Factors Influencing Impulse Buying of Sport Team Licensed Merchandise

Hyungil H. Kwon
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Abstract

Impulse buying broadly refers to the immediate urge to engage in unplanned purchases. Sport consumers may exhibit many of the characteristics that foster a tendency to engage in impulse buying. Further, due to the increased channels of the distribution of sport, sport team licensed merchandise is prominently displayed and distributed in a manner that encourages impulse buying. To examine the impulsive tendencies to purchase sport team licensed merchandise, an exploratory investigation involving a sample of college students (n=145: 48 males and 97 females) was conducted. Multiple regression analyses were employed to ascertain the degree to which shopping enjoyment, time availability, money availability, and level of identification with the respective sport team influenced impulse buying of merchandise displaying the sport team's logo. The results revealed that the only significant antecedent to impulse buying of sport team licensed merchandise was the students' identification with the university's sport team. Sport team identification also influenced the amount of money spent on impulsive sport purchases. No gender differences were revealed in terms of impulse buying of sport team licensed merchandise.

Introduction

Impulse buying is a commonly detected phenomenon in consumption situations. Practitioners and scholars have considered impulse buying as a consumption behavior for more than fifty years (Clover, 1950). Market development strategies and technological advancements, such as credit cards, the increase in the presence of ATM machines, the prevalence of convenience stores, home shopping convenience, internet shopping opportunities, and telemarketing, continue to offer various ways to ease and encourage customer shopping (Rock, 1987). As such, the frequency with which consumers engage in impulse buying continues to increase. In large department stores, impulse buying accounts for 27% to 62% of the total sales (Korganokar & Bellinger, 1980). Regarding the profile of impulse

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examined impulse buying of sport team licensed merchandise. In the context of this study, sport team licensed merchandise refers to products that contain the name, logo, or other brand markers of a sport team. Although sport products have characteristics that encourage consumers to engage in impulse buying, sport marketers have underexamined sport consumers’ impulse buying behaviors. Sport researchers have, however, undertaken research that has implications for impulse buying. For instance, Cialdini, Borden, Thorne, Walker, Freeman, and Sloan (1976) did not examine impulse purchases directly but examined the connection between sport apparel and team identification. Their research revealed that college students tended to wear clothes that identified them with their school more after a victory by the school’s sport teams to enhance their self-esteem (i.e., associating themselves with successful others). This current study embraces the association between sport team identification and the propensity to wear sport apparel as revealed in Cialdini et al. (1976) and seeks to apply such dynamics to impulse buying tendency in a sport context, noting the implications for sport marketing.

Definition and Operationalization of Impulse Buying

According to Kollat and Willet (1969), the meaning of impulse purchase varies from study to study. Consequent to the various operationalizations of impulse buying and due to the ambiguities associated with the definition of impulse buying, findings regarding impulse buying have been inconsistent (Cobb & Hoyer, 1986; Dittmar, Beatty, & Friese, 1995). In Cobb and Hoyer’s (1986) operationalization of impulse or unplanned purchasing, they suggested measuring the discrepancy between the items that a customer planned to buy before they enter a store, the items that they actually purchased, and the time when the decision was made to buy a product (i.e., before or after entering the store). The definition of impulse buying that is frequently used in the impulse buying literature, however, was provided by Rock (1987), which basically positioned impulse buying as the powerful and persistent urge to buy something immediately. Each of these operationalizations and definitions depicts the essence of impulse buying; however, they are still somewhat problematic. For instance, querying a customer about purchase intentions before entering a store is likely to have an influence on the customers’ shopping behavior. Also, the information that customers provide before they enter a store may not be the full list of the products they intended to buy due to the constraints in memory and the challenges of remembering purchase intentions (Cobb & Hoyer, 1986).

Perhaps the most comprehensive definition of impulse buying was provided by Beatty and Ferrell (1998). They contended that impulse buying was:

“A sudden and immediate purchase with no pre-shopping intentions to buy the specific product category or to fulfill a specific buying task. The behavior occurs after experiencing an urge to buy and it tends to be spontaneous and without a lot of reflection. It does not include the purchase of a simple reminder item, which is an item that is simply out-of-stock at home” (p 170).

