthwhile. According to the theoretical framework of the intention to redeem mobile coupons, even in the mobile purchasing environment, other factors determine customers' perceived utility from redeeming a coupon to purchase a product. For example, the enjoyment experienced by consumers when redeeming mobile coupons has been shown to be a relevant factor that defines purchases on an electronic device (Guimond et al., 2001; Liu et al., 2015).

This study revealed that when consumers redeem a mobile coupon, it makes them feel good. They like clicking on the coupon to read its text and see what it can offer. This experience provides them with the feeling that they are getting a good deal by obtaining an excellent

opportunity to purchase a product for which they are looking. In short, they enjoy using mobile coupons because they are a source of pleasure regardless of the coupon amount.

Value consciousness and enjoyment, as determinants of purchase intention, have been used to analyze the factors that predict consumer purchases. Using SEM, we showed that value consciousness predicts the intention to redeem mobile coupons. However, when treated in conjunction with the enjoyment of mobile coupons, value consciousness as a predictor of redeeming mobile coupons lost significance. It has been shown that the stimulus used to incentivize a purchase is primarily driven by the face value offered by promotional tools. Further, consumers pay significant attention to such stimuli, and other psychological factors affect the decision to redeem a coupon (Liu et al., 2015); in our study, such a factor was the enjoyment of mobile coupons.

This study found that the influence of value consciousness on the intention to redeem mobile coupons was mediated by the enjoyment experienced by the consumer when receiving the coupon and verifying whether the promotion offered by the coupon is a good deal. The use of the Aroian and Freedman–Schatzkin tests helped find the mediating effect of mobile coupon enjoyment on the relation between value consciousness and the intention to redeem mobile coupons. A direct and significant effect of value consciousness on coupon redemption intention was found when these two were tested in isolation. When value consciousness was tested together with mobile coupon enjoyment, value consciousness showed no significant relation with coupon redemption intention. These tests helped show the mediating effect of enjoyment in the dyadic relationship between value and redemption. Although this mediating effect was weak, it showed that the impact of value consciousness on the intention to redeem mobile coupons was influenced by the enjoyment of mobile coupons experienced by consumers (see Figure 2).

Mobile coupon enjoyment, IBT, and mobile coupon redemption

The second theoretical contribution is related to the influence of the IBT in the mobile coupon redemption context. The IBT has been studied by several researchers, as described in the theoretical section. Despite this, no studies have thus far examined the theory of the IBT by consumers or its impact on the momentum with which consumers decide to redeem a mobile coupon. While the two components of the IBT have been used to study impulsivity in consumer behavior (Cinjarevic, 2010), the present study found an embedded factorial structure in both the cognitive and the affective aspects of the IBT. Reading and interpreting the items used in each impulse tendency component thus allowed us to identify and name these factors.

Influence of the cognitive components of impulse buying tendency

The cognitive component of the IBT contains three factors related to the cognitive nature of the impulsivity consumers experience in their shopping decisions: NSBT, SBT, and VSBT. As stated by Ozen and Engizek (2014), cognitive aspects refer to how one understands, thinks about, and interprets information, resulting in an unplanned buying tendency with little cognitive deliberation during shopping. Hence, we found that the level of cognitive deliberation, when prompted by a promotional stimulus, affects the impulsivity to buy a product.

The results of the study showed that when consumers receive a mobile coupon, they redeem it without having any need to satisfy, without planning to buy the product, and without devoting the time and effort to compare brands before buying the one that meets their requirements. Further, they lack sufficient cognitive awareness of the consequences of making the purchase. They are tempted to buy the product under specific circumstances—a response based on high impulsivity.

Given that the IBT is part of an individual's personality or lifestyle, some people have low and high levels of impulsivity and intended self-control in the shopping environment. Table 5 shows the positive and significant impact of the cognitive factor of the NSBT and mobile coupon enjoyment on the intention to redeem mobile coupons. This table shows that the enjoyment of mobile coupons negatively affects the NSBT, suggesting that the higher the enjoyment experienced by the consumer, the lower is his/her tendency to verify the need satisfaction. This might be because the enjoyment experienced by consumers lowers their engagement in mental effort. If the consumer is convinced that the benefit obtained by redeeming the coupon is high, it will trigger an intent to redeem.

The other cognitive factor with a significant impact on the intention to redeem mobile coupons is the SBT (cognitive component). This showed a negative and significant impact on redemption, meaning that when consumers experience highly spontaneous deliberation, the intention to redeem mobile coupons decreases for different cognitive reasons. First, consumers, even when they experience an urge to buy because of the mobile coupon value, might sometimes find that the coupon's face value benefits are insufficiently attractive; this is likely to restrict spontaneity, thereby making the redemption less impulsive. Second, they might not feel the need for stimulation when prompted by the coupon because they might be in a stable environment without a great desire for change and tend not to purchase impulsively (Lesczyc & Timmermans, 2007).

Third, consumers might experience a low tendency to engage in and enjoy effortful cognitive activities (Kardes et al., 2011) other than paying attention to the coupon's face value. Fourth, they might lack the desire for definitive knowledge to reduce confusion or ambiguity—this is known as the need for cognitive closure (Kardes et al., 2011). Fifth, they may experience higher levels of inhibition when they make purchase decisions. Finally, the intensity of unreflective thoughts may not be sufficiently powerful to allow considered decisions to emerge. In summary, this exciting result requires more in-depth study in future research.

The relationship between enjoyment and the SBT (the second cognitive factor) was positive and significant. Moreover, the impact of the SBT on the intention to redeem mobile coupons was significant but negative, as mentioned above. This shows that higher levels of spontaneity lower the intention to redeem coupons. This might be mitigated by other cognitive or affective factors of the IBT, as highlighted when explaining the negative effect of the SBT on the intention to redeem mobile coupons.

Influence of the affective components of impulse buying tendency

Two factors identified from the affective component of the IBT were the EXBT and INTCONFT. The former showed a significantly positive relationship with mobile coupon

enjoyment and a significantly negative relationship with mobile coupon redemption intention. The latter also showed a positive relationship with mobile coupon enjoyment, but a negative and non-significant relationship with mobile coupon redemption. The theoretical rationale of these affective components might provide directions for future research.

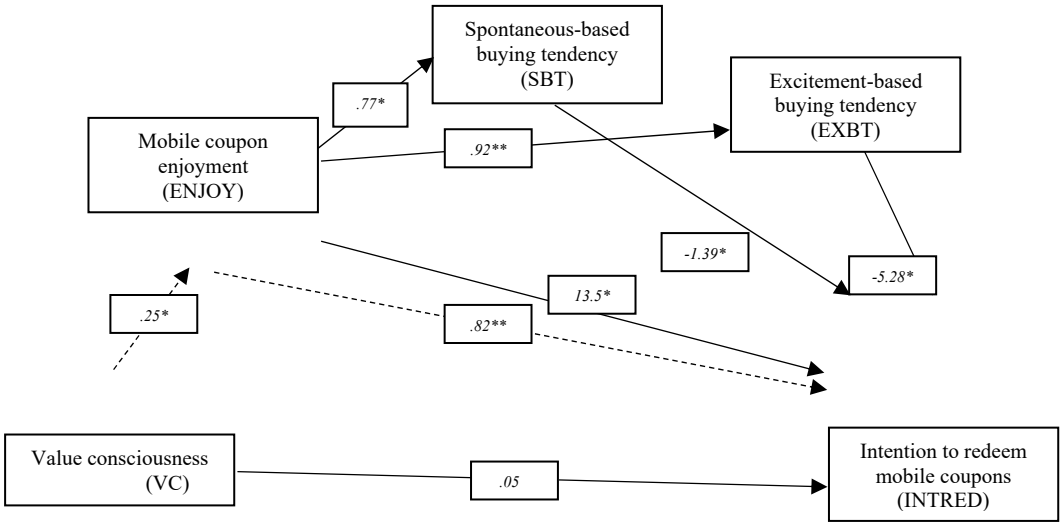
First, the level of internal conflict that consumers experience when deciding whether to use a mobile coupon serves as an internal obstacle. These obstacles might originate from the inevitable struggle experienced by consumers after leaving the beautiful items they saw in an online shop because there is little possibility of purchasing them as well as from the guilt felt by consumers after having bought something that might lead to post-purchase discomfort and a repressed desire if they see something they would like to buy. As a result, they cannot obtain the product when the coupon becomes available to them; therefore, a conflict arises from the difficulty of not being able to take advantage of a bargain. Nevertheless, the absence of internal conflict is expected to increase the enjoyment experienced by consumers because, as negative feelings, their enjoyment might not be repressed owing to non-existent obstacles that impede a pleasant shopping experience.

Second, a high correlation was obtained between the EXBT and enjoyment/redemption intention. As mentioned in the data analysis, the EXBT, an affective factor, refers to the emotional and exciting experiences consumers enjoy when looking for a product to purchase using mobile coupons. This result was similar to that found with the SBT (a cognitive factor) mentioned previously. Although the EXBT had a positive and significant relationship with mobile coupon enjoyment, its impact on the intention to redeem mobile coupons was significant but negative. When consumers cannot suppress the feeling of wanting things they see in online shops, they make reckless purchases. Moreover, when they sometimes buy things because they expect high enjoyment rather than because these products are needed, they might not experience high levels of excitement when purchasing a product impulsively.

In contrast to our expectations, this study showed that a higher EXBT negatively impacted the intention to redeem mobile coupons. Consumers might enjoy making purchases using mobile coupons, so the EXBT might reinforce positively or negatively the intention to redeem mobile coupons. A possible explanation is that the affective factor might be influenced by other psychological factors present when consumers decide to redeem a mobile coupon, which lowers the intention to redeem.

In general, this study found that the EXBT (affective component) and SBT (cognitive component) significantly influenced the effect of mobile coupon enjoyment on the intention to redeem mobile coupons. However, the affective side of the IBT seems to be dominant according to this study's results on redeeming mobile coupons; this is in line with the results of Ozen and Engizek (2014), who posit that e-impulse buying is strongly related to hedonic and emotional motivations (see Figure 2).

Figure 2
Final research model



$p^* < 0.05$, $p^{**} < 0.001$

Table 6 briefly shows the outcome of analyzing the hypotheses that supported this study.

Table 6
Hypotheses results

Hypothesis	Result
H1a: Value consciousness has a positive impact on the intention to redeem mobile coupons.	Supported
H*1b*: Mobile coupon enjoyment has a positive impact on the intention to redeem mobile coupons.	Supported
H1c: Value consciousness explains a significant amount of variation in mobile coupon redemption intention after one account for the variation in coupon redemption behavior explained by coupon enjoyment.	Supported

Managerial implications

The results obtained in this study have practical implications. Any business implementing e-marketing strategies such as mobile coupons should know as much as possible about their effectiveness as a promotional tool. Customers respond to marketing stimuli because they are sufficiently attractive to satisfy their needs during the shopping process. Therefore, highly attractive mobile promotions can have the inadvertent effect of minimizing impulse purchasing behavior (Ghose et al., 2019).

Mobile coupons are gaining in popularity because they can be used to target consumers through mobile devices, which have become a necessary tool for communication and purchase. The intention to redeem mobile coupons through mobile devices such as smartphones is impelled by (1) the discount offered by the coupon compared with the purchase price of the product and (2) the enjoyment consumers experience when using the mobile coupon to make purchases. Consumers pay attention to attractive coupons (coupon features) and the benefits the mobile coupon provides (e.g., enjoyment and emotions). This result is useful for managers interested in designing attractive mobile coupons to boost sales.

The intention to redeem mobile coupons is also determined by consumers' impulsivity when they receive the coupon and their willingness to redeem it. The IBT is an indicator of how successful mobile coupon redemption will be. Customers respond to a discount because of the value it offers, the level of enjoyment it provides, the excitement generated when receiving a coupon offer, and the spontaneity and need satisfaction reactions that arise in the process leading to coupon redemption. Thus, managers should know that mobile coupons stimulate purchases based on the cognitive and affective elements of the IBT present when consumers are targeted with mobile coupons.

Given the strong influence of leisure time and time available for both in-store and e-store browsing, managers can influence consumers by using more aggressive stimuli to leverage on urges and impulse purchases. Managers can mix the enjoyable features of mobile coupons with positive emotions to expand browsing time and create a positive shopping experience. They can also change consumers hesitant to use mobile coupons into more decisive consumers by reinforcing mobile coupons' effectiveness with enjoyable triggers to stimulate purchases and increase purchasing frequency. In addition, managers can target consumers based on their emotional and cognitive impulse tendencies, characteristics, and perceptions of the value of mobile coupons to predict potential purchases.

LIMITATIONS

This study has some limitations. First, the results lack generalizability, even though the sample consisted of Florida National University students familiar with the mobile coupon context and experienced in making purchases on electronic devices. Although we performed missing data analysis, data analysis has its inherent limitations (e.g., subjects may provide incomplete and/or inaccurate information when filling out surveys).

Second, we collected data through an online questionnaire. This method did not include those consumers who do not use smartphones for purchasing, especially older consumers or the smartphone illiterate. Third, value consciousness related to perceived value and mobile coupon enjoyment were used as original predictors of the intention to redeem mobile coupons. Besides

these two factors and the IBT, no other factors were taken into consideration in this study, thereby limiting our conclusions on mobile coupon redemption theory. After identifying the sub-factors of the cognitive and affective elements using the EFA (confirmed by the CFA), we decided to use them as part of the model to expand theory.

Fourth, the demographic variables adopted in the study to characterize the sample were not used to achieve more far-reaching outcomes. The study did not emphasize differences by gender, age, or other demographic variables as moderators or mediators of the impact of value consciousness, enjoyment, and the IBT on the intention to redeem mobile coupons. Although the demographic variables and behavioral variables (mobile coupon redemption frequency) were used to characterize the sample, they were not adopted to draw further conclusions.

Fifth, we used SEM to analyze, interpret, and test the effects and hypotheses. However, SEM does not allow researchers to define the direction of causality. Further, although structural models are easy to set up and estimate, their outcomes should be viewed with certain skepticism because of a number of difficulties (Bentler & Chou, 1987). The first difficulty is that although the sample used in this study comes from a population relevant to the theoretical concepts being evaluated, which is a condition for reliability when using SEM, the study could not assure that the responses given by subjects were from simple independent observations. Students responded to the questionnaire via email, and we could not confirm that they responded to the questions in isolation; therefore, we could not verify whether the responses given by one student were influenced by another (Bentler & Chou, 1987).

