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Exploring the Effect of Coupon Proneness and Redemption Efforts on Mobile Coupon Redemption Intentions

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Abstract

This paper examined the impact of coupon proneness and redemption efforts on the intention to redeem or use mobile coupons from the smartphones in a sample of business students at Florida National University. The descriptive analysis, which was based on the Theory of Reasoned Action, Theory of Plan Behavior, Acquisition-Transaction Utility Theory, Unified Theory of Acceptance and Use of Technology, and The Technology Acceptance Model Theory, used the coupon proneness, redemption efforts and the intention to redeem or use mobile coupons scales adapted to mobile coupons setting. Structural equation modeling revealed two subcomponents of the coupon proneness (coupon propensity and enjoyment) and high and significant values of coupon propensity and enjoyment on the intention to redeem or use mobile coupons for the groups of students. However, the impact of redemption efforts on the intention to redeem or use mobile coupons was negative as expected, but weak and not significant.

Keywords: mobile coupons, electronic coupons, proneness, coupon redemption efforts, intentions to redeem mobile coupons

1. Introduction

Mobile promotions comprise information delivered on a mobile device, and offer an exchange of value that intends to drive a specific short-term behavior in the short term. Thus, mobile phones, tablets, mini tablets, phablets, and smartwatches (Andrews, Goehring, Hui, Pancras, & Thornswood, 2016) are examples of mobile devices through which manufacturers, retailers, and intermediaries generally send mobile coupons to customers to receive a prompt purchase response when inside or outside commercial locations. While the smartphone app has been the most important access vehicle to the Internet for some time, its share has increased to a point where it now eclipses all other digital media platforms combined. This speaks to how central the smartphone has become to our lives (Adam, 2016), as 191 million adults have used apps or the web on a smartphone on at least a monthly basis, up from 176 million during the third quarter 2015 (MarketingChart, 2016).

Mobile coupons have become a third marketing channel, after digital and print media. The mobile text messages redeemed inside stores to obtain a product or service discount are known as "m-coupons" (Hsu, Wang, & Wen, 2006). These mobile coupons have become increasingly effective as sales and communication tools, regarding the extent to which people from all ages, income levels, family structures, and civil status have become more aware of the benefits of using mobile devices for purchasing. These coupons offer marketers opportunities to connect with customers to obtain data on locations and customer behaviors as they are delivered, at any time of the day or week, during different situations that will stimulate unplanned purchases (Andrews et al., 2016). Moreover, mobile coupons display other advantages over print coupons, such as the possibility to be forwarded to a group of potential customers; they may be individually personalized depending on the individual's interest in different product categories. Further, mobile coupons cannot be lost, as they are carried in the cell phone's memory until redemption (Banerjee & Yancey, 2009).

Remarkably, beneficial marketing information is currently captured by sellers due to the intense interaction generated by individuals' mobile devices in various locations. Specifically, nearly 3 billion smartphones currently exist, as per Ericsson's Mobility Report (2014), and by 2020, 90% of the world's population will own a mobile phone. Hence, over 80% of digital coupon users in the United States redeem coupons via their mobile devices, and the number of electronic coupons redeemed will nearly double over the next three years, increasing

to 16 billion of the total 28 billion forecast connected devices by 2021 (eMarketer, 2015; Ericsson Mobility Report, 2014). One reason for this is that consumers are already in 'shopping mode' when coupons are pushed to them, either in the store or immediately outside, and are effectively primed for purchase; thus, coupons are typically redeemed at more than twice this level, with nearly one in seven online coupons redeemed. An observation of the desktop/laptop e-coupons (Internet coupons) redeemed in the wider context of all e-coupons reveals that these coupons are now dwarfed by coupons redeemed via mobile devices: they currently account for just under a third of redemptions, and are anticipated to decrease to 27% by 2017. Second, with only a small minority of mobile/tablet coupons redeemed through Pint-At-Home solution (PAH), this mechanism will comprise no more than 18% of all e-coupon redemptions this year, decreasing to approximately 15% by 2017 (Juniper Research, 2014).

This aforementioned market trend leads to researchers' ongoing interest in pursuing mobile coupons' impact on sales, profits, brand loyalty, and customer behavior. Thus, these facts are stimulating researchers' curiosity to increasingly study consumers' attitudes, reactions, and responses toward promotions in the context of new technologies applied to purchasing. As mobile promotions, and especially mobile coupons, have recently expanded, substantial new research opportunities have the potential to enrich consumer marketing behavioral theory for both academic and managerial applications. This study aims to describe how mobile coupon proneness and redemption efforts affect the intention to redeem mobile coupons from smartphones, using a sample of business students. This work is organized through three sections: (1) a literature review, describing the theoretical background of coupon proneness, redemption efforts or usage, and the intention to redeem or use mobile coupons; (2) an explanation of the study's methodology; and (3) a discussion based on the findings, and the conclusion.

2. Literature Review

2.1 Mobile Coupon Proneness

As a marketing tool, coupons offer consumers the possibility to purchase products at a reduced price, and customers who are stimulated by coupons are considered coupon prone. Coupon proneness is defined as an increased propensity to respond to a purchase offer due to the purchase offer's increased attractiveness caused by coupons (Swaminathan & Bawa, 2005). Further, this is considered a strong predictor of coupon usage. Although consumers may redeem coupons due to their proneness, it has been found that they will finally obey a reduced-price offer, among other factors, because of the value (quality to price ratio) offered by the coupon, their consciousness (Lichtenstein, Netemeyer, & Burton, 1990), and its attractiveness (Bawa, Srinivasan, & Srivastava, 1997). However, some other factors also contribute to the coupon proneness response: (1) consumers' attitude toward the act of using e-coupons, (2) consumers' attitude toward Internet searching, (3) consumers' subjective norms about e-coupons, and (4) consumers' past behavior of using e-coupons as important predictors (Chen & Lu, 2011).