Thus, based on Beatty and Ferrell’s (1998) definition, impulse buying: (a) stems from a consumer’s persistent urge to buy something, (b) is unplanned, and (c) involves the purchase of products that are not staples, which Boone and Kurtz (1999) refer to as the convenient products that people use daily and stock for the future usage, such as bread and milk. In the context of this study, impulse buying is operationalized based on Beatty and Ferrell’s (1998) definition, which is perceived to be more complete than others because (a) it describes the nature of impulse buying, (b) it delineates the process of impulse buying, and (c) it specifies the characteristics of product purchased impulsively.

Factors Affecting Impulse Buying Behavior

Rook and Hoch (1985) and Rook (1987) introduced the personal trait of buying impulsively. Their research supported previous findings of Horton (1979), which revealed that a relationship existed between the impulsiveness personality characteristics and consumer behavior patterns. Horton (1979) found that impulsive subjects preferred highly identified and highly priced products more so than subjects did with traits in the contrary. Thus, the premise of impulse buying trait or tendency indicated that some people have a greater likelihood of making an impulse purchase more so than others. Further support of this contention was offered by Rook and Fisher’s (1995) and Beatty and Ferrell’s (1998) research, which revealed a significant relationship between impulse buying tendency and actual impulse buying behavior. In contrast to the notion of a preconceived tendency to engage in impulse purchases, Shapiro (1973) indicated that there are not any spe-
pecific items that are likely to be purchased more impulsively than others are because impulse buying behavior may be influenced by a host of intervening variables. Related to Shapiro's (1973) contention, Puri (1996, p. 88) suggested "an impulsive trait and impulsive behavior is moderated by consumer's normative evaluations about the appropriateness of the behavior." Moreover, Puri (1996) revealed that the impulse buying tendency and actual purchasing behavior are different constructs, such that the tendency for buying impulsively does not necessarily lead a person to actual impulse buying. Offering support for Shapiro (1973) and Puri (1996) was research by Iyer, (1989), Beatty and Smith (1987), Jeon (1990), and Beatty and Ferrell (1998), which suggested that even though an individual's personality trait may strongly influence his or her tendency to engage in impulse buying behavior, a myriad of other factors are likely to interfere with the completion/fulfillment of one's impulse buying behavior intentions.

Notwithstanding the influence that a tendency to engage in impulse buying is likely to have on impulse purchases, research (i.e., Boone & Kurtz, 1999; Hoch, 1985; Roos, 1987; Puri, 1996; Stern, 1962) has revealed the multiplicity of the impulse buying phenomenon. Consequently, it is apparent that examinations of impulse buying behavior in shopping situations consider (a) characteristics of the product being purchased, (b) characteristics of the consumers, and (c) situational factors surrounding the purchase context.

**Product Characteristics**

Boone and Kurtz (1999) explain that products can be categorized into four different product categories: specialty products (luxury cars, designer clothing, etc.), unsought products (life insurance, cemetery plots, etc.), convenient products (impulsive items, staples, and emergency items), and shopping products (VCRs, portable fans, physical fitness training, expensive luggage, etc.). According to Boone and Kurtz (1999, p. 374), impulse items include "product that are purchased on the spur of the moment, such as tattoos, or out of habit, such as cigarettes." Among the various product categories presented by Boone and Kurtz (1999), shopping products fit the characteristics of impulsive products.

In the context of this study, impulse buying is operationalized based on Beatty and Ferrell's (1998) definition, which is perceived to be more complete than others because (a) it describes the nature of impulse buying, (b) it delineates the process of impulse buying, and (c) it specifies the characteristics of product purchased impulsively... Consequently, it is apparent that examinations of impulse buying behavior in shopping situations consider (a) characteristics of the product being purchased, (b) characteristics of the consumers, and (c) situational factors surrounding the purchase context.

Stern (1962) suggested that nine factors affect impulse buying behavior: (a) low price, (b) marginal need for item, (c) mass distribution, (d) self-service, (e) mass advertising, (f) prominent store display, (g) short product life, (h) small size or light weight, and (e) ease of storage. According to Rook and Hoch (1985), cheap and frequently purchased products that need little cognitive effort are considered impulsive products. There has been some debate over whether or not a staple item is an impulsive product. As mentioned previously, staples are the necessary products that people use daily and stock for the future usage (such as bread and milk). According to Kollat and Willet (1967), staples are less likely to be purchased on unplanned bases in comparison to non-staples, such as vitamins, candybars, and desserts (which are more frequently purchased on an unplanned basis).