The second difficulty is that SEM compares the model with the empirical data and yields the effects among the variables. Although SEM can represent causal relationships, a well-fitting SEM outcome does not necessarily contain information on causal dependencies (Nachtigall et al., 2003). This difficulty might explain why this study found a contradictory result regarding the significant direct effect of value consciousness on the intention to redeem mobile coupons. However, this effect became non-significant when enjoyment mediated the effect between value consciousness and intention. Researchers wanting to test causality should therefore review the approaches to causation provided by Rubin (1986), Holland and Rubin (1988), and Pearl (2000).

Also, the present study found that although value consciousness exerts a significant influence on the intention to redeem mobile coupons when the enjoyment of mobile coupons is present in the model. However, the portion of the research model evaluating the influence of enjoyment of mobile coupons and impulse buying tendency on the intention to redeem mobile coupons showed an apparent issue of misspecification. Since a model is only an approximation to the truth, it is common to inevitably encounter problems with it (Hayashi & Yuan, 2011).

DIRECTIONS FOR FUTURE RESEARCH

Based on the results of this study, new research might be carried out to develop the theory of consumer behavior in the context of mobile coupon redemption as a marketing tool. It is suggested that future studies inquire into the moderating and mediating effects of other consumer behavior variables such as trust on value consciousness to visualize the nature of its impact on the intention to redeem mobile coupons.

Future studies should also consider segmentation variables (gender, age, and income) to discover more details about mobile coupon redemption. The IBT, in the context of mobile coupons where gender and other demographic variables seem apparent, deserves more attention. Both the cognitive and the affective components of the IBT have received attention (Rook, 1987; Dholakia, 2000; Youn & Faber, 2000; Coley & Burgess, 2003; Ozen & Engizek, 2014). Therefore, we recommend the creation of more in-depth knowledge about the cognitive components of the IBT, along with other concepts such as the need for stimulation and cognitive closure. Because cognition requires a person to make more mental effort, it is burdensome; hence, it would be interesting to expand the theory on cognitive IBT and its impact on redeeming mobile coupons.

New studies could further investigate the personality traits linked to the IBT and their impact on actual redemption behaviors, instead of just intentions. Moreover, because the perceived value of mobile coupons had a positive impact on the intention to redeem them, perceived value might be studied in conjunction with perceived acquisition, transaction values, and changes in coupon-using habits. New research in this direction would produce more information to explain how perceived value affects both intended and actual mobile coupon redemption.

SUMMARY

In the marketplace, the value of products to consumers is based on the ratio of quality to price and the economic benefits or face value of the discount; this is defined as value consciousness. Value consciousness pertains to a specific concern about the value received in terms of satisfying the properties of the product for the price paid by consumers (Thaler, 1985; Kashyap & Bojanic, 2000). If consumers perceive that the value of a mobile coupon satisfies their expectations in terms of receiving quality commensurate with the amount paid, they might redeem the coupon. Nevertheless, value consciousness also encompasses the overall utility obtained from using the coupon and is related to such concepts as search, learning time, cognitive and physical efforts, enjoyment, price, and quality (Liu & Zhao, 2014). This conclusion is also valid for the mobile coupon redemption intention context in which customers are willing to redeem mobile coupons when they find an expected value for the amount to pay.

This study confirms that the enjoyment customers experience when making online purchases on e-devices is a determinant of mobile coupons being redeemed. Enjoyment had a direct and positive effect but also indirect effects that partially offset that positive effect on the intention to redeem mobile coupons. As mentioned above, enjoyment is part of the overall assessment customers make of the utility arising from what is received and given; further, as part of perceived utility, customers show enjoyment as an emotional response as well as evaluating the economic benefits. Therefore, a lack of enjoyment may mitigate the effect of the benefits that mobile coupons intend to provide to customers, leading them to possibly refuse to redeem.

This study also found that the impact of customers' value consciousness on the intention to redeem mobile coupons is mediated by the level of enjoyment they experience when prompted by mobile coupons before, during, and after shopping. We therefore confirmed the results of previous studies of the impact of value consciousness and enjoyment on the intention to redeem

coupons (Linchestein et al., 1990; Guimond et al., 2001; Garretson & Burton, 2003; Palazon & Delgado, 2009; Jayasingh & Eze, 2010; Liu et al., 2015; Gonzalez, 2016; Saprikis et al., 2017), when these variables are measured in isolation.

Although the topic considered here has been studied before (Ozen & Engizek, 2014) in the online context, this study found that the IBT influences the relationship between the intention to redeem mobile coupons and one of its determinants—the enjoyment customers experience when doing so. By performing EFAs and CFAs, the study identified a new factorial composition in both the cognitive components (NSBT, SBT, and VSBT) and the affective components (EXBT and INTCONFT) of the IBT and their influence on enjoyment and intention to redeem mobile coupons. Previous research motivated us to delve into the internal composition of the cognitive and affective factors to find the sub-factorial structures to extend the theory. Specifically, one factor from the cognitive component (SBT) and one from the affective component (EXBT) significantly influenced the relationship between enjoyment and intention to redeem mobile coupons.

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APPENDIX
Questionnaire used in the study

Constructs	Adapted from:
Value consciousness	Lichtenstein et al. (1990)
I am very concerned about low prices, but I am equally concerned about product/service quality	
When doing online shopping, I compare the prices of different brands to be sure I get the best value for the money	
When purchasing a product/service, I always try to maximize the quality I get for the money I spend	
When I buy products/services, I like to be sure than I am getting my money's worth	
I generally shop around for lower prices on products/services, but they still meet certain requirements before I will buy them	
When I shop, I usually compare the "price per quantity" information for brands I normally buy	
Impulse Buying Tendency -Cognitive component	Verplanken & Herabadi (2001)
I always check prices at the Web site to be sure I get the best value for the money I spend	
I usually only buy things that I intend to buy.	
If I buy something, I usually do that spontaneously.	
Most of my purchases are planned in advance.	
I only buy things that I really need.	
It is not my style to just buy things.	
I like to compare different brands before I buy one.	
Before I buy something, I always carefully consider whether I need it.	
I am used to buying things ´on the spot´.	
I often buy things without thinking.	
Impulse Buying Tendency -Affective component	Verplanken & Herabadi (2001)
It is a struggle to leave nice things I see in an online shop.	
I sometimes cannot suppress the feeling of wanting things I see in online shops	
I sometimes feel guilty after having bought something.	
I'm not the kind of person who ´falls in love at first sight´ with things I see in online shops.	
I can become very excited if I see something I would like to buy.	
I always see something nice whenever I pass by online shops.	
I find it difficult to pass up a bargain.	
If I see something new, I want to buy it.	
I am a bit reckless in buying things.	
I sometimes buy things because I like buying things, rather than because I need them.	
Mobile Coupon Enjoyment	Davis et al., 1992
Redeeming mobile coupon would make me feel good	
I would enjoy clicking on the mobile coupon to see its content	
If I use mobile coupons, I feel that I am getting a good deal	
I would enjoy using mobile coupons, regardless of the amount I save by doing so	
Beyond the money I save, redeeming mobile coupons would give me a sense of joy	
Mobile Coupon Redemption	Venkatesh & Davis (2000); Chen & Lu (2011).
I will search mobile coupons on the Internet for later usage	
I will obtain mobile coupons on the Internet for later usage	
I will intend to download mobile coupons for later usage	
I will intend to use mobile coupons in doing my shopping	
I will intend to get more details about mobile coupons	
I will intend to use mobile coupons if they offered to me	

THE MEDIATNG ROLE OF JOB EMBEDDEDNESS ON SEARCH BEHAVIOR INTENTIONS

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ABSTRACT

Job embeddedness is an important area of research given its connection to employees' willingness to search for another job and turnover. However, the antecedents of job embeddedness are less known. This study, using a sample of 225 retail buyers, expands current research by examining the mediating role of job embeddedness with organizational identification, perceived organizational support (POS), organizational justice, and search behavior. The results indicate that job embeddedness is an important mediator variable.

INTRODUCTION

Managing turnover is an important concern for organizations because of its potentially harmful costs (Hancock, Allen, Bosco, McDaniel, and Pierce, 2013; Heavey, Holwerda, and Hausknecht, 2013; Kacmar, Andrews, Van Rooy, Steilberg, and Cerrone, 2006). The costs of replacing an employee (recruitment, selection, and training) can be substantial ranging from 60 to 200 percent of an employee's salary (Allen, Bryant, and Vardaman, 2010; Sunder, Kumar, Goreczny, and Maurer, 2017). In addition, turnover has been shown to have a negative relationship with firm performance (Kacmar et al., 2006) including decreased customer service (Hausknecht, Trevor, and Howard, 2009). Thus, the fact that turnover has been a major area of study for many years (Hom, Lee, Shaw, and Hausknecht, 2017) is not surprising.

While many studies have tested models of turnover, their ability to predict turnover variance is only about 25 percent (Lee, Hom, Eberly, Li, and Mitchell, 2017). Given the situation, Mitchell, Holton, Lee, Sablynski, and Erez (2001) proposed a new construct, job embeddedness, to better predict turnover. Job embeddedness is defined as the "extent to which people feel attached, regardless of why they feel that way, how much they like it or whether they choose to be so attached" to an organization (Crossley, Bennett, Jex, and Burnfield, 2007, p. 1032). It involves both internal and external forces tying employees to their job (Crossley et al., 2007).

While recent research has shown that job embeddedness is an important predictor of turnover (e.g., Crossley et al., 2007; Felps, Mitchell, Hekman, Lee, Holtom, and Harman, 2009; Jiang, Liu, McKay, Lee, and Mitchell, 2012; Porter, Posthuma, Maertz, Joplin, Rigby, Gordon, and Graves, 2019), much less is known concerning antecedents of job embeddedness. The purpose of this study is to investigate the relationship between job embeddedness and three antecedent variables: organizational identification, perceived organizational support (POS), and organizational justice. Each antecedent variable has been included in many studies. However, they have rarely been included in studies of job embeddedness (Allen and Shanock, 2013; Collins and Mossholder, 2017; Ng and Feldman, 2014; Nguyen, Taylor, and Bergiel, 2017) and never been included together in a study involving job embeddedness. Thus, the purpose of this

study to expand prior research by analyzing the relationship among organizational identification, POS, organizational justice, job embeddedness and search behavior with a sample of retail buyers.

LITERATURE REVIEW

Organizational Justice

Organizational justice examines employees' perceived fairness in the workplace. Three types of justices have been identified in the literature (Colquitt, 2001): distributive (the perceived fairness of outcome allocation), procedural (the process by which rewards are allocated) and interactional (the interpersonal treatment employees obtain from management). While all three types of justices are related significantly to various outcomes (Colquitt, Scott, Rodell, Long, Zapata, Conlon, and Wesson, 2013), the focus of this study is on distributive justice and procedural justice.

Distributive Justice

Distributive justice is derived from Homan's (1961) and Adams' (1965) work regarding equity theory. According to equity theory, employees are motivated by fairness. Employees expect to receive rewards based on their investments and the amount of effort they put forth. To determine fairness in the workplace, an individual compares his or her input/ratio to another employee (a referent other) inside or outside the organization. The employee compares the amount of effort or input (e.g., education and seniority) put forth with the output received (pay and promotion) from the company in comparison to this other person. A perception of fairness will exist if the employee perceives that he or she is receiving an adequate reward given his or her input (e.g., education and seniority) in comparison to what the other person receives.

Procedural Justice

Procedural justice examines the employee's perception of how he or she was treated during the allocation process. Procedural justice began with Thibaut and Walker's (1975) work concerning dispute resolution. Their research focused on examining whether a favorable outcome could be mitigated by the perceived fairness of the process that was used to reach the decision. They examined both the process stage and the decision stage of the proceedings and concluded that the process by which the outcome was determined was, in some cases, more important than the actual outcome. A key part of procedural justice is allowing participants a voice in the process. Providing a voice in the process will ease dissatisfaction with an unfavorable outcome (Colquitt et al., 2013).

Perceived Organizational Support

Organizational support theory involves the degree to which employees perceive that the organization values their contributions (Eisenberger, Huntington, Hutchinson, and Sowa, 1986). Social exchange theory (Blau, 1964) and the norm of reciprocity (Gouldner, 1960) are the

foundation for POS. According to Blau (1964), social exchange involves "the voluntary actions of individuals that are motivated by the returns they are expected to bring and typically do in fact bring from others" (p. 91). When employees perceive that they have been treated fairly by the organization (e.g., fair compensation for their efforts, provided with promotional opportunities for superior performance), they will feel an obligation to reciprocate the behavior (the norm of reciprocity) through increased commitment and loyalty (Eisenberger, Armeli, Rexwinkel, Lynch, and Rhoades, 2001). Both parties will develop feelings of trust, leading to long-term relationships (Rhoades and Eisenberger, 2002). For example, employees will expect that high performance will be noticed and rewarded. When this situation exists, employees will respond with increased in-role and extra-role performance (Eisenberger et al., 2001).

Research has reported that employees who are provided a voice (procedural justice) during the performance appraisal process will have increased POS (DeConinck, 2010; Rhoades and Eisenberger, 2002; Stinglhamber, De Cremer, and Mercken, 2006). While limited, research has found a significant relationship between distributive justice and POS (Camerman, Cropanzano, and Vandenberghe, 2007; Loi, Hang-yue, and Foley, 2006). In addition, a recent meta-analysis by Colquitt et al. (2013) reported a high correlation between POS and procedural justice (r =.49) and distributive justice (r = .45).

H1a: Procedural justice is related positively to POS
H1b: Distributive justice is related positively to POS.

Organizational Identification

Organizational identification derived from social identity theory (Tajfel, 1972; Tajfel, 1982; Tajfel and Turner, 1979). Social identity theory is defined as "the individual knowledge that he/she belongs to certain social groups together with some emotional and value significance" (Tajfel, 1972, p. 31). People categorize themselves into social groups (e.g., organizational or religious groups) (Tajfel and Turner, 1985), which enables a person to identify and maintain membership with that group (Foremen and Whetten, 2002). To enhance their self-esteem, group members will pursue unique differences between themselves and other reference groups (Tajfel, 1982). Members of a group view themselves as distinct from other groups. Group membership has a strong influence on peoples' behavior.

Organizational identification, which is a type of social identification, is defined as "the perception of oneness with or belongingness to some human aggregate" (Ashforth and Mael, 1989, p. 21). Organizational identification refers to the enduring and distinctive characteristics of an organization that distinguishes it from other organizations (Albert and Whetten, 1985). Individuals classify and compare themselves to other organizations based on the practices, values, and characteristics of their organization (Ashforth and Mael, 1989).