The theory of planned behavior (TPB), as applied to the context of e-coupons, provides a solid framework to study coupon proneness in a mobile coupon context. This approach explains that consumers with high e-coupon proneness will be more sensitive to these types of promotions, which can positively affect purchase evaluations, as an increasing number of consumers are willing to use mobile coupons (Im & Ha, 2015). As per the acquisition-transaction utility theory (Thaler, 1983), a coupon's utility includes two benefits: economic (utilitarian motivation) and enjoyment (hedonic component). Individuals with value perceptions more dependent on transaction utility and less dependent on acquisition utility, and who are more willing to spend time to obtain a good deal (Garretson & Burton, 2003) are more likely to be coupon prone. As the price deal's coupon form affects the internal reference price, but does not affect the product's inherent need-satisfying ability, the value perceptions of coupon-prone consumers are more likely to be affected by transaction utility (Lichtenstein et al., 1990).

Enjoyment as the hedonic component refers to experiencing pleasurable interactions while shopping (Trevino & Webster, 1992). This is identified as a fundamental determinant of a technology's perceived ease of use (PEOU) when applied to purchasing (Sun & Zhang, 2008; Chuttur, 2009; Venkatesh, 2000) because consumers enjoy using a technology and underestimate the difficulty in a technological component's ease of use (Celik, 2011). Downloading and using mobile coupons can increase satisfaction and pleasure by providing intrinsically enjoyable elements, such as relaxation, and consumers can immerse themselves in an enjoyable shopping experience (To & Sung, 2014), giving them the feeling of being a smart consumer (Garretson & Burton, 2003). Thus, if consumers perceive the mobile coupon service as enjoyable, and respond to coupons more emotionally by displaying enjoyment using coupons more than evaluating their economic benefits (Guimond, Kim, &

Laroche, 2001; Lichtenstein et al., 1990), they may perceive the service as potentially easier to use (Im & Ha, 2014). This may positively affect their attitudes toward a new technology (Hsu & Lin, 2008), allowing for a more rapid adoption of mobile shopping (Yang, 2010) modality. Thus, both utilitarian and hedonic performances can ultimately influence consumers' attitude toward using mobile services (Ha & Im, 2014).

Utilitarian and hedonic components have both been studied from the unified theory of acceptance and use of technology (UTAUT). This theory is based on the theory of reasoned action (TRA) motivational model, TPB, a combination of TAM and TPB, a PC utilization model, and the innovation diffusion and social cognition theories to assess the likelihood of a new technology's success (Venkatesh, Morris, Davis, & Davis, 2003). Yang (2010) studied factors for the intention to use technology to predict intention and their impact. These factors include (1) effort expectancy, as either redemption effort or PEOU; (2) utilitarian performance expectancy; and (3) hedonic performance expectancy, as a component of utility theory, which this research uses to conceptualize and measure coupon proneness.

The UTAUT approach defines utilitarian performance expectancy as the degree to which an individual believes that using technology services will facilitate his or her achieving task performance, such as the flexibility of use, consideration of time and place, and personalization (Venkatesh et al., 2003). When consumers are provided ease of access and usage of mobile shopping services, these services will assist consumers in efficiently achieving their shopping goals. Alternatively, the hedonic performance expectancy is identified as the degree to which an individual believes that using technology services is enjoyable (Davis, Murphy, Owens, & Khazanchi, 2009), and involves experiential and emotional service aspects derived from the multisensory, emotive, and entertainment aspects of the experiences in the consumption process (Babin, Darden, & Griffin, 1994; Holbrook, 1999). This expectation is gained through the enjoyment of communicating with other people through mobile shopping services, or interacting through multisensory mobile service functions and features. When this expectation is met, the consumer's positive attitude toward using mobile shopping services should be significant (Yang, 2010); if this technology is effortless, the degree of hedonic performance expectancy will increase (Dabholkar & Bagozzi, 2002). Redemption efforts, as a relevant driver of using or redeeming mobile coupons, are addressed in the next section.

2.2 Redemption Efforts

Consumers' efforts to redeem coupons have been found to trigger the intention to use mobile coupons. As mobile coupons are distributed in a completely electronic environment, are always connected to the Internet, and customers always carry them (Karjaluouto, Jayawardhena, Kuckertz, & Kautonen, 2008), the consumer's skill and facility to search for coupons are relevant to coupons' usage intention and redemption rate (Chen & Lu, 2011). The cost of using mobile coupons is considerably lower than print coupons because mobile coupons are possessed digitally, representing customers' minimum effort in their redemption, and are thus easy and convenient for them to use (Sharl, Dickinger, & Murphy, 2005). The redemption of coupons is the consumer's specific investment to fully use the coupons (Kang, Hahn, Fortin, Hyun, & Eom, 2006), based on how the cost and benefits of this use compensate their effort to redeem them. Regardless of whether coupons are collected from newspapers or magazines, as with print coupons, or are received via one's personal mobile, the use of mobile coupons implies a learning process on behalf of the consumer as to how to store and use them from one's cell phone (Dickinger & Kleijnen, 2008).