Licensed sport merchandise has most of the characteristics of products that are frequently purchased impulsively. Sport team licensed merchandise (e.g., fleecewear top, t-shirt, cap etc. with sport team logos) usually small in size, easy to carry, light in weight, and easy to store. Sport team licensed merchandise is a shopping good, rather than a staple, and it is not an emergency item. Therefore (regarding product characteristics), it may be concluded that sport team licensed merchandise satisfies the conditions to be considered an impulse product.

**Consumer Characteristics**

In addition to recognizing the influence of product characteristics on the tendency of consumers to purchase such items impulsively, there is also a need to recognize the myriad of factors that personally affect consumers in their consumption decisions. As mentioned previously, consumers may have a personal tendency to or trait to engage in impulse buying. Not discounting the influence of the individual's personality, investigating personality was beyond the scope of this study. Instead, the focus of this study was on the manner in which individual variables, such as consumers' general level of shopping enjoyment and the degree to which consumers identified with the product to be purchased, influence consumers' impulse purchase behaviors.

**Shopping Enjoyment.** Beatty and Ferrell (1998) incorporated shopping enjoyment as a precursor of impulse buying behavior. They defined shopping enjoyment as "pleasure one obtains in the shopping process" (Beatty & Ferrell,
1998, p. 174). They further contended that shopping enjoyment is an affective state that may influence impulse buying tendency (IBT). Some people enjoy shopping more than others, and due to their positive affinity to shop, there is a greater likelihood that these types of consumers will have increased intentions, opportunities, and actual engagements in impulse buying. Therefore, shopping enjoyment may be an individual difference variable that influences a person's impulse buying behavior. As such, it is likely that sport consumers' impulse buying behavior of sport merchandise is influenced by their general enjoyment for shopping.

**Hypothesis 1:** The higher the consumer's level of shopping enjoyment, the greater the likelihood of the consumer making an impulse purchase of sport team licensed merchandise.

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**Identity with the Product.** Identification is one of the basic psychological orientations that determine the behaviors of human being. Mael and Ashforth (1992) indicated that identification refers to self in terms of social classifications (i.e., I am . . .). Sport team identification has been one of the major psychological orientations with which sport scholars and marketers explain and predict sport consumers' behaviors in various situations. Sport team identification has been linked to various behaviors and phenomena that can be observed in sport settings, such as bask in reflected glory (BIRG) (Cialdini et al., 1976) in which sport consumers seek to enhance their self-esteem by displaying a relationship between a successful sport team and themselves. Research has revealed that team identification exerted an influence on attendance rate in spectating sports (Sutton, McDonald, Milne, Cimperman, 1997), ticket price elasticity (Sutton et al., 1997), the wearing of sport paraphernalia and apparel (Cialdini et al., 1976), and sport consumers' sensitivity to performance outcomes (Sutton et al., 1997).

In the past, most goods were purchased to satisfy the functional needs of consumers. For example, most of the staples were purchased to satisfy consumers' physiological needs that are categorized as the most basic need in Maslow's (1943) hierarchy of needs. The five hierarchical needs are ordered (from the lowest to highest) as physiological needs, safety needs, belonging, and consumption behavior for licensed sport merchandise may create and fortify the sense of belongingness of an individual to the respective sport/team with which the individual wants to be associated and thinks to be salient to their identity. Once any one of the product attributes describes or portrays an individual as he/she wants, the individual may satisfy the need of self-identity by purchasing and consuming the product. Thus, the symbolic meanings of sport products (which may be associated with their price, shape, style, brand image, etc.) may reflect a salient aspect of the consumers' social identity.