Identification occurs when members and the organization's identity overlap, causing members to highly value membership in the organization (Ashforth, Harrison, and Corley, 2008). People will experience greater organizational identity when their values coincide with the organization's values and these values are distinct and more attractive from other organizations' values. A low level of organizational identification is associated with few emotional connections to the organization (Zavyalova, Pfarrer, Reger, and Hubbard, 2016). Ashforth et al. (2008) state that organizational identification "is at the core of why people join organizations and why they voluntarily leave, why they approach their work the way they do and why they interact with others the way they do during that work" (p. 334).

Employees who perceive that the way rewards are distributed, and the process used to make that decision are fair have a higher level of organizational identification (Haynie, Flynn, and Baur, 2019). In addition, employees who perceive that the organization supports them also should identity highly with the organization (Lee, Park, and Koo, 2015; Hekman, Bigley, Steensma, and Herdford, 2009; Lam, Liu, and Loi, 2016).

H2a: Distributive justice is related positively to organizational identification.
H2b: Procedural justice is related positively to organizational identification.
H3: POS is related positively to organizational identification.

Job Embeddedness

The early models of turnover (Mobley, 1977; Mobley, Horner, and Hollingsworth, 1978), hypothesized that turnover was a function of employees' job satisfaction, alternative job opportunities, and turnover intentions. This stream of research provided insights into understanding the reasons for turnover. However, because much of the variance in turnover was not explained by these models, Mitchell and colleagues (2001) developed the concept of job embeddedness to further explain reasons that employees choose to stay rather than leave their organizations.

Job embeddedness consists of three components: fit, links, and sacrifices, which are related to both the community (off-the-job embeddedness) and the organization (on-the-job embeddedness) (Mitchell et al., 2001). Both informal and formal connections to people in the organization describe on-the-job links while off-the-job-links comprise connections in the community. The fit dimension involves a person's compatibility with the organizational culture and the community. It is the degree to which a person's job fits with other characteristics of one's life. Sacrifice is what an individual loses in terms of psychological or material activities if he/she leaves. Mitchell et al. (2001) describe the three dimensions of job embeddedness as a "web of influences" impacting people's decision to stay or leave the organization. Job embeddedness has been described as an anti-withdrawal construct (Lee et al., 2004). Employees are less likely to leave the organization when they perceive both the costs of departing are high and sacrificing their contacts inside and outside the organization as high. A recent meta-analysis reported that job embeddedness is correlated significantly with job search behaviors, turnover intentions, and actual turnover (Jiang et al., 2012).

Intuitively, POS should be a significant antecedent to job embeddedness. Employees who perceive they are supported by their organization should feel more embedded. Based on the norm of reciprocity and social exchange theory high quality exchange relationships should develop between the employer and employee and with colleagues (Wayne, Shore, and Liden, 1997). They will feel an obligation to reimburse the organization and therefore become more embedded. A limited number of studies have investigated the relationship between job embeddedness and POS. Afsar and Badir (2016), using a sample of hotel employees, reported that POS moderated the relationship between POS and organizational citizenship behavior. Two other studies also reported a direct relationship between job embeddedness and POS (Allen and Shanock, 2013; Nguyen et al., 2017).

H4: POS is related positively to job embeddedness.

Organizational Identification and Job Embeddedness

As stated earlier only one study could be located that examined the relationship between organizational identification and job embeddedness (Ng and Feldman, 2014). This study found that employees who identified highly with the organization also were highly embedded with the firm. Given the importance of both organizational identification and job embeddedness in many previous studies, one purpose of this study is to investigate the relationship between the two variables. Since organizational identification is an important reason why people join and stay with an organization (Ashforth et al., 2008), it should be related to an employee's level of job embeddedness.

H5: Organizational identification is related positively to job embeddedness.

Prior research has reported that organizational identification is related significantly to turnover intentions and turnover (Conroy, Becker, and Menges, 2017; Jing, Tatachari, and Chattopadhyay, 2017; Riketta, 2005). However, job embeddedness was not included in these studies. Does job embeddedness mediate the relationship between organizational identification and search behavior? Or is the relationship between organizational identification and search behavior both direct and indirect through job embeddedness? A second model will test for the indirect relationship. Since no study has included organizational identification, job embeddedness, and search behavior, a research question rather than a hypothesis will be proposed.

R1: Is the relationship between organizational identification and search behavior direct or indirect through job embeddedness?

Last, research supports that job embeddedness is related to search behavior (Jiang et al., 2012).

H6: Job embeddedness is related negatively to search behavior.

METHODS

Sample

The names of 1,500 retail buyers were purchased from a company specializing in direct mailing lists. An email message along with the survey was sent to each buyer. A link was provided for them to respond to the survey. A total of 198 buyers completed the survey. Two weeks later a second email message was sent to the buyers who had not completed the survey. Twenty-seven additional buyers completed the survey. The final sample size was 225.

The demographic profile of the buyers was as follows: they had worked as a buyer for an average of 11.3 years and with their current company for 6.8 years; their average age was 39.6 years, about 60 percent were male (134); and their average salary was $79,250.

Measures

Job embeddedness was measured using Crossley's et al. (2007) seven – item scale. *Procedural Justice*, seven items, and *Distributive Justice*, four items were measured using scales developed by Colquitt (2001). *Perceived Organizational Support* was measured using four items from the survey of perceived organizational support (SPOS) developed by Eisenberger, Huntington, Hutchinson, and Sowa (1986). Organizational identification was measured using the six-item scale developed by Mael and Ashforth (1992). Five items taken from the *Job Search Behavior Index* developed by Kopelman, Rovenpor, and Millsap (1992) were used to measure job search. The original scale used a yes/no format. The scale was modified in this study to use a five-point Likert format.

Construct Validity

As recommended by Hair, Black, Babin, Anderson, and Tatham (2009) construct validity was tested by examining the variance extracted (VE), construct reliability (CR), and standardized factor loadings (SFL). First, the variance extracted was above .5 for all variables. Second, the standardized factor loadings were above .5. Third, construct reliability was high. The results for each variable follows: POS VE=.74, CR=.86, SFL =.82 to .91; organizational identification VE=.68, CR=.85, SFL=.66 to .86; job embeddedness VE=.68, CR=.87, SFL=.75 to .86; search behavior VE=.83, CR=.9, SFL=.87 to .93; distributive justice VE=.72, CR=.88, SFL=.80 to .87, and procedural justice VE=.67, CR=.88, SFL=.75 to .88. The correlation matrix, means, and standards deviations appear in the table below.

Table 1 Correlations, Means, and Standard Deviations

POS							
OI	.41						
JE	.41	.39					
Search	-.23	-.37	-.40				
DJ	.38	.16	.15	-.09			
PJ	.40	.16	.16	-.08	.40		
Means	3.52	3.58	3.72	2.35	3.41	3.68	
Std. Dev.	1.12	1.11	.98	1.15	1.03	1.01	

POS = perceived organizational support, OI = organizational identification, JE = job embeddedness, DJ = distribution, PJ = procedural justice

RESULTS

The results were analyzed using LISREL 10.10. As recommended by Kline (2005) and Hair, Babin, and Krey (2017) the chi-square test, the comparative fit index (CFI), the root mean error of approximation (RMSEA), and the standardized root mean square residual (SRMR) were used to evaluate the fit of the model.

The results of the confirmatory factor analysis (CFA) meet or exceed commonly suggested cutoff values as proposed by Hu and Bentler (1999) ($\chi 2 = 877.58$, $df = 512$, $p = .00$,

CPI = .95, Std. RMR = .039; RMSEA = .056). Next, the hypothesized model was assessed. The results for the hypothesized model indicated a very good fit ($\chi 2 = 908.25$, $df = 518$, $p = .00$, CFI = .94, Std. RMR = .05, RMSEA = .058). All the hypotheses were supported. Procedural justice is related positively to POS (H1a, $\beta = .29$, $t = 3.95$), distributive justice is related positively to POS (H1b, $\beta = .26$, $t = 3.58$), distributive justice is related positively to organizational identification (H2a: $\beta = .19$, $t = 2.48$), procedural justice is related positively to organizational identification (H2b: $\beta = .20$, $t = 2.70$), POS is related positively to organizational identification (H3, $\beta = .25$, $t = 3.37$), POS is related positively to job embeddedness (H4, $\beta = .29$, $t = 4.15$), organizational identification is related positively to job embeddedness (H5, $\beta = .29$, $t = 4.15$), and job embeddedness is related negatively to search behavior (H, $\beta = -.41$, $t = 6.04$).

A second model was run to investigate the research question regarding the relationship between organizational identification and search behavior. The results indicated that the revised model was significantly different than the hypothesized model ($\Delta\chi^2 = 18.86$, 1*df*). Organizational identification was found to be a direct predictor of search behavior ($\beta = -.25$, $t = 3.59$).

CONCLUSIONS AND IMPLICATIONS

The purpose of this study was to extend prior research on job embeddedness by analyzing the influence of three antecedent variables (POS, organizational identification, organizational justice) on job embeddedness among a sample of retail buyers. The findings show the importance of including these constructs in studies examining variables that influence job embeddedness. The significance of the research results is discussed below.

Theoretical Implications

First, no previous study has included POS, organizational justice, organizational identification, job embeddedness, and search behavior in one study. Several meta-analyses have been undertaken showing the importance of these variables in predicting various job attitudes and behaviors (Colquitt et al., 2013; Kurtessis et al., 2017; Rhoades and Eisenberger, 2002; Riketta, 2005). This study makes an important contribution by showing how these variables directly or indirectly are related to search behavior.

Second, POS has been analyzed extensively (Rhoades and Eisenberger, 2002). However, its relationship with job embeddedness has seldom been studied (Allen and Shanock, 2013; Nguyen et al., 2017). The results indicate that POS is both a direct and indirect predictor of job embeddedness through organizational identification. This study shows that POS is an important variable influencing retail buyers' willingness to stay with their organization.

Third, the results confirm prior research indicating that organizational justice is related positively to organizational identification (Kurtessis et al., 2017) and indirectly to job embeddedness through organizational identification. Retail buyers who perceive they have been rewarded fairly for their efforts (distributive justice) and have been treated fairly regarding the procedures used to arrive at the outcome (procedural justice) will identify more highly with their company.

Managerial Implications

Given the high cost of turnover, finding ways to reduce turnover is important. To reduce turnover, organizations need to understand the underlying causes of turnover. Job embeddedness has been shown to be an important variable related to turnover (Crossley et al., 2007; Lee et al., 2017). Job embeddedness involves employees' degree to which they are attached to their organization and the difficulty in leaving for another job.

Therefore, understanding variables influencing job embeddedness is important. This study indicates that POS is one of the variables that directly and indirectly through organizational identification impacts job embeddedness. When an organization demonstrates support for employees (concern for employees' well-being, values their contributions, and cares about their opinions), this group of retail buyers reported greater organizational identity and were more embedded in their job. The results regarding POS have several managerial implications. First, organizations need to determine what kind of support employees need to perform their jobs successfully. Second, ascertain if employees perceive the organization is providing them with adequate support. For example, in what areas is the organization providing expected support and where is support lacking? Third, determine which employees need more organizational support. Some employees (probably new hires) may want and need a lot of support while more senior employees may need less support. The immediate supervisor has an important part is determining if proper support is provided to subordinates. He or she needs to talk with subordinates and determine if enough organizational support is being provided to them. Failure to provide support ultimately leads to lower job embeddedness and higher turnover.

Organizational justice also has an important role in the turnover process. When employees perceive they have been treated fairly, they will feel an obligation to reciprocate the fair treatment resulting with a more favorable attitude toward the organization and productive work behavior. Perceptions of procedural justice will occur when, during the performance appraisal, employees can express their views and feelings, perceive that procedures are applied consistently and free of bias, is based on accurate information, and that the appraisal was conducted with high ethical and moral standards.

How do organizations determine if employees perceive they have been treated fairly? First, solicit anonymous feedback from employees regarding the perceptions of distributive justice and procedural justice. Did his or her supervisor allow the employee to participate in the outcome/performance appraisal process? Do employees perceive the organization's outcome process is fair? Second, the supervisor has an important role in the process. Organizations need to train supervisors on how to conduct an unbiased, fair performance appraisal that allows participation from subordinates. Training supervisors in organizational justice principles has several advantages (Skarlicki and Latham, 2005). First, it can increase organizational effectiveness by increasing employees' attitudes and behaviors. Second, human resource procedures (hiring, training, and performance appraisal) are likely to be accepted by employees when they are perceived to be fair. Third, organizational justice training provides a guideline for ethical behavior among leaders in the organization.

The last implication involves organizational identification, which is important since it is linked to search behavior and, based on other research results, turnover (Ashforth et al., 2008). Creating greater organizational identity will reduce the desire of retail buyers to search for another job. One way to increase organizational identity is to hire employees whose values are like the values of other organizational members.

LIMITATIONS AND FUTURE RESEARCH OPPORTUNITIES

Several opportunities for future research exist based on the study's results. First, since this study was the first one to include organizational justice, POS, organizational identification, job embeddedness, and search behavior, future research needs to replicate this study's findings with a different group of employees. Second, as with many studies, this one was cross-sectional. Future research, conducted within a singular organization, would allow actual turnover data to be collected rather than examining only search behavior intentions. Third, other variables could be included in the model such as perceived supervisor support, organizational and supervisor trust, and job alternatives. In conclusion, this study has indicated that organizational justice, POS, and organizational identification influence retail buyers' job embeddedness and search behavior. These results provide important information in managing turnover among retail buyers.

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THE IMPORTANCE OF FREE TECHNICAL SUPPORT: A NEW SCALE

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ABSTRACT

Despite the common offering of free technical support programs in the consumer goods market, little research has focused on the consumers' perspective of this benefit and the impact they have on purchase decisions. And, while these customer assistance services might be referred to as free, they are actually expensive for marketers to implement and offer. This paper seeks to highlight the need for a better understanding of the types of people, products, and situations that may lead consumers to perceive value in such free customer support programs. Such insights could enable marketers to position technical support as a competitive advantage. Specifically, this study creates and validates a six-item scale through two pretests. This new scale will allow researchers and practitioners to measure the level of importance consumers place on the offering of free technical support, thereby enabling them to make more educated decisions about when to prioritize the implementation and management of their technical support programs. Additional attention should be given regarding creative ways in which free technical support could be positioned to influence and retain consumers.