The technology acceptance model (TAM) theory supports how PEOU technology impacts the attitude and intention to adopt and use mobile coupon services (Venkatesh & Davis, 1996; Jayasingh & Cyril, 2010; Ha & Im, 2014). The PEOU is the degree to which the prospective user expects the target system to be effortless, and determines the user's attitude toward technology, behavioral intentions, and eventually the technology's actual use (Davis et al*.,* 2009). Likewise, their redemption efforts are similar in meaning to TAM's PEOU factor, and have also been found to predict consumers' attitudes (Mittal, 1994; Ramaswamy & Srinivasan, 1998; Dickinger & Kleijnen, 2008). Both variables are used to assess the technology's complexity when it comes to explaining its impact on purchasing behavior. Consumers may believe that the mobile coupon service is relatively advantageous and effective if it is perceived to be simpler than other options, and worthwhile for all customers to use m-couponing (Kang et al., 2006; Dickinger & Kleijnen, 2008). Moreover, Ramaswamy, and Srinivasan (1998) found other factors that impact redemption efforts in a print coupon context. They found that distinct consumer segments exhibited different responses to the coupon's face value; the coupon type, which determines the effort required to collect and redeem it; and whether the coupon includes a preferred brand or a brand that the consumer occasionally purchases.

The relationship between redemption effort and attitude toward using a mobile coupon revealed a stronger

value-seeking effect in a mobile shopping context (Dickinger & Kleijnen, 2008). Rather than expending the extra effort to redeem a mobile coupon, they perceived the effort as a barrier to impede them from getting what they want in the bargain. As the redemption effort becomes too high, consumers might need to invest more (e.g., time in the consumption process), which might lead to a higher price than what they would prefer to pay. The consumers who value their time should be less likely to use coupons (Babakus, Tat, & Cunningham, 1988); thus, the higher the effort required to redeem a coupon, the less positive the consumer's evaluation of the coupon (Ramaswamy & Srinivasan, 1998), and that effort is influenced by the ease or difficulty with which consumers can redeem a coupon (Chakraborty & Cole, 1991). Therefore, if the entire redemption process is difficult for customers, the effort involved in redeeming m-coupons may negatively impact their attitude and the coupons' economic benefits (Babakus et al., 1988; Dickinger & Kleijnen, 2008); Reichhart, Pescher, and Spann (2013) found that this primarily applies to more price-sensitive customers. When consumers believe a new technology is easy to use, and compatible with their values and lifestyles, they may develop positive attitudes towards the target technology (Ha & Im, 2014).

Other deterrents exist in using coupons related to the effort in using them, including (1) the time cost expended by searching through media, organizing coupons, and redeeming them; (2) relevancy, which has been the most important driver for mobile non-usage because customers are less tolerant of irrelevant offers on their personal mobile devices; (3) technology limitations, which impede the process of easily using m-coupons and discourage customers from using them; (4) such issues as the number and clarity of the steps involved in the mobile service process, such as the clarity of commands and symbols; and (5) the extent to which the ease of use in mobile shopping services is associated with ease of access to mobile sites, as well as the ease of navigating mobile sites, and their function and features. Venkatesh et al. (2003) found that the effort expectancy effect on utilitarian and hedonic performance expectancies was positive and significant, and the authors indicated that both performance types significantly increase the effort expectancy and ease of access. Further, the use of mobile shopping services enhances mobile shopping service quality, enjoyment, and efficiency. Complexity, in other words, is the perception of the ease of use for new technology and is proven to reliably contribute to its adoption across many innovation types (Tornatzky & Klein, 1982), predicting actual mobile service adoption (Shankar et al., 2016).

In summary, the use of mobile services recognizes that such services' perceived benefits are diminished by the effort required from consumers (Pagani, 2004); therefore, actual coupon redemption requires some planning and implementation effort, in addition to the formation of intentions (Ramaswamy & Srinivasan, 1998). The inclusion of consumers' attitudes toward Internet searching is important, not only because the Internet is generally perceived as a powerful consumer information search tool, but also due to consumers' need to conduct Internet searches to print out or obtain a series of numbers for the redemption of a particular e-coupon at physical or online stores, which impacts their attitudes toward this marketing tool. When an individual holds a less positive attitude toward Internet searching, this will become a critical barrier in using e-coupons (Kang et al., 2006).

2.3 Intention to Redeem/Use Mobile Coupons

The TRA (Fishbein & Ajzen, 1975) and TPB (Azjen & Madden, 1986) are relevant approaches to explain the intentions to use print, electronic, and mobile coupons. The TRA contemplates attitudes, peer thoughts, and subjective norms, and states that consumers' intentions to use coupons are determined by their attitudes toward the act of using e-coupons. Further, perception involves whether peers think they should not expend the effort to clip, save, and use coupons. Additionally, subjective norms capture the social pressure a decision maker feels to perform or not perform a behavior.

The TPB adds a third antecedent construct, perceived behavioral control, to predict consumers' behavioral intention. Perceived behavioral control refers to consumers' beliefs regarding their access to the resources and opportunities needed to perform a given behavior; this is a crucial antecedent of the intent to redeem coupons (Kang et al., 2006). The TPB contemplates such non-motivational factors as time, money, skills, and others' cooperation (Azjen, 1985), which then impact behavioral intention, to the extent that if a person may have opportunities and resources and intends to perform a behavior, then he or she should successfully undertake the behavior. Chen and Lu (2011) applied this theory to understand consumers' e-coupon proneness, as a mediator to predict consumers' coupon redemption. The results suggested that consumers' behavior toward redeeming e-coupons is dependent on their past e-coupon usage. An individual's past behavior can often provide a better explanation of his or her contemporary behavioral intention (Bagozzi, Baumgartner, & Yi, 1992), as well as actual future behavior, as it may capture the automatic activation of intentions and expectations, such as those reflected in habits (Eagly & Chaiken, 1993). Further, evidence exists from the TAM perspective that perceived usefulness, PEOU, and the perceived credibility of using mobile coupons through technology are determinants to

predicting the intention to redeem mobile coupons (Amin, 2007).