Puri (1996) stated that impulse buying occurs when a consumer thinks that the benefits of impulsive behavior are more salient than the costs. The benefits can be hedonic benefits and image-oriented benefits. Hedonic goods are characterized by affective and sensory experience of aesthetic or sensual pleasure, fantasy, and fun. Sport team licensed merchandise containing a sport team's logo or brand marker that expresses a salient component of the consumer's attitude and/or social identity may be regarded as the image-oriented benefit. Therefore, it is also likely that licensed sport merchandise may be impulsively purchased when a consumer perceives that both the hedonic and the image-oriented benefits they receive are more salient than the cost of the sport team licensed merchandise. As such, sport consumers' impulse buying of sport merchandise may be influenced by the symbolic nature of the product as determined by the level with which the consumer identifies the team the product represents.

Dittmar et al. (1995) explained impulse buying with social constructionist theory and investigated whether males and females purchased different category of products impulsively. They concluded that self-identity influences people's impulse buying behavior if the products are related to their particular self-identity. The study revealed
that men tended to impulsively buy instrumental and leisure items, while women tended to buy symbolic and self-expressive goods concerned with appearance and emotional aspects of self. This current study seeks to further explore Ditmar et al.'s (1995) findings on gender and impulse buying by examining whether level of identification with a specific sport team influences the impulse buying behavior of males and females differently regarding the impulsive purchase of sport team licensed merchandise.

Hypothesis 2: The higher the level of identification the consumer has with the respective sport team, the greater the likelihood of the consumer making an impulse purchase of the team's merchandise.

Situational Factors

Time Availability. As previously implied, a number of situations may influence sport consumers’ impulse buying tendencies. Among such factors is time availability. The relationship between time pressure and unplanned purchase was demonstrated by Iyer (1989). He hypothesized that the amount of unplanned purchases was a function of time pressure; the lower the time pressure, the higher the amount of unplanned purchases. His results indicated that there was a significant difference between the unplanned purchases in the time-pressure-absent and time-pressure-present conditions. Time availability was also one of the situational variables incorporated in Beatty and Ferrell's (1998) study. It was revealed that time availability was a significant factor that led to actual impulse buying.

Hypothesis 3: The more time available to sport consumers in shopping situations, the greater the likelihood of the consumer making an impulse purchase of sport team licensed merchandise.

Availability of Financial Resources. Another situational variable that may exert an influence on sport consumers’ impulse buying is the availability of financial resources. The importance of the availability of financial resources has been emphasized in several studies (Beatty & Ferrell, 1998; Jeon, 1990). Jeon (1990) did not hypothesize a direct relationship between extra money and impulse purchasing; however, Beatty and Ferrell (1998) hypothesized a direct relationship based on the premise that the availability of money would produce positive feelings and, consequently, would positively influence actual impulse purchase.

Financial availability (in comparison to time availability) may particularly be a determinant of impulse buying for consumers who are college students and who are generally thought to have less discretionary income compared to that of the general population. It is likely then to expect college students’ impulse purchase of their university’s sport teams licensed merchandise to be influenced by the financial resources at their disposal.

Hypothesis 4: The more money available to sport consumers in shopping situations, the greater the likelihood of the consumers making an impulse purchase of sport team licensed merchandise.

Methodology

Research Design

Sport team licensed merchandise was deemed a product that was likely to be purchased impulsively based on the descriptions provided in previous research (i.e., Boon & Kurtz, 1999; Rook & Hoch, 1985; and Stern, 1962). As such, product characteristics were not examined in this study. Instead, this study focused on consumer characteristics (i.e., shopping enjoyment and sport team identification, which measured consumers’ identification with the product to be purchased) and situational factors (i.e., money availability and time availability during the shopping encounter). The dependent variables in this study were impulse buying behavior and the actual dollar amount spent on sport team licensed merchandise. The independent variables in this study were shopping enjoyment, sport team identification, time availability, and money availability.

Sample

Since the topic of this research involved purchasing behavior and sport, subjects were drawn from related disciplines (sport/physical education and textile classes). One hundred forty-five students (48 male and 97 female) at a large mid-western university participated in the study. Among the 145 students, 82.8% were white, and 10 subjects were African-American. The average number of years the participants were enrolled in the university was 2.39, with approximately 41% of the subjects having been enrolled for more than 2 years.

Procedure and Instrumentation

A questionnaire containing a cover letter (which explained the purpose of the study, the expected amount of time to complete the questionnaire, and the confidentiality of the responses) was developed.
and administered to students in the respective classes. The questionnaire consisted of six parts and contained 29 items with a corresponding 7-point Likert scale (a "1" indicated strong disagreement, and a "7" indicated strong agreement) to ascertain the students' level of agreement with the statements presented. See Appendix A for a sample of the questions included in the questionnaire. Some of the items contained in the questionnaire were extracted and modified based on Beatty and Ferrell (1998).