INTRODUCTION

Technical support programs are abundant in the consumer goods market, with such services being offered across most every product category, ranging from computers, cell phones, fitness equipment, and home theater systems to power tools and even toys. Although technical support programs are often touted as being free to customers, the implementation of such programs can be extremely expensive for marketers. Companies such as Dell may invest as much as twelve weeks of paid training before the support representatives even talk to the first customer (Bagga and Khanna, 2014). Despite the vast use of technical support offerings by marketers, there has been surprisingly little academic research to discover how these offerings are viewed by consumers or the impact they have on consumer decisions. Thus, the purpose of this article is to create and validate a multi-item scale by which marketers can measure the importance consumers place on the offering of free technical support that can be used for specific product categories.

LITERATURE REVIEW

Recent literature has called for academics to research ways to reposition the customer support function, an area that has historically been viewed as having little strategic significance (Sheth, Jain & Ambika, 2020). This is due partly to the fact that marketing activities such as

advertising and sales tend to focus on buyers, rather than on users. However, retaining customers is just as important to the success of businesses as is gaining them. (Kumar, Khandelwal, Mehta, Chaudhary and Bhatia, 2017). Specifically, the point is made that marketers could potentially reinvent customer support to serve as a competitive advantage instead of simply being a cost of doing business or function that is outsourced (Sheth, et al., 2020). One possibility to this end would be to frame and deliver technical support to customers as a benefit that will ensure optimal product performance, thereby increasing customer satisfaction and retention. In order to work toward such a perceptual change with customers, marketers first need to understand the attitudes consumers currently have regarding technical support. This study provides a starting point on this repositioning journey by creating a scale by which marketers can measure consumers' attitudes toward the importance of the free technical support offering.

Studies have found that the technical support experience is positively associated with ownership experience, thus stressing the importance of investing in resources to create adequate support, in order to provide customer satisfaction and foster brand loyalty (CMO Council, 2017; Kane, 2016). While the topics of customer support and customer service have received much attention in the literature for their influence on after-the-sale measures such as customer satisfaction, retention, and loyalty, (Dean, 2007; Sharma, 2012) little research has been devoted to exploring the impact technical support has, or could potentially have, on the purchase decisions of potential customers before a purchase. This type of customer assistance is not about tracking deliveries or resolving billing issues, which fall under the broader heading of customer service. It is about the availability of expert advice to help customers get the most out of their products (MacDonald, 2019). Retana, Forman & Wu (2016) found that initially educating service customers led to a more positive consumer experience as well as increased customer loyalty. Still, a review of the literature could not find a tool to adequately measure the importance consumers place on the offering of free technical support and its role in the purchase decision process. This research contributes to the marketing and consumer behavior literature by creating and validating a scale to measure the construct of the importance consumers place on free technical support for a specific purchase decision. This, in turn, will provide valuable insights for marketers who determine to understand and perhaps reshape customer attitudes in order to reposition their customer support systems as a competitive advantage.

METHODOLOGY

Since a review of the marketing literature failed to reveal an appropriate scale for measuring the level of importance one places on the offering of free help or technical assistance; one must be created in order to measure and study this construct. The general criteria for scale development provided by Churchill (1979) was used as a pattern to guide this process. First, a construct definition was established. In this case, an adequate one was borrowed from The Language Bin On-Line Dictionary, which describes something that is important as possessing value. So, this scale will seek to measure the degree of importance or value placed on the benefit of free help. The characteristic of importance should not be confused with the concept of salience, which in marketing terms, tends to refer to features that are not only considered

important by consumers, but also essential. Although it stands to reason that if something is viewed as highly important, it might also be salient. Additionally, the concept of importance does not necessarily indicate any intention to purchase or not purchase a particular product.

It might be assumed that one's perception of importance is a one-dimensional construct that could probably be measured adequately with a single, straightforward question. In fact, marketing studies have utilized single-item rating scales to determine consumers' perceptions regarding which product or service attributes are more or less important (Huang, Wu & Hsu, 2006; Mackenzie, 1986). Such studies commonly give respondents a list of several product features and simply ask them to rate each one on a scale ranging from "not important at all" to "very important." However, the need for this study is not to compare the importance of various factors with one another, but instead, is to arrive at a measurement that meaningfully depicts consumers' attitudes toward the value of the feature of free help/technical assistance. As such, measuring several items instead of only one should shore up the scale reliability by making sure the respondents display consistency in attitude for similar questions regarding this concept (Shao, 2002, p. 245).

As scales are developed, Hair et al. (2006) note the importance of maintaining objectivity within the measurement instrument. Churchill (1979) suggests that items with both positive and negative wording be included in order to avoid biasing the respondents toward a favorable or unfavorable attitude. The negatively worded items must then be reverse scored in order to keep the summated scores consistent. Similarly, it is recommended that the scales be balanced by using descriptors that provide an equal number of positive and negative choices (Hair et al., 2006, p. 374-375). In order to maintain consistency with most of the other scales used in this study, this new scale will utilize a seven-point Likert scale ranging from strongly agree to strongly disagree, with options on either side of the neutral mid-point offering slight and definite agreement/disagreement.

According to psychology literature, attitudes can be divided into three components: cognitive attitude, affective attitude, and behavioral attitude (Rosenberg, Hovland, McGuire, Abelson, and Brehm, 1960; Spooncer, 1992). Cognitive attitude includes the knowledge or beliefs one has about a concept, while the affective attitude deals with the emotional feelings regarding a concept. The behavioral component is an intended or actual course of action regarding a concept, and is generally the result of the cognitive and affective attitudes. Therefore, an initial scale to measure the attitude of importance should at least consider including each of these three dimensions.

Another facet of the free help feature that should be considered concerns the public perception of such services. Perhaps poor service and inadequate use of communication tools such as phone systems, E-mail, Web-sites and chat features have become so common that many customers expect frustration rather than help when requesting assistance from the providers of products and services. So, the first two items on this initial scale focus on the useful, personal attention aspect of free help, rather than on the terms "free help" and "technical assistance," which may carry a poor image with some consumers. See Table 1 for a list of the initial items and scale descriptors included in this scale.

Although a multi-item scale has never been developed for measuring the perceived importance of free technical support, Luhtanen and Crocker (1992) did validate a four-item scale for measuring the importance of group membership to an individual. Items nine and ten were borrowed from them and were slightly amended in order to measure the importance of free help. However, the other two items from Luhtanen and Crocker (1992) were not included because their wording was irrelevant to this study. Items 11 and 12, respectively, framed negative and positive statements that were created to be extremely short and direct. This initial quantity of items is consistent with similar scale development studies (Flynn et al., 1996).

Table 1

	Original Scale Items to Measure the Importance of Free Help / Technical Assistance
Personal Attention	**I believe it will be important for me to have a knowledgeable person available to answer my questions as I learn to use the features of my new digital camera.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
Personal Attention (neg framed)	**I don't need a camera expert to be available to answer my questions or offer advice about how to best use my new digital camera.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
Cognitive	**It would be an important benefit for me be able to get free help from the camera company about problems I might have using the various features of my new camera.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
Cognitive (neg framed)	**I don't think that the benefit of free help or technical assistance for a new digital camera is very important.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
Affective	**I feel that "free technical assistance" would be a valuable service to have with a new digital camera.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
Affective (neg framed)	**I don't care if the camera I choose comes with free help.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
Behavioral	**I would be more likely to purchase a particular camera if I knew it came with free help as a feature.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
Behavioral (neg framed)	**The benefit of free help would not influence my decision of which camera to buy.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
(neg framed)	**Overall, the benefit of free help or technical support has little to do with how I feel about a digital camera.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
	In general, free help/technical support is an important feature for a digital camera. Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
(neg framed)	**It doesn't matter if a digital camera comes with free help.** Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree
	It is important for a digital camera to include free technical assistance. Strongly Agree 1 2 3 4 5 6 7 Strongly Disagree

Pretest 1

Two pretests were performed in order to validate and purify the new scale for measuring the importance of free help. First, an assessment of the instrument was conducted by two Ph.D., marketing professors to help ensure face validity. Also, two college students examined the items for clarity. The input of both the instructors and students led to several changes in the wording of the items. This specific approach was borrowed from Laroche et al. (2003). Placing sample members in a hypothetical scenario is a practice that is widely used in research because it provides a degree of situational consistency for all the respondents (Duhan et al., 1997). The context of this study created a purchase situation for a new, digital camera for personal use. This scenario was selected primarily because it presented a realistic purchase decision task for most of the respondents. The purchase scenario (See Chart 1) was distributed to a convenience sample of 40 students (21 female, 19 male) in two upper division business classes with the following instructions:

> You have decided to purchase a quality digital camera for personal use, which you will trust to help you capture, preserve, and share your memories over the next several years of your life. You have ruled out the cheapest cameras with unfamiliar brand names, as well as the most expensive "professional" cameras, which are very pricey and offer more gadgets than you could ever use. However, you do want the latest in technology. You have compiled a list of features for the following nine cameras, which are marketed by different, but equally well-known and respected companies. Now, you are finally ready to choose the digital camera you will purchase from these nine alternatives. Please review the following information you have collected about these camera options and features as you consider making your purchase decision.

After these students had taken about a minute to begin processing the scenario, they were given a copy of the "importance of free help" scale (Table 1) to complete at that point, even though they likely had not made a final decision. The purpose of the scenario was to have them engaged in the purchasing process, not necessarily to arrive at a decision. The following information was included in order to ensure that respondents understood the camera feature described as free help:

> It is very common today for companies to offer product support services to their customers at no additional cost. This service is available to customers after they have purchased the product in order to answer questions and resolve problems regarding product usage and to help product owners get the most out of their purchase. Toll-free support lines and online instant chats with a professional technician are examples. The terms "free help, technical assistance, and support" will be used interchangeably in this survey to refer to this type of product feature. Although free technical assistance is not specifically listed as a feature for any of the cameras you have been given to consider, it is included on some of the models.

Chart 1

Camera Option 1	Camera Option 2	Camera Option 3
Price: $200	Price: $299.95	Price: $230
3.34 Megapixels	Includes 1 Rechargeable Lithium Battery	4.0 Megapixels
MPEG Video Clip Format	32 MB Memory Card	Self Timer with 2 to 10 Second Delay
Includes 2 Rechargeable AA Batteries	MPEG Video Clip Format	2" Color LCD
Self Timer with 10 Second Delay	6.1 Megapixels	Auto/Manual Flash Modes
Compact Design	Auto/Manual Flash Modes	16 MB Memory Card
3X Optical & 4X Digital Zoom	Camera Case with Strap	3X Optical & 3.6X Digital Zoom
1.6" Color LCD	1.8" Color LCD	Adaptive Lighting Technology
16 MB Memory Card	3X Optical & 4X Digital Zoom	Includes 1 Rechargeable Lithium Battery
Auto/Manual Flash Modes	Red-Eye Elimination	Red-Eye Elimination

Camera Option 4	Camera Option 5	Camera Option 6
Price: $371.97	Price: $160.95	Price: $256.98
32 MB Memory Card	16 MB Memory Card	Shutter Speed .0005 to .25 Sec.
12X Optical & 4X Digital Zoom	3.0 Megapixels	Pocket Compact Design
Date/Time Stamp	3X Optical Zoom	6X Optical Zoom
Auto/Manual Flash Modes	Auto/Manual Flash Modes	Includes 1 Rechargeable Lithium Battery
Camera Case with Strap	Compact Design	Auto/Manual Flash Modes
4.0 Megapixels	Includes 2 AA Alkaline Batteries	Photo Editing Software
1.5" Color LCD	Red-Eye Elimination	5.1 Megapixels
Panoramic View Feature	1.6" Color LCD	16 MB Memory Card
Red-Eye Elimination	Self Timer with 15 Second Delay	1.5" Color LCD

Camera Option 7	Camera Option 8	Camera Option 9
Price: $396	Price: $179	Price: $339.99
2.5" Color LCD	4X Optical Zoom	Shutter Speed .001 to 4 Sec.
25 MB Memory Card	Shutter Speed .0005 to 15 Sec.	2" Color LCD
3X Optical & 5X Digital Zoom	16 MB Memory Card	16 MB Memory Card
Auto/Manual Flash Modes	Date/Time Stamp	Panoramic View Feature
Includes 1 Rechargeable Lithium Battery	1.8" Color LCD	Red-Eye Elimination
MPEG Video Clip Format	Photo Editing Software	Self Timer with 10 Second Delay
Photo Editing Software	3.3 Megapixels	3X Optical & 10X Digital Zoom
8.3 Megapixels	Auto/Manual Flash Modes	Auto/Manual Flash Modes
Red-Eye Elimination	Camera Case with Strap	6.3 Megapixels

The scale results were analyzed for internal consistency by calculating Cronbach's Alpha, which produced an acceptable coefficient rating of .791, and the SPSS output suggested that this alpha would be improved if item nine was deleted (Cronbach, 1951; Hair et al., 2006, p. 374). Also, the Kaiser-Meyer-Olkin statistic of .675 indicated that factor analysis would be an appropriate means of data analysis for these twelve scale items (Garson, 2006a). Therefore, two exploratory factor analyses, one with VERIMAX rotation and another with oblique rotation were run, and both produced consistent groupings and further supported the argument for omitting item nine by identifying it as the only item with a significant cross-loading (Hair et al., 2006, p. 130). Both factor analyses also isolated item two as a problematic single-item factor. These items were reviewed and found to offer no unique insight into the construct; therefore, items two and nine were eliminated, resulting in an improved internal reliability of .83. The remaining ten items would be further scrutinized with a second pretest (see Table 2).

Another important step in validating a new scale is the comparison of its measurements with those of other established scales in order to make sure it behaves as theory suggests it should (Churchill, 1979; Hair et al., 2006, p. 355-356). Pretest results should be compared with other scales that measure similar or related constructs. Significant correlations will indicate that

the new scale performs as expected, thus demonstrating convergent or nomological validity. Likewise, low correlations or insignificant relationships with constructs that are considered to be different will verify discriminant validity of the new scale.