Jung and Lee (2010) compared the redemption rates of printed and electronic coupons, and analyzed how redemption rates change in both cases with the discount amount. E-coupons lead to higher redemption rates due to several factors: (1) consumers have full control over the coupons to be redeemed in an online context, primarily for their favorite brands; (2) this exacerbates coupon providers' financial profitability (Fortin, 2000); and (3) timing affects consumers' processing of advertising information (Mantel & Kellaris, 2003). When advertising messages are received in leisure or consumption-related times, the advertising seems more relevant (Baker & Lutz, 2000). The ability to incrementally redeem a coupon appears to depend upon the extent of consumer heterogeneity in the market, with respect to loyalty toward the couponed brand (substitution costs), responsiveness to face values (economic benefits), and disposition toward type of coupon vehicle (effort costs and psychological benefits). Additionally, the coupons' distribution method had different impacts on different types of consumers. For instance, regarding mail-in coupons, consumers labeled as "coupon chasers" incrementally redeemed an occasional brand approximately twice as much as a favorite brand, and were more coupon prone, given the emphasis on economic/psychological benefits and their willingness to redeem the coupons that required more redemption efforts. However, picky couponers exhibited a lower incremental redemption rate for an occasional brand mail-in coupon, relative to a mail-in coupon for a favorite brand (Ramaswamy & Srinivasan, 1998). The authors in this case did not find demographic variables as suitable predictors of coupon behavior, as also found by Mittal (1994).

3. Method

3.1 Research Design

The study was conducted to answer the following research questions: How do mobile coupon proneness and redemption effort affect the intention to redeem mobile coupons? The research question is framed using data regarding the mobile coupons that participants redeemed or used from their cell phones, either at home, in-store, or externally.

An electronic questionnaire was implemented to validate coupon proneness, redemption effort, and the intention to redeem mobile coupons, in the context of business students at Florida National University (FNU). The instrument contained the study's constructs, with an introduction specifying that the three constructs have no link with the dependent variable, or the intention to redeem mobile coupons.

The first phase obtained information regarding the mobile coupon proneness (MCP) of business students at FNU during the fall 2015 semester. The coupon proneness scale was adapted from the works of Lichtenstein et al. (1990) and Childers, Carr, Peck, & Carson (2001), with nine items. The second part of the questionnaire examined redemption efforts (RE) adapted from Dickinger and Kelijnen (2008) and Muk (2012), with four items. The third phase examined the intention to redeem/use mobile coupons (IUMC), adapted from Venkatesh and Davis (2000) and Chen and Lu (2011). Finally, six items were found to be appropriate in defining the intention to use mobile coupons. All the scales used to assess the three constructs were rated using a seven-point Likert-type scale, ranging from "1 – Totally Disagree" to "7 – Totally Agree." The final phase of the questionnaire included questions concerning demographics, gender, marital status, family structure, income, age, and a question related to the frequency of redeeming mobile coupons.

3.2 Data Collection and Analysis

The data was collected by an electronic survey distributed via e-mail between November 2015 and December 2015 from 352 undergraduate business students. The final sample comprised 273 responders (78%), and was encoded into an Excel file and imported into SPSS v.24 and AMOS v.24. After testing the univariate normality of the study's quantitative variables, the result indicated abnormal values of skewness and kurtosis. The tests used to assess normality (Kolmogorov-Smirnov and Shapiro-Wilk) provided a difference that was statistically significant from a normal distribution. Normality was satisfied by transforming the quantitative variables using an arithmetical log base-10 function (Log10). As a result, all variables improved their normality (skewness and kurtosis values). Additionally, five cases (180, 61, 77, 76, and 163) were identified as potential outliers and eliminated from the analysis. They displayed Mahalanobis distance values equal to or greater than 45.315, which is the selected critical value of the chi-square with 20 degrees of freedom. Moreover, the variance-covariance matrices' homogeneity was measured with Box's test, and was statistically significant ($F = 1.759$, $p < 0.001$), suggesting that no equality occurred in the variance-covariance matrices.

3.3 Internal Structure of Constructs and Measurement Model Evaluation

Three exploratory factor analyses (8 variables for MCP, 4 variables for RE, and 6 variables for IUMC) were

conducted using the 85 students' data. The factor analysis for the MCP with a varimax extract rotation method yielded a Kaiser-Meyer-Olkin (KMO) sampling adequacy measure of 0.839; Bartlett's test of sphericity indicated significance ($p < 0.001$, with chi-square = 554.981 and df = 28). The original scale content proposed by Lichtenstein, Netemeyer, and Burton (1990) for coupon proneness is behaviorally grounded, but some items relate to the enjoyment of coupon redemption. The exploratory factor analysis yielded a multidimensional structure for the mobile coupon proneness scale. Two factors demonstrated eigenvalues of greater than 1.00 (76.855% of the total variance). The factors obtained were *coupon propensity* (*CP,* 4 items), and *coupon enjoyment* (*CE,* 4 items) upon considering (1) the item content of the scale used by Lichtenstein, Netemeyer, and Burton (1990), with 8 items; (2) the coupon proneness construct encompassing utilitarian/acquisition meaning, or utility theory/UTAUT; and (3) transaction/hedonic elements, as determined by utility and UTAUT. Coupon propensity represents the coupon proneness related to utility benefits, and coupon enjoyment represents coupon proneness' hedonic components, as per the utility theory and UTAUT. The factor analysis performed for RE and IUMC indicated that the data sufficiently correlated between variables; therefore, this yielded only one component for each construct. Each construct resulted in adequate alpha values (with Cronbach's alpha coefficients greater than 0.7, demonstrating satisfactory reliability), MCP $\alpha = 0.91$, $p < 0.001$ (nine items); RE $\alpha = 0.76$, $p < 0.001$ (four items); and IUMC $\alpha = 0.95$, $p < 0.001$ (six items). The alpha coefficients for each scale, MCP, RE, and IUMC, were greater than 0.70, indicating high reliability (Nunnally, 1978).