Regarding the independent variables, the questionnaire contained four items to ascertain shopping enjoyment, three items to ascertain time availability, three items to ascertain money availability, and 10-items to ascertain sport team identification. The sport team identification items were adapted from Mael and Ashforth's (1992) organizational identification scale and contained items that referred to the degree to which the respective university's sport teams comprised a salient component of the participants' self- and social identity.

Regarding the dependent variables in this study, the questionnaire ascertained impulse buying behavior with three items, and the actual dollar amount spent was obtained by having participants report the approximate dollar amount of their expenditure on the university's sport team's merchandise per year. Lastly, demographic items were also included in the questionnaire to ascertain the students' gender, ethnicity, and years of studying at the university.

The initial questionnaire was field tested by students in a research class at the respective university. The students were asked to complete the questionnaire and comment on the ease or difficulty in the wording of the items. From the data collected in the field test, reliability values for Cronbach's alpha were computed with SPSS 10, with slight modifications made for better wording as recommended from the respondents of the field test. To administer the final (revised) instrument for data collection for this study, students were asked to complete the questionnaire if they were willing to participate in a study on the purchase behaviors of sport team licensed merchandise for the university's sport teams. The questionnaires were administered and distributed in a group format, and the process took approximately 10 minutes.

The dependent variables in this study were impulse buying behavior and the actual dollar amount spent on sport team licensed merchandise. The independent variables in this study were shopping enjoyment, sport team identification, time availability, and money availability.

### Analysis of the Data
Cronbach's alpha coefficients were computed to determine the internal consistency of the subscales. A exploratory factor analysis was used to examine the underlying dimensions of sport team identification. Once validity and reliability were established, composite mean scores on the subscales were calculated. The mean scores and standard deviations were calculated with SPSS 10 on all the sub-scales of shopping enjoyment, time availability, money availability, and sport team identification. Stepwise multiple regression analysis was used to capture the significant factors influencing impulse buying behavior on sport team licensed merchandise.

### Assumptions of Regression Analyses
The desired sample size recommended for this analysis was 15 to 20 for one independent variable (Hair et al., 1998). Thus, a sample size of 80 was recommended, yet data from 144 subjects were available for this analysis. The normality of the data is necessitated since multiple regression analysis is used to verify which independent variables (shopping enjoyment, time availability, money availability, and sport team identification) have significant relationships with the dependent variable (impulse buying of sport team licensed merchandise). To check the normality of the data, skewness and kurtosis were computed with SPSS 10. The results indicated that all five variables did not break the assumption of univariate normality (Hair,
Table 1
Descriptive Statistics for Variables.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shopping Enjoyment</td>
<td>4.88</td>
<td>1.47</td>
<td>-0.387</td>
<td>0.492</td>
</tr>
<tr>
<td>Time Availability</td>
<td>3.74</td>
<td>1.30</td>
<td>0.341</td>
<td>-0.205</td>
</tr>
<tr>
<td>Money Availability</td>
<td>3.86</td>
<td>1.45</td>
<td>-0.138</td>
<td>-0.596</td>
</tr>
<tr>
<td>Sport Team Identification</td>
<td>3.95</td>
<td>1.49</td>
<td>-0.112</td>
<td>-0.842</td>
</tr>
<tr>
<td>Impulse Buying</td>
<td>3.02</td>
<td>1.68</td>
<td>0.407</td>
<td>-0.851</td>
</tr>
</tbody>
</table>

Anderson, Tatham, & Black, 1998)
In addition to normality of data, three different values that measure the level of collinearity between independent variables were obtained from SPSS 10. Durbin-Watson value (1.93, 1.845), tolerance (1.0, 1.0), and variance inflation factor (1.0, 1.0), were computed respectively for each of the two multiple regression analyses with SPSS 10. For the first multiple regression analysis, the influence of four independent variables (time availability, availability of financial resources, shopping enjoyment, and sport team identification) on impulse buying behavior was

Table 2
Component Matrix of Sport Team Identification Items.