To test for convergent validity, the relationship between the new, importance scale and a previously utilized scale measuring purchase intentions was analyzed. It is logical to theorize that a higher degree of perceived importance regarding a particular benefit would be positively related to one's intention to buy the product that delivers that benefit. Therefore, it is not surprising that research has already substantiated the existence of this positive association (Kim & Kim, 2004). Specifically, they found that the more important a particular shopping attribute was rated, the more likely it was to produce a strong intent to purchase. Their (2004) study followed the common practice of measuring purchase intention with a single-item scale asking the respondent to rate how likely or unlikely she is to purchase a particular item (Machleit & Wilson, 1998). However, this study borrowed a two-item, purchase intention scale that was utilized by Lee (2005) as part of the scenario. SPSS was used to calculate Pearson's correlation coefficient and found that the new scale measuring the importance of free help was positively associated with purchase intentions, thus supporting convergent and nomological validity ($r = .44$, alpha = .01, two-tailed). Note, however, that the correlation was not strong enough to indicate that these two scales might actually measure the same concept, thus maintaining a distinction between the two (Churchill, 1979).

Table 2

Revised Scale Items to Measure the Importance of Free Help / Technical Assistance in Second Pretest		
I believe it will be important for me to have a knowledgeable person available to answer my questions as I learn to use the features of my new digital camera.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
It would be an important benefit for me be able to get free help from the camera company about problems I might have using the various features of my new camera.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
I don't think that the benefit of free help or technical assistance for a new digital camera is very important.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
I feel that "free technical assistance" would be a valuable service to have with a new digital camera.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
I don't care if the camera I choose comes with free help.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
I would be more likely to purchase a particular camera if I knew it came with free help as a feature.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
The benefit of free help would not influence my decision of which camera to buy.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
In general, free help/technical support is an important feature for a digital camera.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
It doesn't matter if a digital camera comes with free help.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
It is important for a digital camera to include free technical assistance.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree

While the constructs that imply convergent and discriminant validity may point toward nomological validity, the concept of subjective or self-assessed product class knowledge was chosen specifically for this purpose. This tests whether or not the scale "makes accurate predictions of other concepts" as theory would expect (Hair et al., 2006, p. 137-138). Defined as "an individual's perception of how much he or she knows" about a specific product category, the idea of subjective product class knowledge is easily distinguished from the concept of the importance of free technical support (Brucks, 1985). Although these variables are dissimilar, there is certainly reason to theorize that they should be negatively correlated. Brucks (1985) found that people with higher degrees of subjective product knowledge tend to rely more on their own product judgments and less on the opinions of others; even others that might be considered experts. This makes sense because those who feel they already know a lot about a product category would probably consider themselves to be experts and are, therefore, both confident in their own capacities to make product related decisions and doubtful that someone else would have new, helpful information of which they are unaware.

Using this same line of reasoning, Gilly et al. (1998) incorporated Brucks' (1985) scale of subjective knowledge into their study as a measure of product class expertise. Since free technical assistance primarily carries the benefit of having an expert available to answer questions and offer advice, it seems logical to theorize that such a feature might not be deemed important by those who believe themselves to be experts. However, those who feel they lack product class knowledge would likely view the availability of professional assistance as a more valuable benefit. Thus, a negative correlation between the importance of free help and subjective knowledge would be predicted, and such a finding would help substantiate the nomological validity of this new scale. This study borrowed Brucks' (1985) two-item scale for subjective product class knowledge, which originally demonstrated a high coefficient alpha of .91. Rather than assuming the Likert format, this is a semantic differential scale; however, the seven point scale choices serve to maintain a certain degree of consistency with the other survey instruments. The negative association found in the first pretest data also support nomological validity for the new importance of free help scale ($r = - .34$, significance = .05, two-tailed).

Pretest 2

The second pretest to validate the importance of the free help scale was conducted in similar fashion to the first one; however, since it was during the summer, the number of student participants available was only 30 (17 males, 12 females, 1 undisclosed). The purified, ten-item scale derived from the first pretest produced an improved Cronbach's alpha of .95 in the second pretest, and SPSS showed that no single item elimination would significantly improve internal reliability (Cronbach, 1951; Hair et al., 2006, p. 374). And, for this pretest, an additional single-item, seven-point rating scale for measuring feature importance was included to further assess convergent validity (1 = very important, 7 = very unimportant). This item was adapted from Kim and Kim (2004) and was worded as follows: How important is it to you that a digital camera include the feature of free technical support? Since these two scales are intended to measure the same basic concept, the strong, positive correlation substantiates convergent validity

for the new scale ($r = .75$, $p < .01$, two-tailed). And the negative relationship between importance of free help and subjective product class knowledge was observed once more, thereby supporting nomological validity ($r = -.52$, $p < .01$, two-tailed). An improved Kaiser-Meyer-Olkin statistic of .89 confirmed the suitability of the data for factor analysis (Garson, 2006a). Thus, two more exploratory factor analyses were run, one with VERIMAX rotation and another with oblique rotation. Both produced solutions with all ten importance items loading onto a single factor, thereby indicating unidimensionality and suggesting that all ten items could be merged into a single, summated scale (Hair et al., 2006, p. 135-136).

Final Scale

The results of these two pretests suggest that this new, ten-item scale possesses the features of reliability and validity required for use in research (Churchill, 1979). However, there was a concern that the apparent similarity of some of the questions might annoy the participants and produce some respondent fatigue. Therefore, a final step was taken with the goal of reducing the number of scale item from ten to about five or six; a number that would be more consistent with many previously validated marketing scales used for measuring unidimensional constructs. For this task, a step-wise regression was conducted, which utilized the summated scale results for the importance of free help variable, with each of the ten scale items serving as predictors (Garson, 2006b). This test suggested that a significant R^2 of .993 and a Cronbach's alpha of .93 could be maintained while eliminating items one, two, five, and ten from the scale. The various purification and validation processes utilized in these two pretests produced a final, six-item scale, which will be used to measure the importance of free help for this study (see Table 3). Note that three positively and three negatively phrased items were retained.

Table 3

Final Six-Item Scale to Measure the Importance of Free Help / Technical Assistance		
I don't think that the benefit of free help or technical assistance for a new digital camera is very important.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
I feel that "free technical assistance" would be a valuable service to have with a new digital camera.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
I would be more likely to purchase a particular camera if I knew it came with free help as a feature.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
The benefit of free help would not influence my decision of which camera to buy.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
In general, free help/technical support is an important feature for a digital camera.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree
It doesn't matter if a digital camera comes with free help.		
Strongly Agree	1 2 3 4 5 6 7	Strongly Disagree

DISCUSSION & FUTURE RESEARCH

Little research has been conducted regarding the construct of free technical support in the consumer goods market. This topic certainly deserves some attention because an effective customer assistance program could be quite expensive to operate, while an ineffective one could quickly lead to problems with customer dissatisfaction. Thus, marketers need a better understanding of what types of individuals, products, and situations facilitate a perception of value in the feature of free help in order to develop and promote more effective assistance programs. This study has created and validated a six-item scale that will enable marketers to measure the level of importance consumers place on the free support benefit. In turn, practitioners may now be able to prioritize and allocate resources toward technical support programs from an informed viewpoint, rather than making such determinations based on a hunch.

Though significant, this step is only the beginning of a promising, new stream of research. Additional work needs to be done in order to build a theoretical framework regarding

the types of people, products, and situations that lead the offering of free technical support to be perceived as more or less important to consumers as they make purchase decisions.

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SOCIAL MEDIA MESSAGE STRATEGY: A CONTENT ANALYSIS OF SPONSORED POSTS AND PROMOTED TWEETS

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ABSTRACT

This paper examines the frequency and effectiveness of message strategies on Facebook and Twitter. Utilizing a content analysis of sponsored messages taken from Facebook and Twitter news feeds of undergraduate student subjects, the research analyzes message objectives and tactics, product categories, and consumer engagement. Results show significant differences in the effectiveness of message tactics overall and between the two social media sites. The findings suggest that some tactics that generate high numbers of likes and shares, like cause-related posts, may be underutilized, while others, like the straight sell, are very common and less effective.

INTRODUCTION

Social media advertising spending approached US$ 90 billion in 2019 and is projected to reach US$ 125 billion by 2023 (Statista, 2019). Although Facebook dominates social media advertising, Twitter, with global revenue over 3 billion (Statista, 2020), is also a significant player. Research on brands' use of social media is increasing rapidly, providing greater insight into both strategies and effectiveness. However, this research has primarily utilized brands' posts on their own pages, not brands' paid messaging. Brands' posts to their own accounts may or may not be "boosted" through payment to appear in consumer news feeds. Furthermore, most studies have looked at either two to three very broad categorizations of message strategy or at vary narrow tactical features. Therefore, the purpose of this study is to examine both broad advertising objectives and specific advertising tactics used in sponsored posts as they occur in users' news feeds.

LITERATURE REVIEW

Message strategy for marketing communications can be defined as "a guiding approach to a company or institution's promotional communication efforts for its products, services, or itself" (Taylor, 1999). However, from early studies on print and television advertising, to more recent studies on social media, message strategy has been operationalized in many ways, and at many different levels of generality. In early and influential work in this area, Puto & Wells (1984) devised a four category typology of message strategy based upon informational and transformational dimensions. According to Puto & Wells (1984, p. 639), informational advertising "provides consumers with factual…relevant brand data," while transformational

advertising "associates the experience of using (consuming) the advertised brand with a unique set of psychological characteristics." In recognition of the unique nature of social media—specifically, the ability of users to respond to brands' social media messages—studies examining social media message strategy have often added a behavioral dimension to message strategy, usually referred to as "interactive" (de Vries et al., 2012; Cvijikj & Michahelles, 2013; Tafesse & Wein, 2018). Tafesse & Wein (2018) define the interactional message strategy as one that, "cultivates ongoing customer interactions through the rich interactive affordances of social media" (p. 244). These three categorizations or types of message strategies neatly mirror the three components of attitude: cognitive, affective, and behavioral (Rosenberg & Hovland, 1960; Breckler, 1984). There are theoretical models to support the ability to influence attitudes through each of these three components. Attitudes can be influenced by changing beliefs about an object or action (e.g., Fishbein & Ajzen, 1975); by associating affect with an object or action such as by classical conditioning (Gorn, 1982; Stuart et al., 1987); or by inducing action consistent with the desired attitude to produce cognitive dissonance (Cummings & Venkatesun, 1976; Wicklund & Brehm, 1976).

In efforts to more completely describe message strategy, in particular when predicting effectiveness, many researchers have included more specific marketing communication methods or tactics. For example, Laskey et al. (1995), drawing on Puto & Wells, defined nine subcategories: comparative, unique selling proposition, preemptive, hyperbole, generic, other informational, user image, brand image, and use occasion. Similarly, O'Guinn et al. (2009) define message strategy to include both broader objectives and more specific methods. In social media research, categorizations of message strategy have also ranged from broad to more specific. Tafesse & Wein (2018) categorized Facebook posts according to the informational, transformational, and interactive strategies discussed above; Tafesse & Wein (2017) devised a twelve-category framework for categorizing brands' social media posts; and others have coded very specific tactics such as links, videos, and hashtags (Cvijikj & Michahelles, 2013; Swani et al., 2014).

Our understanding of the relationship between message strategy and effectiveness is complicated, not only by the differing conceptualizations of message strategy, but also because of a number of moderating factors, including product category and medium. Laskey et al. (1995) found that the preemptive strategy was effective in generating brand preference in the breakfast foods and snacks category while the unique selling proposition strategy was effective in generating brand preference in the household items category. Likewise, Kim et al. (2015) found differential effects of task-oriented, interaction-oriented, and self-oriented strategies for convenience versus service brands. Several social media strategy studies have found transformational strategies and tactics to increase "likes" on Facebook (Ashley & Tuten, 2015; Tafesse & Wein, 2018; Yuki, 2015), while Taecharungroj (2017) found that action-inducing content increased retweets on Twitter, and Araujo et al. (2015) found informational cues increased retweets. In addition, studies have identified differential effects on effectiveness measures including likes, shares, and comments (Cvijikj & Michahelles, 2013; de Vries et al., 2012; Tafesse, 2015). A summary of social media studies utilizing content analysis to study message strategy effectiveness is shown in Table 1.

Table 1
Social Media Message Effectiveness Studies

Authors	Sample	Message Strategies	Significant Findings
Araujo et al. (2015)	Tweets from 298 profiles from 65 top 100 global brands	Informational and emotional cues	Informational cues were predictors of higher levels of retweeting.
Cvijikj & Michahelles (2013)	Facebook posts from 100 FMCG (fast moving consumer goods) brands	Vividness, interactivity, entertainment, information, remuneration and interactivity	Entertainment increased likes, comments, and shares. Brand-related information increased likes and comments. Interactivity had a negative effect on likes and comments. Remuneration increased comments.
deVries et al. (2012)	Facebook posts from 11 international brands from six different product categories	Vividness, interactivity, information, and entertainment	Vivid and interactive post characteristics increased likes. Interactive post characteristics increase comments.
Kim et al. (2015)	Facebook posts from 92 global brands	Task-oriented, interaction-oriented, and self-oriented	Task-oriented generated the most likes, comments, and shares. For convenience brands, self-oriented received more likes that interaction-oriented. For service brands, interaction-oriented generated more likes than self-oriented.
Swani et al. (2013)	Facebook posts from 193 Fortune 500 companies	Corporate branding, emotional content, and calls to purchase	The use of corporate brand names lowered the number of likes and the use of emotional content increased the number of likes. Emotional content generated relatively more likes in service accounts than in product accounts. The use of corporate brand names generated relatively more likes for B2B than B2C accounts.
Taecharungroj (2016)	Tweets from Starbucks	Information-sharing, emotion-evoking, and action-inducing	Action-inducing increased tweets and favourites. Visual content increased effectiveness.
Tafesse (2015)	Facebook posts from five top selling automotive brands in the UK	Vividness, interactivity, novelty, brand consistency, and content type (informational, entertaining, transactional)	Vividness increased brand shares. Interactivity had a significant negative effect on likes and shares. Novelty and consistency increased likes and shares. Entertaining posts generated more likes than informational posts.
Tafesse & Wein (2018)	Facebook posts from 20 top global brands	Informational, transformational, and interactional	Transformational posts generated a higher level of engagement (likes + shares).

Drawing from the above research, the current study examines message strategy on two levels in order to investigate both the nature of sponsored messages and their effectiveness. The first, broader, level divides messages into three categories that reflect the message objective: information, transformation, and action. These categories have substantial theoretical and empirical support behind them (Breckler, 1984; Puto & Wells, 1984; Rosenberg & Hovland, 1960) and are closely aligned with typologies that have been used both with Facebook (Tafesse & Wein, 2018) and Twitter (Taecharungroj, 2017). In addition to the three broad message objectives, in order to provide greater specificity and consistency with prior research (Laskey et al., 1995; O'Guinn et al., 2008), the study also looks at five additional, narrower, tactics: promotion, cause/institutional, curiosity, image, and straight sell.