After applying an exploratory factor analysis and obtaining two latent factors for MCP, one for RE, and one for IUMC, a confirmatory factor analysis was conducted to determine whether the hypothesized factors for MCP with their associated indicator variables fit the data (evidence of validity) through a structural equation modeling technique (SEM). This technique uses various types of models to depict relationships among observed variables, with the same basic goal of providing a quantitative test of a theoretical model hypothesized by the researcher (Schumacker and Lomax, 2010). Several indices are used to interpret the good model fit such as Goodness-of-Fit Index (GFI), Comparative Fit Index (CFI), Normed Fit Index (NFI), and Root Mean Square error of approximation (RMSEA). GFI is an alternative to the Chi-Square test and calculates the proportion of variance that is accounted for by the estimated population covariance (Tabachnick and Fidell, 2007), CFI assumes that all latent variables are uncorrelated (null/independence model) and compares the sample covariance matrix with this null model (Bentler, 1990), NFI assesses the model by comparing the $\chi 2$ value of the model to the $\chi 2$ of the null model (Bentler and Bonnet, 1980), and RMSEA tells us how well the model, with unknown but optimally chosen parameter estimates would fit the populations covariance matrix (Byrne, 1998).

The original model did not fit the indexes for NFI, CFI, and GFI as noted by the RMSEA (Table 1). A review of the modification indexes led to the model's re-specification using the latent factors' variables. The model's re-specifying process suggested (1) the inclusion of a path from the CP latent factor to the measured variable of CE (TV5); and (2) a correlation of error variances for TV2 and TV5, and TV3 and TV5, which are connected as part of the CE for a better model fit. (3) Further, the correlation for TV5 (from CE) and TV9 (from CP) also relates to enjoyment. The re-specified model's results achieved higher values for the indexes, indicating an improved fit between the model and the data (Table 1). The correlation coefficients (Table 2) were statistically significant ($p < 0.001$), and range from 0.23 to 0.96; therefore, the results suggest that TV2, TV3, TV4, and TV5 are indicators of CE; and TV6, TV7, TV8, and TV9 are indicators of CP.

Table 1. Chi-square and Goodness of Fit Indices for the original and re-specified Confirmatory Factor Models

Factor Model	χ^2	df	NFI*	CFI*	GFI*	RMSEA (PCLOSE/interval)**	AIC	BCC	ECVI
Original	74.413	19	.87	.81	.89	.018 (.000)	124. 413	130.413	1.481
Respecified	25.467	15	.95	.91	.98	.091(.133) (.015-.15)	83.467	90.427	1.315

Note. *(≥ .90) is considered acceptable. ** (p > .05) is considered acceptable.

Table 2. Respecified model with standardized regression weights

Variables		Factors	Estimate	S.E.	C.R.	P	Label	Standardized Reg. Weights
TV7	<---	CP	1.062	.143	7.417	***	par_1	.810
TV8	<---	CP	1.206	.196	6.158	***	par_2	.702
TV9	<---	CP	1.027	.167	6.162	***	par_3	.705
TV5	<---	CE	.398	.179	2.221	**.026***	par_4	.233
TV4	<---	CE	.994	.063	15.711	***	par_5	.953
TV3	<---	CE	1.063	.066	16.212	***	par_6	.963
TV2	<---	CE	1.000					.907
TV6	<---	CP	1.000					.781
TV5	<---	CP	.736	.183	4.018	***	par_8	.511

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

4. Results

4.1 Sample Characteristics

A total of 273 questionnaires were returned; 82 (30.03%) were men and 191 (69.97%) were women. The individuals were in the age brackets of 18–25 years (35.1%), 26–35 (27%), 36–45 (26%), and 46+ (5.5%). Further, 63.6% of the individuals annually earn between $21,000–30,000 (23%) and $30,000 or above (40.6%), and are either single (43.9%), or accompanied (54.8%: 25.2% married; 29.6%: in a relationship). Most of them are couples (30.4%) or single (43.9%) with children, and redeem coupons very frequently (24.1) or occasionally (37.3%). Thus, most of the respondents had redeemed mobile coupons when purchasing.

4.2 Predicting Intention to Use Mobile Coupons: Structural Model Estimation

This section elaborates upon the research question: How do mobile coupon proneness and redemption efforts affect the intention to redeem mobile coupons? The obtained structural model, displayed in Figure 1, assessed three predictors' direct effects on business students' intention to use mobile coupons (IUMC). The model consisted of one structural equation. First, it was predicted that the efforts to redeem coupons (RE), and the two latent variables, couponing propensity (CP) and couponing enjoyment (CE), would directly affect the intention to use mobile coupons (IUMC). It was also hypothesized that the exogenous variables, CP and CE, would positively correlate.

Each latent variable was measured using four indicator variables, as illustrated by the measurement model in Figure 1 and Appendix (survey items). The CP indicators were presented by individuals who would buy the brands for which they have a coupon, whether they are products they normally buy, and whether they derive a sense of enjoyment when using coupons, even beyond the feeling of saving money. The CE indicators were noted by the sense of enjoyment while using coupons to buy products. The redemption effort indicators were related to the ease or difficulty of the mental effort and time consumption when redeeming coupons from one's mobile phone. Finally, the indicators for the intention to use mobile coupons referred to the willingness to search, obtain, download, use, and receive details regarding the coupon's content to buy different products.

Five criteria were employed in assessing the measurement model. The chi-square test was not statistically significant, χ^2 (27, N = 85) = 32.950, p = 0.199, suggesting that the model fit the data. All fit measures, NFI = 0.951, GFI = 0.918, CFI = 0.990, and RMSEA = 0.051, P (CLOSE) = 0.452, suggested an excellent model fit to the data. No modifications were conducted to improve the measurement model. The correlation among the factors ranged from 0.23 to 0.96, which indicated sufficient discriminant validity among latent constructs to proceed (Kline, 2011). However, a non-significant correlation exists between RE and the IUMC (Table 3).