<table>
<thead>
<tr>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification 1</td>
</tr>
<tr>
<td>Identification 2</td>
</tr>
<tr>
<td>Identification 3</td>
</tr>
<tr>
<td>Identification 4</td>
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<tr>
<td>Identification 5</td>
</tr>
<tr>
<td>Identification 6</td>
</tr>
<tr>
<td>Identification 7</td>
</tr>
<tr>
<td>Identification 8</td>
</tr>
<tr>
<td>Identification 9</td>
</tr>
<tr>
<td>Identification 10</td>
</tr>
</tbody>
</table>

Extraction Method:
Principal Component Analysis.

Table 3
Descriptive Statistics for Sport Team Identification by Gender.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>48</td>
<td>4.4500</td>
<td>1.3565</td>
</tr>
<tr>
<td>Female</td>
<td>97</td>
<td>3.7021</td>
<td>1.5025</td>
</tr>
<tr>
<td>Total</td>
<td>145</td>
<td>3.9497</td>
<td>1.4934</td>
</tr>
</tbody>
</table>

Table 4
Gender Differences on Sport Team Identification.

<table>
<thead>
<tr>
<th></th>
<th>SS</th>
<th>MS</th>
<th>F-value</th>
<th>prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>17.963</td>
<td>17.963</td>
<td>8.472</td>
<td>.004*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>303.200</td>
<td>2.120</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>321.162</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p<.05

Table 5
Correlation Matrix for Independent and Dependent Variables.

<table>
<thead>
<tr>
<th></th>
<th>Impulse Buying</th>
<th>Shopping Enjoyment</th>
<th>Time Availability</th>
<th>Money Availability</th>
<th>Team Identification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impulse Buying</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping Enjoyment</td>
<td></td>
<td>0.114</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time Availability</td>
<td></td>
<td></td>
<td>0.141</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Money Availability</td>
<td></td>
<td></td>
<td></td>
<td>0.313</td>
<td>1.00</td>
</tr>
<tr>
<td>Sport Team Identification</td>
<td></td>
<td>0.437*</td>
<td>0.109</td>
<td>0.120</td>
<td>0.311</td>
</tr>
</tbody>
</table>

*p<.05
analyzed. For the second multiple regression analysis, the influence of the four independent variables on dollar amount spent on sport team licensed merchandise was analyzed.

Results
The results section provides the reliability of the sub-scales and descriptive statistics for each factor. It presents (a) the results of the confirmatory factor analysis used to examine the underlying structure in data matrix of the 10 items of sport team identification, (b) the inferential statistics on the four hypotheses made based on previous studies to examine which factors influenced impulse buying of sport team licensed merchandise, (c) the correlation between the level of sport team identification and dollar amount spent on the university's sport team's merchandise, and (d) the differences that exist in the levels of sport team identification between males and females.

Subscale Reliability
To evaluate the internal consistency of the predictor variables, Cronbach's alpha coefficients were calculated: shopping enjoyment ($\alpha = .89$), time availability ($\alpha = .83$), money availability ($\alpha = .79$), team identification ($\alpha = .94$), and impulse buying behavior ($\alpha = .90$). None of the variables had reliability concerns based on Nunnally's (1978) and Nunnally and Bernstein's (1994) recommendation that Cronbach's alpha of .70 and higher represents sound reliability.

Descriptive Statistics
Based on the high reliability values, composite means of five subscales were calculated. Descriptive statistics for each sub-scale are presented in Table 1.

Principal Component Analysis of Sport Team Identification
Principal component analysis was employed to examine the underlying structure in the data matrix of the 10 items on sport team identification. All the 10 items loaded on one factor (see Table 2). No rotation was used. Descriptive statistics for sport team identification by gender is presented in Table 3.

To determine whether there were any gender differences in sport team identification, one-way ANOVA was employed. The hypothesis of no difference between the mean of male and female was rejected at alpha = .05 (see Table 4). Statistically, males scored higher than females on the consumer identification scale.