HYPOTHESES

The literature suggests both theoretical and empirical support for the belief that message strategy impacts message effectiveness (Ashley & Tuten, 2015; Tafesse & Wein, 2018; Yuki, 2015) and that both its usage and its impact on effectiveness differ according to product category (Kim et al., 2015; Laskey et al., 1995). Therefore, we propose:

H1: Message effectiveness will vary significantly with respect to message strategy.

H2: The (a) frequency and (b) effectiveness of message strategies will vary significantly by product category.

The literature review did not uncover previous studies that directly compared the effectiveness of different message strategies on Facebook and Twitter; however, studies looking separately at each of these sites have shown conflicting results with respect to the most effective strategy, e.g., transformational for Facebook (Tafesse & Wein, 2018) and action-oriented for Twitter (Taecharungroj, 2017). Given this finding, and the knowledge that message outcomes are affected by medium and media vehicle (Arens et al., 2013), we also propose:

H3: The effectiveness of message strategies will vary significantly by social media site (Facebook versus Twitter).

METHODOLOGY

Sixty-three traditional undergraduate student subjects from three upper-level business courses at a US university participated in the study. Subjects were given written instructions and then verbally led through the process of visiting the desktop and mobile versions of four different social media platforms, logging in where applicable, and capturing screenshots from each. The screenshots were taken simultaneously, during each class time. The first two collections took place on the same day, and the second on the following day, so all sponsored messages were collected within a 24-hour time span. Only the desktop data collected for Facebook and Twitter are utilized in the present study. Google Chrome Full Page Screen Capture was used in order to capture the entire page and not just the viewable screen. The resulting files were saved on the students' laptops and then transferred to flash drives provided by the instructor.

Eliminating screenshots with no sponsored messages due to ad blocking or failure to log in narrowed the sample to 43 subjects, 64 screenshots and 174 sponsored messages. Further elimination of duplicate ads resulted in a final sample of 42 subjects (21 male, 21 female), 62 screenshots and 140 sponsored messages—65 from Facebook and 75 from Twitter—for analysis. Sponsored messages were defined as messages occurring in the news feed that were labeled "sponsored" on Facebook and "promoted" on Twitter. Posts from followed or liked brands that were not labeled as sponsored or promoted were not included in the measure of sponsored messages. Ads occurring to the side of the news feed on Facebook were not included in the present analysis.

The methodology employed to study the sponsored messages was content analysis. Content analysis can be defined as "a scientific, objective, systematic, quantitative, and generalizable description of communications content" (Kassarjian, 1977). Content analysis is frequently employed in studying social media posts. Tafesse & Wien (2017) provide a comprehensive summary of 13 published studies on brand posts, ten of which utilized content analysis. As recommended in content analysis, for variables where judgment was required, such as communication objective and tactic, two coders worked independently to determine the appropriate category. For objective variables such as site and numbers of likes, shares/retweets, and comments for each sponsored message, a second coder was employed to check items coded by the primary coder. Product categories were determined by first coding the specific sponsor and product (e.g., Pandora, internet radio) and then grouping products into categories (e.g., leisure/entertainment), guided by categories used in content analyses of advertising to similar audiences (Hanson, 2014; Morris & Nichols, 2013). In cases where a web retailer was promoting its site and a product, the category for the product being promoted was used. The resulting product typology captured 86% of the products in seven categories: apparel/accessories, food/drink, auto, technology, financial, health/beauty, and leisure/entertainment (e.g., movies, streaming services, and sports and celebrity websites). The three broad message objectives identified—information, transformation, and action—mirror the three components of attitude and are widely used, if differing slightly in definition and label. Our coding of message objective was guided by that of Taecharungro (2017): action objectives included sales promotions and other calls to action, information objectives included factual information and announcements, and transformational objectives (labeled emotion-inducing by Taecharungro) included imagery and sentimental or inspirational posts. Message tactics were determined in a process similar to that used by Tafesse & Wein (2018). First, an extensive list of tactics, brand post categories, and subtypes was derived from the literature. Next, an initial review of the posts was conducted to identify the most common tactics and any additional tactics not included. The final list included four commonly identified tactics—sales promotion, cause/institutional, image/experiential, and straight sell/functional—and one additional tactic, labeled curiosity. Curiosity was used to describe sponsored messages that enticed the viewer to click by arousing curiosity with tactics such as, "Which recipe is your state known for?" In cases where ads employed more than one tactic, the one most prominent was coded. Intercoder reliability, as measured by Cohen's kappa, was .83 for objectives and .64 for message tactics. These levels are considered "substantial" or better (McHugh, 2012). Discrepancies in categorizations were resolved through discussion.

RESULTS

Advertiser profile

The sample included 120 different advertisers across the 140 sponsored posts. Fifty-six percent of the advertisers were relatively new companies, defined as founded in 2000 or later, and only 12% were in the top 100 of US advertisers, as measured by Adbrands (Adbrands.net, 2015). There were no significant differences in advertiser age category or ad spending category by platform.

Descriptive statistics

Prior to testing our hypotheses, we compared differences in message strategy usage and overall engagement between the two social media sites. Tables 2 and 3 show the frequencies of message objectives and tactics for Facebook and Twitter. Action was most common objective and straight sell and promotions were most common tactics across both sites. There were no significant differences between sites.

Table 2
Frequency of Objective by Site

	Facebook	Twitter	Total
Action	83.1% N = 54	6.0% N = 57	79.3% N = 111
Information	9.2% N = 6	16.0% N = 12	12.9% N = 18
Transformation	7.7% N = 5	8.0% N = 6	7.9% N = 11
Total	100% N = 65	100% N = 75	100% N = 140
$\chi 2 = 1.46$, $p = .48$			

Table 3 Frequency of Tactic by Site			
	Facebook	Twitter	Total
Cause/Institutional	4.6% N = 3	1.3% N = 1	2.9% N = 4
Curiosity	24.6% N = 16	18.7% N = 14	21.4% N = 30
Image	6.2% N = 4	6.7% N = 5	6.4% N = 9
Promotion	33.8% N = 22	30.7% N = 23	32.1% N = 45
Straight Sell	30.8% N = 20	42.7% N = 32	37.1% N = 52
Total	100.0% N = 65	100.0% N = 75	100.0% N = 140
$\chi 2 = 3.34$, $p = .50$			

Table 4 shows mean likes and shares/retweets for Facebook and Twitter. Mean likes were greater than shares/retweets for both sites. Mean likes were significantly greater for Facebook than Twitter. Mean shares on Facebook were also greater than mean retweets on Twitter, but the difference not statistically significant.

Table 4 Mean Likes and Shares/Retweets by Site			
	Facebook	Twitter	Total
Likes	3077.18	620.72	1761.22
	N = 65 SD = 9826.72	N = 75 SD = 2077.57	N = 140 SD = 6947.72
Shares/Retweets	1191.22	285.32	705.91
	N = 65 SD = 4702.11	N = 75 SD = 1034.84	N = 140 SD = 3309.95
Likes * Site: F = 4.46, p = .04; Shares/Retweets * Site: F = 2.64, p = .11			

Hypothesis tests

Tables 5 and 6 show mean likes and shares by objective and tactic. The differences in likes and shares by message objective were not statistically significant; however, the difference in likes and shares by message tactic was significant, providing partial support to Hypothesis 1. The mean number of likes and shares was greatest for the strategy least frequently found in our sample, cause/institutional, while the strategy with the lowest mean number of likes and shares, the straight sell, was most frequently used.

Table 5 Mean Likes and Shares/Retweets by Objective				
	Action	Information	Transformation	Total
Likes	1997.08	871.22	837.55	1761.22
	N = 111 SD = 7714.19	N = 18 SD = 2251.44	N = 11 SD = 2183.91	N = 140 SD = 6947.72
Shares/Retweets	773.95	464.72	414.00	705.91
	N = 111 SD = 3649.71	N =18 SD = 1520.96	N = 11 SD = 1256.35	N = 140 SD = 3309.95
Likes * Objective: F = .31, p = .74; Shares/Retweets by Objective: F = .11, p = .89				

Table 6 Mean Likes and Shares/Retweets by Tactic						
	Cause/ Institutional	Curiosity	Image	Promotion	Straight Sell	Total
Likes	10828.50	4255.97	1254.56	1034.53	341.02	1761.22
	N = 4 SD = 11980.36	N = 30 SD = 13439.75	N = 9 SD = 3173.15	N = 45 SD = 3207.11	N = 52 SD = 684.05	N = 140 SD = 6947.72
Shares/Retweets	3349.00	2092.40	752.00	231.33	105.42	705.91
	N = 4 SD = 3825.17	N = 30 SD = 6766.72	N = 9 SD = 2155.98	N = 45 SD = 922.46	N = 52 SD = 253.61	N = 140 SD = 3309.95
Likes * Tactic: F = 3.60, p = .01; Shares * Tactic: F = 2.74, p = .03						

Tables 7 and 8 show the frequencies of message strategies by product category. Chi-square tests confirmed that there were significant differences in objectives and tactics across categories, thereby supporting Hypothesis 2a. Action was the most common objective overall. All of the health and beauty messages and ninety-two percent of the leisure product messages were action oriented. Sales promotion was the most frequently employed tactic for health and beauty products and apparel products; straight sell was the most frequent for financial and technology products; and curiosity was the most frequent for leisure products.

Table 7
Frequency of Objective by Product Category

	Action	Information	Transformation	Total
Apparel/ Accessories	74.3% N = 26	11.4% N = 4	14.3% N = 5	100.0% N = 35
Automotive	20.0% N = 1	60.0% N = 3	20.0% N = 1	100.0% N = 5
Financial	77.8% N = 14	22.2% N = 4	0.0% N = 0	100.0% N = 18
Food	57.1% N = 4	0.0% N = 0	42.9% N = 3	100.0% N = 7
Health/ Beauty	100.0% N = 11	0.0% N = 0	0.0% N = 0	100.0% N = 11
Leisure/ Entertainment	91.7% N = 22	8.3% N = 2	0.0% N = 0	100.0% N = 24
Tech	81.0% N = 17	14.3% N = 3	4.8% N = 1	100.0% N = 21
Other	84.2% N = 16	10.5% N = 2	5.3% N = 1	100.0% N = 19
Total	79.3% N = 111	12.9% N = 18	7.9% N = 11	100.0% N = 140
$\chi 2 = 34.90$, $p = .002$				

Table 8
Frequency of Tactic by Product Category

	Cause/ Institutional	Curiosity	Image	Promotion	Straight Sell	Total
Apparel/ Accessories	2.9% N = 1	5.7% N = 2	11.4% N = 4	42.9% N = 15	37.1% N = 13	100.0% N = 35
Automotive	0.0% N = 0	0.0% N = 0	20.0% N = 1	20.0% N = 1	60.0% N = 3	100.0% N = 5
Financial	0.0% N = 0	27.8% N = 5	0.0% N = 0	22.2% N = 4	50.0% N = 9	100.0% N = 18
Food	14.3% N = 1	14.3% N = 1	28.6% N = 2	42.9% N = 3	0.0% N = 0	100.0% N = 7
Health/ Beauty	0.0% N = 0	27.3% N = 3	0.0% N = 0	54.5% N = 6	18.2% N = 2	100.0% N = 11
Leisure/ Entertainment	0.0% N = 0	58.3% N = 14	0.0% N = 1	16.7% N = 4	25.0% N = 6	100.0% N = 24
Tech	0.0% N = 0	23.8% N = 5	9.5% N = 2	23.8% N = 5	42.9% N = 9	100.0% N = 21
Other	10.5% N = 2	0.0% N = 0	0.0% N = 0	36.8% N = 7	52.6% N = 10	100.0% N = 19
Total	2.9% N = 4	21.4% N = 30	6.4% N = 9	32.1% N = 45	37.1% N = 52	100.0% N = 140
$\chi 2 = 61.51$, $p = .00$						

Hypothesis 2b posits that product category moderates the effect of a given strategy on effectiveness. Following the test for moderation outlined in Baron & Kenny (1989), we performed a 2x2 ANOVA with likes as our measure of effectiveness and product category and tactic as independent variables. The effect of tactic on likes was significant ($\chi 2 = 10.02$, $p = .04$), but the interaction between tactic and product category was not significant ($\chi 2 = 17.93$, $p = .33$), thus H2b was not supported.

Hypothesis 3 posits that social media site moderates the effect of a given strategy on effectiveness. This hypothesis was also tested by performing a 2x2 ANOVA, as outlined above, with likes again as our measure of effectiveness, and tactic and site as independent variables. Social media site ($\chi 2 = 4.84$, $p = .03$), message tactic ($\chi 2 = 9.24$, $p = .05$), and the interaction between site and tactic ($\chi 2 = 10.64$, $p = .03$) were all significant, thereby supporting Hypothesis 3.

SUMMARY AND DISCUSSION

Given the interactive nature of social media, it was not surprising that action was the most common message objective. The mean number of likes for action-oriented posts was also more than twice that of informational or transformational posts, although the difference in effectiveness was not statically significant. A lack of statistical significance in this case should be interpreted with care, as the overwhelming dominance of action-oriented posts (79%) resulted in unequal sample sizes, which can reduce statistical power (Rusticus & Lovato, 2014). The difference in effectiveness by tactic was statistically significant. Cause-related posts garnered the most likes and shares. Although caution must be taken in generalizing the results as there were only four cause-related posts in our sample, the finding is consistent with recent research by Saxton, Gomez, Nigoh, Lin, & Dietrich (2019), who found that sharing was positively associated with messages that convey corporate social responsibility topics such as the environment or education. The tactic with the second most likes and shares, curiosity, represented over 20% of the sponsored posts and garnered more than twice the average number of likes and shares. The power of curiosity to increase consumer interest and learning (Menon & Soman, 2002) and predict purchase motivation (Hill, Fombelle, & Sirianni, 2015) in a simulated digital environment has been documented, so it is perhaps not surprising that it stood out as an effective strategy for engagement in the present study. Curiosity as a social media tactic has not been specifically addressed in prior coding schemes and seems worthy of further attention. Interestingly, the most frequently used tactic, the straight sell, representing 37% of the posts, was the least effective, accounting for only 20% of likes and 15% of shares.

Consistent with earlier research on advertising (Kim et al., 2015; Laskey et al., 1995), our results showed that advertisers have different objectives and use different tactics according to their product category. In our study, apparel/accessories and leisure/entertainment were the most common products advertised and were more likely to utilize action-oriented messages. For apparel, the tactic was sales promotions, while for leisure products, like movies and sports or celebrity websites, tactics played on curiosity. However, unlike some previous studies, our results did not support significant differences in tactic effectiveness by product category.