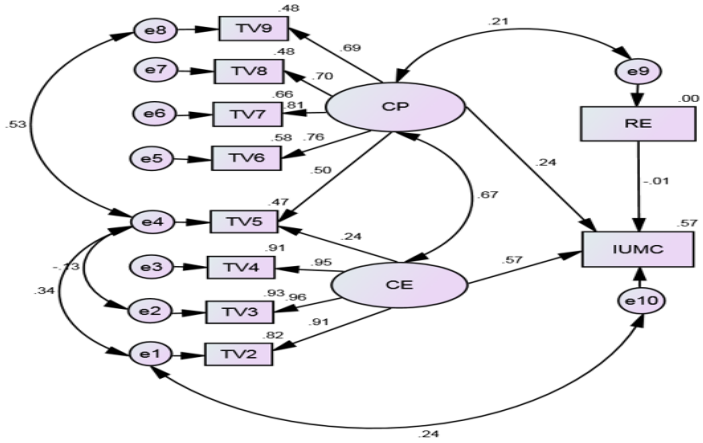

Figure 1. The full structural model

Table 3. Full structural model with standardized regression weights

Variables		Factor	Estimate	S.E.	C.R.	P	Label	Standardized Reg. Weights
TV7	<---	CP	1.094	.146	7.472	***	par_1	.815
TV8	<---	CP	1.232	.198	6.211	***	par_2	.696
TV9	<---	CP	1.042	.169	6.162	***	par_3	.694
TV5	<---	CE	.400	.176	2.272	**.023***	par_4	.237
TV4	<---	CE	.994	.063	15.657	***	par_5	.953
TV6	<---	CP	1.000					.761
TV5	<---	CP	.743	.183	4.058	***	par_7	.501
IUMC	<---	RE	-.010	.076	-.129	.897	par_11	-.010
TV2	<---	CE	1.000					.906
TV3	<---	CE	1.065	.066	16.215	***	par_12	.964
IUMC	<---	CP	1.452	.735	1.976	**.048***	par_14	.242
IUMC	<---	CE	3.896	.765	5.096	***	par_15	.571

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

The analysis' results partially support the model (Figure 1 and Table 3). Generally, the IUMC was driven by the direct effects of CP and CE. We found in this case that an increment in either coupon propensity or coupon enjoyment led to a higher intention to use mobile coupons. The CP positively correlated with the dependent variable IUMC ($r = 0.24$). Alternatively, CE more strongly impacted IUMC ($r = 0.57$). However, the direct effect of RE on the IUMC was not supported. The negative impact of RE ($r = -0.01$) on IUMC was theoretically expected, but its lack of significance was not.

5. Discussion

5.1 Theoretical Implications

The structural equation modeling tools used in this study identified two coupon proneness components, coupon propensity and coupon enjoyment, as well as differences in correlations among coupon propensity, coupon enjoyment, and redemption efforts with the latent variable intention to use mobile coupons. The path coefficients from the coupon propensity and coupon enjoyment that were tested proved to be important predictors of the intention to redeem or use mobile coupons. Regarding coupon propensity (measured by four items), it was observed that the participants demonstrated a positive customer purchase response through mobile coupons to the brands they are more loyal to ("I have favorite brands, but most of the time I would buy the brand I have a mobile coupon for"; "I am more likely to buy brands for which I have a mobile coupon"; "Mobile coupons would cause me to buy products I normally would not buy"; and "Beyond the money I save, redeeming mobile coupons would give me a sense of joy"). The results revealed that the coupon's perceived value is a crucial variable. The propensity to use mobile coupons increases if the utility given by the discount is attractive to customers, allowing them to save money for the favorite brands they find when searching and evaluating alternatives because the coupon offers a worthy deal. Thus, customers perceive an economic benefit when using mobile coupons. This study's prediction corroborates the results that Lichtenstein et al. (1990), and Im and Ha (2015) found regarding (1) transaction utility is more likely to impact coupon-prone consumers' value perceptions; and (2) mobile coupon-prone consumers evaluate mobile coupons more positively when they are more focused on the face value or economic benefit of their purchase.

Coupon enjoyment, measured by four items, had a stronger impact than coupon propensity on the intention to use mobile coupons. Coupon enjoyment in this case was primarily defined by the joy that customers expressed when clicking the mobile coupon, reading its content, and experiencing a worthy purchase deal ("Redeeming a mobile coupon would make me feel good; "I enjoy clicking on the mobile coupon to see its content"; and "If I use mobile coupons, I feel that I am getting a good deal"). The promotional content seemed to be an attractive component of mobile coupons, as well as the incentive (or discount) provided by the tool, which produces a stimulus to use it. This indicates that the coupon content and the perceived advantages offered by the experience of handling them on the mobile device are important components of its attractiveness (Swaminathan & Bawa, 2005), and also in the context of mobile devices. The higher correlation of the intention to use mobile coupons indicates that the pleasure and satisfaction experienced by customers when finding attractive and enjoyable elements in the promotion minimizes the impact of solely economic benefits (Garretson & Burton, 2003; Guimond et al., 2001). Therefore, as Yang (2010) posited, this results in a higher likelihood of redeeming/using mobile coupons. The enjoyable elements and amount of mobile promotional discount should equally have considered, as these will define coupons' effectiveness in a mobile context, although enjoyment non-significantly

influences on adoption intention, as found by Im and Ha (2012).

Redemption effort was the third independent variable used in the study and measured by four items, with coupon propensity and coupon enjoyment. It was anticipated that the research question would be resolved with this variable's negative and statistically significant impact on the intention to use mobile coupons, as obtained in earlier studies. While these studies emphasized that (1) the cost of using mobile coupons is considerably lower because mobile coupons are kept digitally; (2) customers expend a minimum effort to redeem them, which makes coupons easy and convenient for consumers (Sharl, Dickinger, & Murphy, 2005); and (3) the consumer skills and facilities to search for coupons are relevant to the coupons' usage intention and redemption rate (Chen & Lu, 2011), this study's results yielded a negative correlation regarding the intent to use mobile coupons, which aligned with the aforementioned contributions, but was weak and not significant. The study participants' perception of obtaining mobile coupons as a complex, difficult, mentally strenuous, and time-consuming task did not seem to deter them from mobile coupon usage. They actively searched, downloaded, saved, and used coupons on their mobile devices. Therefore, although they did not actively search for them, coupons may more closely align with their interests, and might be more powerful, as participants can more quickly decide what to buy through their mobile devices (Alpar & Winter, 2014).

5.2 Managerial Implications

As mobile coupons are a marketing tool to stimulate customers to buy goods and services in an online setting from their mobile devices, this study also has practical implications for manufacturers and distributors that use this communication channel to provide customers rapid access to products. The results indicate that the intention to redeem or use mobile coupons is driven by (1) the propensity to respond to a purchase offer due to its increased attractiveness, created by coupons to buy brands that the customers are looking for (coupon propensity); and (2) the enjoyment experienced by customers who respond more emotionally to coupons, as they are not only receiving information about the offer through the coupon's content, but also for enjoyment at using their mobile phones' functions and features (coupon enjoyment). This study revealed that customers' enjoyment may more substantially impact their decision to redeem coupons from a mobile device than the coupon propensity based on the coupon's offered utilitarian reward. The mobile coupon's attraction and enjoyment allows marketers to identify what coupon features and information are effective, and allows customers to not only spend more time in obtaining details about their favorite brands, but also discover better and faster ways of acquiring the product by avoiding brand switching, which is couponing's primary objective.

Marketers and distributors should consider another factor when offering promotions through mobile devices to customers: the effort that customers must make to redeem or use a mobile coupon. Previous research notes that the customers' redemption efforts are a relevant factor leading to their use of coupons. The more effort made by customers to redeem or use a coupon, the lower the intention to redeem the coupon; which is also applicable to mobile devices. This study found a negative impact on the intention to redeem mobile coupons. Managers should continue making all mobile coupon components attractive to increase mobile coupon redemption rates, such as increasing the promotion's discount amount and the features and content provided by the mobile coupon itself to provide information, fun, pleasure, and satisfaction to customers. Reducing the time and effort in redeeming a mobile coupon can increase redemption rates, as well as the intention to continue gaining information about the product. Further, this can increase the downloading and using of mobile coupons at all times in online and in-store shopping, whether when in one's home or traveling.

Marketers should continue offering customers a superior quality purchase process through mobile devices to increase online and in-store mobile coupon redemption/usage. From an ease of use (technology factor) perspective, marketers can respond to customers' needs and experiences before, during, and after the purchase process. Consequently, the customer's interaction with mobile features allows sellers to benefit from individualized customer data, as they can study and analyze purchase patterns. Sellers can improve the quality of both mobile promotions and distribution channel activities, leading to improved product delivery effectiveness.

6. Conclusion, Limitations, and Future Research

Coupon proneness is defined as an increased propensity to respond to a purchase offer due to its increased attractiveness, as created by coupons (Swaminathan & Bawa, 2005); this encompasses specific components: propensity and enjoyment. Coupon propensity is named in this study as proneness related to the mobile coupon's utilitarian benefits, as per the acquisition-transaction utility theory (Thaler, 1983), and the utilitarian performance expectancy, as stated by the unified theory of acceptance and use of technology (Kim, Galliers, Shin, Ryoo, & Kim, 2012). Likewise, coupon enjoyment is defined as the degree to which the user finds the technology enjoyable for its own sake (Im & Ha, 2012) and the satisfaction derived from using the technology. Further, it is

identified as fundamental determinant of the technology's PEOU when applied to purchasing (Sun & Zhang, 2008; Chuttur, 2009; Venkatesh, 2000). Additionally, redemption effort is defined by consumers' effort to redeem coupons, and is influenced by the ease or difficulty by which consumers can redeem a coupon (Chakraborty & Cole, 1991).

This study's primary objective, based on the research question, was to discover the impact of both coupon propensity and redemption efforts on the intention to redeem or use mobile coupons, or coupons redeemed via mobile phones. Coupon proneness and redemption efforts have been found to be important reasons for redeeming or using mobile coupons by Dickinger and Kleijnen (2008), and Im and Ha (2015). Other general factors have been identified leading to the intention to redeem or use coupons, such as attitudes, peer thoughts, subjective norms (Fishbein & Ajzen, 1975; Azjen & Madden, 1986), perceived behavioral control (Kang et al., 2006), and such non-motivational factors as time, money, skills, others' cooperation (Azjen, 1985), past e-coupon usage (Chen & Lu, 2011; Bagozzi, Baumgartner, & Yi, 1992), perceived usefulness, PEOU, and the perceived credibility of using mobile coupons through technology (Amin, 2007).

This study's results reiterate that mobile coupons' use for not only information, utility benefits, and economic value purposes but also enjoyment and entertainment (utilitarian and hedonic performance) both impact customers' intention to continue using this promotional tool (Ha & Im, 2014). Consumers' efforts when clicking, reading, analyzing, and enjoying mobile coupons' content will continue to be a strong factor when redeeming or using coupons. However, despite this study not finding such relevant influence on mobile coupon usage intentions, this does not contradict the notion that the easier mobile coupons are redeemed, the higher the probability of this promotion's effectiveness as a marketing tool. Marketers should further emphasize consumers' ease in redeeming mobile coupons to obtain more profitable results from mobile technology use.