Previous studies have found different message strategies to be effective for Facebook (Tafesse & Wein, 2018) versus Twitter (Taecharungroj, 2017). The present study provides further evidence that tactic effectiveness will differ depending on social media site by directly comparing effectiveness of tactics for Facebook versus Twitter and finding a significant interaction. Among the more frequent tactics, curiosity was the most effective on Facebook and sales promotion was the most effective on Twitter. The success of cause-related and curiosity tactics on Facebook and sales promotions on Twitter may be attributed to differences in the nature of their content. As described by Smith et al. (2012), Facebook's focus is on personal information while Twitter's content is more focused on news and information.

CONCLUSIONS

More than twenty-five years ago, in a study on television commercials, Laskey et al. reported that, "some strategies were found to be particularly 'popular' in a category in spite of the fact that they were also found to be relatively ineffective…" (1995, p. 39). The present study seems to suggest that the same holds true today for social media. While advertisers are pursuing objectives such as action and employing tactics such as curiosity that are well-suited to social media, some tactics that seem to have promise, like cause-related posts, may be underutilized, while others, like the straight sell, are very common and less effective. In addition, there were no significant differences in the tactics used in Facebook versus Twitter messages in our sample, in spite of the fact that there were significant differences in tactic effectiveness between the two sites. These findings suggest that, in spite of the social media data analytics available to brands, there are avenues to improve engagement that are not being utilized to their full extent. Social media analytics, while great at revealing which posts worked, are less helpful at determining why a post worked, and are typically limited to insights on owned brands (Yamaguchi, 2015). Studies that use human judgment, while limited in sample size, may be able to uncover qualitative characteristics that analytics cannot, and thus provide valuable insight into why certain posts work.

LIMITATIONS AND FUTURE RESEARCH

The research presented in this study provides a snapshot of message strategy and message effectiveness in sponsored posts drawn from news feeds of a narrow demographic sample, undergraduate college students. The sampling frame resulted in a smaller sample of posts than found in studies that draw from posts on the brands' own social media pages. However, one advantage of a sample drawn from news feeds is that it includes smaller brands, which have been largely ignored in previous studies that have naturally focused on leading brands' social media pages. As smaller brands represent a large volume of social media advertising, more research is needed on their social media use, and how it might differ from large global brands. Finally, given the rapidly changing social media landscape, replication and expansion of the research is needed to better understand the advertising dynamics on Facebook and Twitter, and to investigate the growing number of new social media sites and the changes in advertising practices and effectiveness.

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SITE SELECTION STRATEGY: ECONOMIC FREEDOM AND STATE GROWTH

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ABSTRACT

This paper focuses on a strategy of site selection of corporate headquarters and if economic freedom should be a consideration for such within the United States. Furthermore, this paper will consider if managers should be concerned with state economic growth before choosing a location. Based on data for all 50 U.S. states, this paper investigates if site selection strategy of company headquarters should include consideration of economic freedom and state economic growth. As far as we know, economic freedom and growth for states within the U.S. have not been presented as considerations for management in company headquarters site selection to date. If state governments display a growth mindset by promoting an environment consistent with economic freedom, then management should gravitate to these more economically attractive states for their corporate headquarters. Our research supports that management could use economic freedom of a state to expedite the decision-making process for site selection, thus saving time and money for the organization.

Keywords: Economic growth, Economic Freedom, Location Strategy, Corporate Headquarters Location, Site Selection Strategy, State Economic Growth, Gross State Product

LOCATION STRATEGY

David Tepper, the billionaire head of Appalossa Management, moved his company headquarters and personal residence from New Jersey to Florida on January 1, 2016. What is interesting about this move is that it was immediately noticed by the New Jersey Office of Legislative Services (OLS), which reported that the state would be feeling the impact of this one move on its income tax forecast for New Jersey (Dopp, 2016).

In New Jersey, the Office of Legislative Services operates under the jurisdiction of the Legislative Services Commission, a 16-member bipartisan panel that establishes general operating and budgetary policies/reports for the OLS. The state of New Jersey receives approximately 48 percent of their state revenue from personal income taxes and more than a third of that 40 percent comes from the top one percent of taxpayers. Sad to say for New Jersey, Mr. Tepper, with an estimated personal fortune of an estimate 10 billion dollars, is at the top of the one percent list. Further research shows that New Jersey has the country's third highest tax

burden as compared to Florida where there is no personal-income or estate taxes. As many others before him, and undoubtedly as more to come, David Tepper voted in the most meaningful way possible toward New Jersey's tax policies—he moved.

The anecdote here suggests that a state's policies of imposing higher individual and corporate income tax rates are impactful upon individuals, knowledge workers, businesses, industries, and said state government's ability to enact and carry-out future policy decisions, thus minimizing potential economic growth. Conversely, there is compelling evidence demonstrating states with good policies – particularly private property, rule-of-law, freedom of entry and exit into occupations, and freedom to trade – create conditions fostering economic growth and enhanced quality-of-life (Galor, 2011).

Based on the migration of organizations from states with imposing tax rates to states with more freedom, we posit that management can utilize economic freedom ratings as the first step in determining a state to relocate company headquarters. Using this as a first step in site selection can save the valuable resources of time and money. Managers may not be consciously making decisions on economic freedom, but managers do make decisions based long term survival of the organization. From the opening anecdote, it is easy to understand how policymaking drove Mr. Tepper to relocation his organization.

Both current research and that reflecting the past 25 years has provided evidence to the linkage between economic freedom, state growth and migration. Furthermore, states with lower capital and wage tax rates, fewer barriers to entry into markets, the rule of law, along with political stability and good governance, likewise tend to have higher rates of economic growth, employment, migration, and entrepreneurship (Goldsmith, 1995; Ali, 1997; Farr et al., 1998; Heckelman & Stroup 2000; Ali & Crain, 2002; Dawson, 2003; Gwartney & Lawson, 2006; Clark & Pearson, 2007; Bergh & Karlsson, 2010; Cebula & Clark, 2011; Kuckertz et al., 2016). With few exceptions, this previous research suggests economic freedom is the foundational ingredient to prosperity at the state level. Prosperity is attractive to managers seeking new headquarters locations.

What is Economic Freedom?

James Gwartney, Robert Lawson, and Walter Block (1996) defined economic freedom in *Economic Freedom of the World*, 1975-1995 the following way:

> Individuals have economic freedom when (a) property they acquire without the use of force, fraud, or theft is protected from physical invasions by others and (b) they are free to use, exchange, or give their property as long as their actions do not violate the identical rights of others. Thus, an index of economic freedom should measure the extent to which rightly acquired property is protected and individuals are engaged in voluntary transactions.

Simply put, the freer economies operate with minimal government interference, where management may rely upon choices and markets to answer basic economic questions such as

what is to be produced, how it is to be produced, how much is produced, for whom production is intended, and most importantly the corporate headquarters location where production/operations are at a comparative advantage. Put another way, economically freer businesses will be permitted to decide for themselves rather than having government and public policy impose restrictions on choices. This state economic freedom forms the foundation making new headquarters locations attractive to managers.

Corporate Headquarters and Economic Freedom

Prosperity and an enhanced quality of life are attractive qualities for organization and individual relocation. Currently, companies spend thousands of dollars on market research and this research contends that organizations should use the Economic Freedom Index (EFI) when making headquarters relocation decisions. Furthermore, this study focuses specifically on corporate headquarters relocations. The decision factors for corporate headquarters may vary from the decision factors for other organizational locations such as warehouses.

Selecting a location for a company headquarters is not a perfect science, but organizations can make well-informed decisions, which might make it closer to perfect. Organizations considering relocation must complete an external environmental scan and an internal scan to determine the needs and threats to the organization. Decisions on a headquarters location must not be made lightly, as these decisions will have a direct impact on the organization's ability to create sustainable competitive advantage and the ability to meet shareholder's needs. Managers that strategically choose a location set themselves up for success, thus maximizing shareholder value (Manning, Rodriguez, & Ghosh, 1999). Managers that seek relocation of the company headquarters for the sole purpose of lowering taxes, costs, or lease terms, are being near-sighted. Organizations must consider other factors, such as access to personnel, wage rate, unionization, taxes, business regulations, location of stakeholders, land prices, transportation, and utilities (Bartik, 1985), (Newman, 1983), (Wasylenko & McGuire, 1985), (Ho, Lee, & Ho, 2008). Organizations need access to knowledge workers, skilled workers, and customers (Dowell & Victoria-Jaramillo, 2017).

This paper is organized as follows: first, we provide a review of site selection, knowledge workers, economic freedom, and state growth. The next section will provide a description of the data and the empirical model along with a discussion of the findings. The final section concludes with limitations, applications for industry, and direction for future research.

CHALLENGES IN LOCATION DECISIONS

Location Decisions for Whose or Which Purpose?

Damron, Melton, and Smith (2015) stated that different types of businesses make location decisions for different purposes. They found industrial locations may initially make decisions based on factors such as shipping, and warehouse locations may consider speed of delivery, while revenue maximization is important to service industries. However, at the end of the day, Damron et. al (2015) found the size of the company is not of concern in relocation decisions.

In the service sector, location strategies often focus on increasing revenues, while in the industrial sector site selection focuses on lowering cost or cost savings. In selecting a location for a headquarters, it would be easy to choose the location with the lowest initial cost. The lowest cost does not mean the corporation will be able to meet the expectations of shareholders (Manning, 1999). Shareholders expect a return and making short-term profit decisions will likely have negative long-term consequences. Organizations may pursue innovations as a form of growth. Innovations can be thought of in terms of process efficiencies, new product development, technological developments and more. A key component to the identification and implementation of new innovations is access to knowledge workers.

Knowledge Workers

Many definitions of knowledge worker exist, however, for the purposes of this study; a knowledge worker is a person that uses their mind, not their body for work (Drucker, 1999). In the United States, the workforce is aging and many of the knowledge workers are retiring. The aging of the population is forcing organizations to seek out new workers to fill the knowledge void (Pobst, 2014). Jayasingam and Yong (2013) aligned with Drucker (1999) in recognizing the value of knowledge workers and the part they play in competitive advantage. Park, Howard, and Gomulya (2018) found that firms, which acquire knowledge workers, can potentially create new breakthrough knowledge.

In addition, the ability to attract and retain labor is critical to the long-term success of an organization. In 2011, Cebula and Clark stated that people relocate for two main reasons, economic conditions and/or environment and quality of life factors. This migration of people into a state increases population resulting in more knowledge workers available for work.

HOW ECONOMIC FREEDOM MAY FACILITATE DECISIONS

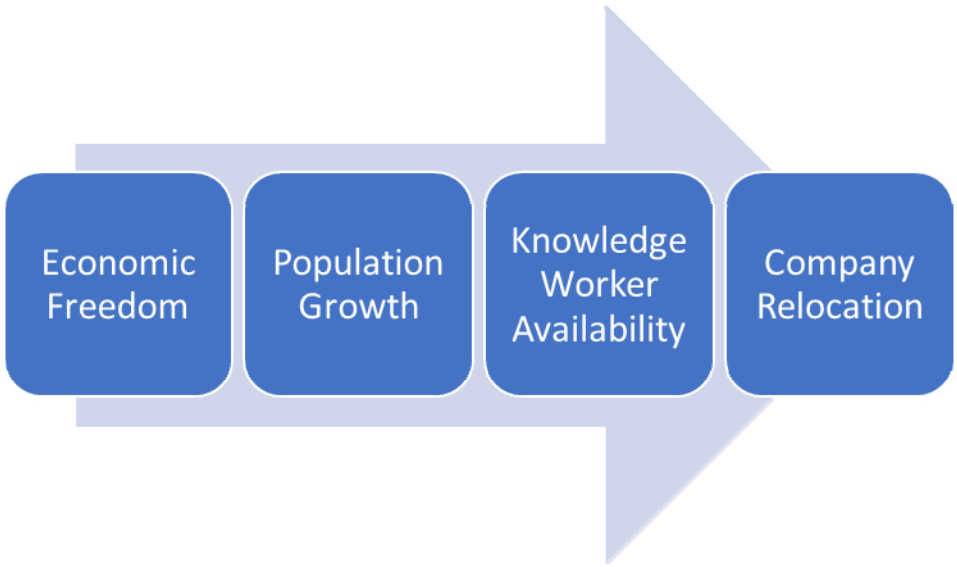
Gwartney, Lawson, and Holcombe (1999) found that increased economic freedom spurs economic growth and lack of economic freedom hinders economic growth. Furthermore, Gwartney et al. (1999) states individuals will have minimal incentive to enhance productivity if they are not given the freedom to try new processes. They further state that with economic freedom, workers collaborate and cluster in areas where comparative advantage exists. From this we can deduce that worker collaboration will result in innovations, positive net migration and possible develop of competitive advantages. Hunt (2011) found that competition created an environment consistent with innovation, and thus economic growth occurred. Milton and Rose Friedman (pg. 148, 1980) wrote:

> *Freedom means diversity, but also mobility. It preserves the opportunity for today's disadvantaged to become tomorrow's privileged and, in the process enables almost everyone, from top to bottom, to enjoy a fuller and richer life.*

STATE GROWTH

What causes state growth is one of the most enduring questions in economics. Adam Smith (1937) in *The Wealth of Nations* argued that free markets, the protection of private property rights, and a minimal government presence in the economy leads to prosperity and growth. In other words, economic freedom leads to economic growth. Perhaps one of the greatest economic freedoms is the freedom to earn an income and then spend according to individual choices. Yankow (2014) found wages increase by 2.5% for each standard deviation improvement in state economic growth.

Figure 1: State Economic Freedom to Economic Growth Progression



As depicted in Figure 1, we conclude from the literature that economic and personal freedom results in positive net migration which, in turn, results in population growth. Population growth results in more available knowledge workers. When knowledge workers can work in a location with low unemployment, the workers gain a sense of freedom to move to other organizations. This freedom avails managers to create innovative workspaces to attract more knowledge workers. Available knowledge workers create competition, and competition creates innovation. Innovation leads to comparative and competitive advantage for companies, ultimately resulting in economic growth.