The exploratory and confirmatory factor analyses used in this study yielded general components of redemption efforts, such as the intention to redeem or use mobile coupons, and identified subcomponents for coupon proneness (propensity and enjoyment), which were not offered by the original coupon proneness scales used in previous studies. Some limitations were inevitable, which warrant careful consideration. First, the results lack generalizability across the United States, as this study was conducted on one sample of students at FNU. Second, although some demographic and behavioral variables, such as the frequency of using mobile coupons on the cell phone, were used to describe the samples, they were not used to produce deeper conclusions.

Shankar et al. (2016) suggests that there are innumerable research questions to answer pertaining to the development of a theoretical and empirical contribution to mobile marketing, mobile promotions, and mobile coupons in different purchase situations. First, this study recommends the continuing analysis of coupon proneness (coupon propensity and enjoyment), redemption efforts, and intention to redeem or use mobile coupons, as these have the potential to improve sales, profits, and customer satisfaction once the ease of use and mobile coupon attractiveness are boosted by superior promotional design. Second, future studies can focus on exploring the impact of coupon propensity, coupon enjoyment, and redemption efforts on sales, profits, customer satisfaction, and mobile repurchase intention, as moderated by demographic and behavioral response variables, to identify purchase situations in which the mobile coupon might be effective. Fourth, from a sociopolitical perspective and regarding the relationship marketing approach as applied to distribution channels, it would be noteworthy to study the seller-customer relationship upon power/dependency interaction in the mobile coupon context, to draw conclusions regarding the customer's behavioral responses to the product decision-making process in an electronic context.

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Appendix A

Definitions Used in the Study

Coupon proneness	An increased propensity to respond to a purchase offer due to the purchase offer's increased attractiveness caused by coupons (Swaminathan & Bawa, 2005).
The theory of planned behavior (TPB)	Explains that consumers with high e-coupon proneness will be more sensitive to these types of promotions, which can positively affect purchase evaluations.
Enjoyment	Refers to experiencing pleasurable interactions while shopping (Trevino & Webster, 1992).
Unified theory of acceptance and use of technology (UTAUT)	This theory is based on the theory of reasoned action (TRA) motivational model, TPB, a combination of Technology Acceptance Model (TAM) and TPB, a Personal Computer (PC) utilization model, and the innovation diffusion and social cognition theories to assess the likelihood of a new technology's success (Venkatesh, Morris, Davis, & Davis, 2003).
Utilitarian performance expectancy	The degree to which an individual believes that using technology services will facilitate his or her achieving task performance, such as the flexibility of use, consideration of time and place, and personalization (Venkatesh et al., 2003).
Hedonic performance expectancy	The degree to which an individual believes that using technology services is enjoyable (Davis, Murphy, Owens, & Khazanchi, 2009), and involves experiential and emotional service aspects derived from the multisensory, emotive, and entertainment aspects of the experiences in the consumption process (Babin, Darden, & Griffin, 1994; Holbrook, 1999).
Redemption Efforts	Consumers' mental and technical effort to redeem coupons, and is influenced by the ease or difficulty by which consumers can redeem a coupon (Chakraborty & Cole, 1991).
Intention to redeem/use mobile coupon	Intentions to use print, electronic, and mobile coupons based on attitudes, peer thoughts, and subjective norms, and states that consumers' intentions to use coupons are determined by their attitudes toward the act of using e-coupons.

Appendix B

Questionnaire Used for the Study

Part I: How often have you used coupons from your cellphone to buy any product or service? (If never, please continue taking the survey anyway.) (V2)

Very frequently _____ Frequently _____ Occasionally ____ Never _____

Part II:

Items

Coupon proneness Adapted from Lichtenstein et al. [1990]; Im and Ha [2012]	
TV*2	Redeeming mobile coupon would make me feel good.
TV3	I would enjoy clicking on the mobile coupon to see its content.
TV4	If I use mobile coupons, I feel that I am getting a good deal.
TV5	I would enjoy using mobile coupons, regardless of the amount I save by doing so.
TV6	I have favorite brands, but most of the time I would buy the brand I have a mobile coupon for.
TV7	I am more likely to buy brands for which I have a mobile coupon.
TV8	Mobile coupons would cause me to buy products I normally would not buy.
TV9	Beyond the money I save, redeeming mobile coupons would give me a sense of joy.

Redemption efforts	
Adapted from Dickinger and Kelijnen [2008], and Muk [2011]	
TV11	It is complicated to get mobile coupons.
TV12	Mobile coupon redemption requires little mental effort.
TV13	Usage of mobile coupons is time consuming.
TV14	It is hard to redeem mobile coupons.
Intention to Redeem/use mobile coupons	
Adapted from Venkatesh and Davis [2000], Chen and Lu [2010]	
TV16	I will search mobile coupons on the Internet for later usage.
TV17	I will obtain mobile coupons on the Internet for later usage.
TV18	I will intend to download mobile coupons for later usage.
TV19	I will intend to use mobile coupons in doing my shopping.
TV20	I will intend to get more details about mobile coupons.
TV21	I will intend to use mobile coupons if they offered to me.

Notes. TV* Transformed variables as demanded by the normality test. TV10 Mobile coupons are easy to redeem, and TV15 Storing mobile coupons is easy. Both items were removed from the study after performing the scale reliability analysis (Alpha coefficient).

Part III: Classification

Gender: Male ____ Female ____

Age: 18-25 _____ 26 – 35 ____ 36-45 ____ 46+ ____

Marital Status:

Single ____ Married ____ In a relationship ____

Family Structure:

Single with children ____ Couple with children _____ Couple without children ____

Income:

Under $10,000 ____ $10,000 to $20,000 _____ $21,000 to $30,000 ____ $30,000 or above ____