The Economic Freedom Index measures many of the quality's companies seek during their initial location or relocation decision process. We posit that organizations may use the Fraser Institute's *Economic Freedom of North America Index* (EFI) as an initial resource in site selection for company headquarters (Stansel, Torra & McMahon, 2019). Use of the EFI may allow managers to narrow site selections to specific states, allowing the company to narrow the scope of locations while designating time, money, and other resources on specific city

identification. This research focuses on the hypothesis that companies will locate or relocate corporate headquarters to states that rank higher on the Economic Freedom Index within the United States, thus further contributing to maximizing shareholder wealth by saving time and money.

RESEARCH DESIGN

Data Sets

To enhance the existing evidence and to examine the possible combined effects of economic freedom, migration, and state growth on the decision strategy of site selection of company headquarters, data was analyzed from 1997 through 2018. Data was gathered for each U.S. state, on economic growth, the degree of economic freedom in each state, net migration for each state, and the number of Fortune 500 companies per state.

In this research, the data set used for growth is from the Bureau of Economic Analysis (BEA), published by the U.S. Department of Commerce. This measure used to determine economic growth for each state is Per Capita Gross State Product (PCGSP). This variable measures growth from one period to the next.

Therefore, this raises an important question. What conditions cause economic growth to be concentrated in some areas, but not in others? One possible answer is that market institutions make the difference. Gwartney et al. (1999) and Lawson (2002) came to this conclusion and presented corollary evidence concluding that measures of economic freedom are what count, and that democratically derived political institutions may, in fact, even have a negative effect on economic growth.

For this study, the widely cited Fraser Institute's *Economic Freedom of North America Index* for each U.S. state was chosen and utilized as a general measure of the freedom of citizens to pursue economic activities. This index is a composite measure of many state policies that affect the economic freedom of individuals. More specifically, the index uses the size of government, discriminatory taxation, the degree of business regulation, and labor market flexibility. It assigns each state a score on a scale of 1 to 10, with a greater number implying a higher degree of economic freedom. Furthermore, the overall index is comprised of two sub-indexes. The first is the all-government index, which includes the impact of all levels of government - federal, state, and local. The second index, called the subnational index, measures the impact of state and local governments on economic freedom for each state. Through examining these indexes, it is evident that decentralized versus centralized decision-making is what economic freedom brings to the market. In turn, higher economically free states create more competitive markets in which resources are allocated through private decisions born of individuals and companies rather than government. Important components of economic freedom are parallel maxims defining what constitutes advantageous practices or behavior patterns – limits on coercive property and income taxes; the extent of government control over the private sector (regulations on entry to markets); the liberty to work at the occupation and remuneration of one's choosing (licensing requirements); and the ability to buy or sell goods at prices determined independent of government (Friedman, 1962).

Another important element of economic theory that is often overlooked is the freedom of movement. Acemoglu, Johnson and Robinson (2005) suggest that population change, as a result of migration, is both a signal of and a causal factor through the Tiebout (1956) migration hypothesis (i.e., "voting with their feet") and the resulting compositional mix of local populations. Following Tiebout's insight, a vast amount of research has reinforced how policy differences and changes alter both the number and characteristics of individuals and businesses in cities or states (Greenwood, 1997). Referencing this previous research as a guide (Faggian et al., 2012, Partridge, 2010, Ferguson et al., 2007), it has become evident that persistent positive net migration rates reflect which locations are more-or-less preferred as associated with varying levels of regional and state attractiveness. Thus, net migration may be a suitable predictor of location preferences for both individuals and companies. It may be assumed that the individual and business behavior is utility maximizing relative to pecuniary, as well as non-pecuniary, costs and benefits of various regional and state locations. Policymakers in states such as California, New York, and Pennsylvania are particularly concerned about "brain drain", or the out-migration of highly skilled college graduates (Johnson & Reed, 2007). Subsequently, this research considers and defines these highly skilled college graduates as "knowledge workers." Therefore, according to the Tiebout hypothesis and other key research on population migration, "knowledge workers" as well companies should, and will, move to where opportunities present themselves. The hypothesis is that there should be a flow of population away from states where economic freedom is relatively restricted and into states where economic freedom is relatively available. Hence, a positive statistical relationship should exist between state growth, economic freedom, net migration, and site selection strategy.

Finally, the Fortune 500 data is an annual publication by Fortune magazine that measures the largest corporations in the United States by total revenue within that fiscal year. The list includes both publicly and privately held companies. Making the Fortune 500 list is a prestigious achievement for each company. Over the past 15 to 20 years the trend of these companies achieving Fortune 500 status has shown significant change. This research uses data on the Fortune 500 companies, per state, each year to see the trends and changes in relation to economic growth, economic freedom, and net migration.

Model

To enhance the existing evidence and to examine the possible combined effects of economic freedom, migration, and state growth on the decision strategy of site selection of company headquarters, we analyzed data from 1997 through 2018. Data was gathered for U.S. states on economic growth, the degree of economic freedom in each state, net migration for each state, and the number of Fortune 500 companies per state.

As noted earlier, economic freedom is an essential determinant of the state's ability to grow. Economic freedom also enhances the efficiency by which productive inputs are converted into output by increasing total factor productivity (vis-à-vis investments in human capital and technological change) and by enhancing capital accumulation. Although economic freedom has been a concept for many years, in the past 15-20 years its measurement has been facilitated by

the development of several indices which seek to roughly gauge the degree to which economic freedom exists. The Fraser Institute-developed economic freedom indices indicate the degree of economic freedom and broad respect for private property rights for the U.S. states, Canadian provinces, and countries around the world.

Economic freedom is clearly important for wealth creation. Current research has found that subnational units with greater degrees of economic freedom almost always experience higher rates of economic growth, ceteris paribus (Ashby & Sobel, 2008). This research uses the economic freedom index for the period 1997 through 2018. This economic freedom principle is illustrated in Table 3 where the top 5 U.S. states with the highest economic freedom index are as follows: Florida (7.87), New Hampshire (7.65), Texas (7.52), Tennessee (7.43) and South Dakota (7.37). Those compared to the 5 U.S. states with the lowest economic freedom index are Alaska (4.80), California (4.71), West Virginia (4.48), Kentucky (4.45) and New York (3.90). The top 5 states have an average percentage change in real GDP of 3.58 as compared to 1.88 for the bottom 5 states, or approximately 1.7 percent higher than the bottom 5 states.

Economic freedom also generates economic growth. For the same period, those states whose economic freedom is in the top 5 have an average annual growth rate of 4.06 compared to a rate of 1.20 for the bottom 5 states. The growth rate for the top 5 states is approximately 2.86 percent higher than the bottom 5 states.

To the extent that economic freedom affects state economic growth, there should be a relationship between net migration and the number of Fortune 500 company headquarters located in those top 5 and bottom 5 states. The 2016 net migration sum for the top 5 states is +378,089 whereas the bottom 5 states experienced a net migration loss of 332,671. Those same top 5 states witnessed an increase of 27 Fortune 500 companies where the bottom 5 states lost 14 Fortune 500 companies.

The formal estimated regression takes the following functional form to explain U.S. state growth.

$$Y_i = C + \sum_{j=1}^{k} X_j \beta_j + \varepsilon_i \quad (1)$$

e.g.,

$$Growth_t = C + \beta_1 EF_{t-1} + \beta_2 Net\ Migration_t + \beta_3 Fortune500_t + \varepsilon_t \quad (2)$$

In dealing with panel data from 1997 through 2018, the regression is estimated using the Random effects model. The definition of the variables used in the empirical analysis are found in Table 1, the descriptive statistics for the variables are in Table 2, and the state data comparisons previously presented are found in Table 3.

Table 1: Variable Definitions (1997-2018)		
Variable	**Definition**	**Source**
PCGSP	Per Capita Gross State Product	BEA
EFALL	Economic Freedom All-Government Index	Frasier Institute
EFSUB	Economic Freedom Subnational Index	Frasier Institute
Fortune 500	Fortune 500 companies per US State	Fortune 2018
Net Migration	Net Migration per US State	US Census Bureau

Table 2: Descriptive Statistics for Equation (1) Variables (1997-2018)					
Variable	**N**	**Mean**	**Std Dev**	**Minimum**	**Maximum**
PCGSP	1100	4.4	2.71	-13.4	24.5
EFALL	1100	7.4	.342	6.07	8.10
EFSUB	1100	6.01	.874	4.20	7.68
Fortune 500	1100	9.804	13.48	0	58
Net Migration	1100	-23	58,064	-192,976	216,956

Table 3 Comparison Table (1997-2018)

Top 5 Economic Free States with Fortune 500 Companies

versus

Bottom 5 Economic Free States with Fortune 500 Companies

		Change in Fortune 500 Firms	Economic Freedom	Net Migration	% Change in Real GDP	State Growth	Unemployment
1	Florida	+7	7.87	216,956	3.8	4.43	3.6
2	New Hampshire	-1	7.65	1,777	3.7	3.57	2.5
3	Texas	+12	7.52	125,800	3.7	4.65	3.9
4	Tennessee	+7	7.43	32,274	3.1	4.65	3.5
5	South Dakota	-1	7.37	1,282	3.6	3.01	3.0
		+24	7.57	378,089	3.58	4.062	3.3
41	Alaska	0	4.80	-5,122	1.0	-3.63	6.6
47	California	-8	4.71	-122,123	3.5	4.36	4.2
48	West Virginia	0	4.48	-9,001	0.0	-0.02	5.3
49	Kentucky	-3	4.45	-3,449	2.1	2.46	4.3
50	New York	-3	3.90	-192,976	2.8	2.87	4.1
		-14	4.47	-332,671	1.88	1.208	4.9
	Difference (Top - Bottom)	38	3.10	710,760	1.70	2.85	-1.60

Discussion of Findings

To test the hypothesis, the constructed regression model addresses what possible effect economic freedom, net migration and the site selection of company headquarters have on state growth. To gain insight into this question, the model estimated is state economic growth in terms of the economic freedom variables, net migration, and the number of Fortune 500 companies per state. These results are found in Table 4.

Table 4: Estimation for Equation (2) Variables

Estimated Determinants of U.S. State Economic Growth, 1997-2018
Dependent Variable: Per Capita GSP (Random Effects)
standard error
t-statistics
p-value

	equation 1	equation 2
Estimation Method	All Government Random Effect	Subnational Government Random Effect
	EFALL	EFSUB
Measure of Economic Freedom	2.3393	0.3041
	1.2171	0.1117
	1.9200	2.7207
	0.0215	0.0033
Net Migration	7.52E-06	6.63E-06
	2.12E-06	2.22E-06
	3.3963	2.9858
	0.000364	0.001478
Fortune 500	0.016	0.0137
	0.007216	0.0071
	2.2304	1.9251
	0.0129	0.0273
Sample 1997 - 2018		
Included Observations	20	
Cross-sections Included	50	
Total Pool (balanced) Observations	1000	
	Weighted statistics	
R-squared	0.3957	0.3979
Adjusted R-squared	0.3821	0.3844

This is broken down into two parts: equation (1) regressing the all-government economic freedom index, net migration, and the Fortune 500 variables, on PCGSP state growth, and then equation (2) regressing the subnational government economic freedom, net migration, and the Fortune 500 variable, on PCGSP state growth. Results for the two estimations are reported in Table 4, which provides the estimated coefficients, the standard errors, and the *t*-statistics. The primary interest on the right side of the equation is the estimated coefficients for $EFALL_{t-1}$,

$EFSUB_{t-1,}$ (the economic freedom all-government index lagged one year, the economic freedom sub-national index lagged one year), *Net Migration*$_t$ and *Fortune*500_t.

Upon review, economic freedom, both at the all-government and subnational level, net migration and Fortune 500 has a statistically significant effect on GSP per capita or economic state growth. The regression results presented in Table 4 consistently show that economic freedom coupled with net migration and the number of Fortune 500 companies are consistent with the hypothesis that states with higher economically free states experience more growth that attracts more net migration and Fortune 500 companies. In other words, individuals and businesses are "voting with their feet" based on policy differences (economic freedom) among U.S. states. It is necessary to point out, that economic freedom measures a range of variables which determine how free people are to exchange among themselves, how much of their money they can keep, and the security of property rights, and how these properties work collectively not individually. This same proposition should hold for businesses and corporations in their decision process as to strategy of the location of the company headquarters. Therefore, state policy makers should pursue policies that ensure growth in economic freedom, net migration, and Fortune 500 companies in their respective states to promote long run state growth. This seems to illustrate Hayek's (1944) very idea, that, state governments are more equipped and capable of governing themselves, and the Tiebout, "vote with your feet" hypothesis that individuals, and now "businesses" do relocate to where more economic opportunities exist as evidenced by the economic freedom index.

Limitations

The study does have limitations. First, the study focused only on the United States and organization headquarters relocations. A focus on knowledge workers which are most often located in an organization's headquarters. The research did not include relocation of other facilities in a firm. If other facilities utilize knowledge workers, the use of the EFI in relocation decision making may be appropriate.

Another limitation is compilation of the data for company relocations. A single source was not available for headquarters relocation information, thus requiring us to limit the length of time for the study. Even with these limitations, the study can be replicated globally. Companies are increasingly using new terms to describe headquarters, such as, executive office, operations centers, and shared service centers. Therefore, more re-locations may have occurred than were reconsidered. Another limitation is the Economic Freedom Index has a two-year lag as the most recent year.

CONCLUSIONS

The strategy of site selection of company headquarters should be concerned with the economic freedom index as well as state growth before choosing a location. By creating a political, legal, and business environment consistent with economic freedom, states can significantly impact state growth, positive net migration, and the attraction of Fortune 500

companies. The findings presented here indicate that states that pursue and adopt more policies consistent with economic freedom are more likely to prosper and grow. For organizations seeking to create a competitive or comparative advantage, relocating their headquarters to a more economically free state may be the answer. People move to states with more economic freedom, and to attract skilled and knowledge workers, companies must follow.

Market feasibility studies can be expensive. However, based on the findings, managers could use the EFI as a first step in narrowing site selections to specific states. This allows an organization to maximize shareholder wealth to save time and money. By using the Economic Freedom Index to narrow to a specific state, then managers can turn their focus to additional key factors they believe will lead to development or maintenance of competitive advantage. Future research may focus on other organization locations such as manufacturing sites and warehouses.

Legislators may also be interested in this study. As a state pursues policies that ensure growth in economic freedom comes the issue of income inequality. At some point, governments may and will try to step in to try and correct the bad side of a perhaps "unfair" economic growth by transferring income and resources to low-income groups of the population that are not enjoying the benefits from this growth. This income redistribution can raise the unemployment rate and make access to workers harder for businesses. Thus, creating the possibility for organizations to move out of their state.

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