Cronbach's alpha coefficients were computed to determine the internal consistency of the subscales. An exploratory factor analysis was used to examine the underlying dimensions of sport team identification. Once validity and reliability were established, composite mean scores on the sub-scales were calculated. The mean scores and standard deviations were calculated with SPSS 10 on all the sub-scales of shopping enjoyment, time availability, money availability, and sport team identification. Stepwise multiple regression analysis was used to capture the significant factors influencing impulse buying behavior on sport team licensed merchandise.

Multiple Regression Analyses
The concept of correlation is fundamental to regression analysis by describing the relationship between two variables. To examine the relationship between the independent and dependent variables in this study, Pearson product-moment coefficients were calculated (see Table 5 for the results).

The results revealed that two significant relationships were found between money availability and impulse buying ($r = .17, p < .05$) and between sport team identification and impulse buying ($r = .44, p < .05$). These results indicated that there was some association between the independent variables and the dependent variables, yet not between the independent variables themselves. Thus, collinearity was not significant. Based on the results of correlation analysis, the stepwise multiple regression analysis was used to determine the relationship between the four independent variables (shopping enjoyment, time availability, money availability, and sport team identification) and one dependent variable (impulse buying of sport team licensed merchandise).

A significant positive relationship between sport team identification and impulse buying was found. $F(1, 143) = 33.698, p < .001$ (see Table 6). The standardized coefficient of beta was .437 ($p < .001$), indicating a positive relationship between sport team identification and impulse buying.
team identification) and the dependent variable of dollar amount spent on sport team licensed merchandise, stepwise multiple regression analysis was employed. Three respondents did not answer this question and were disregarded because they only comprised a negligible portion of the total sample. A significant positive relationship between sport team identification and dollar amount spent on sport team licensed merchandise was again found. \[ F(1, 140) = 39.342, p < .001 \] (see Table 7). The standardized coefficient of beta was .468 \((p < .001)\), indicating that a positive relationship existed between sport team identification and dollar amount spent on sport team licensed merchandise. The \(R^2\) was .219, implying that sport team identification explained approximately 22\% of the total variance of dollar amount spent on sport team licensed merchandise.

**Gender Difference in Impulse Buying of Sport Team Licensed Merchandise**

The mean score on the items ascertaining their impulsive buying of sport team licensed merchandise was 3.17 (std. deviation = 1.63) for males and 2.95 (std. deviation = 1.71) for females. To determine whether there were any statistical differences in impulse buying by gender, a one-way ANOVA was performed. The hypothesis of no difference between the mean of male and female was not rejected at alpha = .05 (see Table 8). The results indicated that the mean scores for males and females on impulse buying of sport team licensed merchandise were not statistically significantly different.

Regarding the dollar amount spent on sport team licensed merchandise, the males indicated that they spent $69.47 and female reportedly spent $58.39 per year. One-way ANOVA was also used to determine whether the dollar amounts spent by males and females on sport team licensed merchandise were statistically significantly different. The hypothesis of no difference between the mean of male and female was not rejected at alpha = .05 (see Table 9). Therefore, the mean differences between the amount of money spent per year by males and females on the university’s sport teams’ merchandise were not statistically significant.

**Discussion**

Based on previous studies on impulse buying, the researchers established four hypotheses regarding impulse purchase of sport team licensed merchandise. The hypotheses incorporated in the study were such that the students’ level of shopping enjoyment, their level of iden-

### Table 6
**Results of Stepwise Multiple Regression Analysis.**

<table>
<thead>
<tr>
<th>Model</th>
<th>SS</th>
<th>MS</th>
<th>F-value</th>
<th>prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>77.71</td>
<td>77.71</td>
<td>33.698</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>329.77</td>
<td>2.31</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>407.48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(R^2 = .191, \ast p < .001\)

**Coefficients**

*Independent Variables*  
  - \(\beta\)  
  - \(B\)  
  - \(t\)-value  
  - prob.

| Sport Team | .437 | .498 | 5.80 | .000* |
| Identification | .067 | .884 | .378 |
| Shopping Enjoymen | .090 | 1.193 | .235 |
| Time Availability | .037 | .460 | .646 |
| Money Availability |       |       |       |

Dependent Variable: Impulse Buying Behavior  
\(\beta\)= Standardized regression coefficient;  
\(B\)= Unstandardized regression coefficient.  
\(*p < .001\)

### Table 7
**Results of Stepwise Multiple Regression Analysis.**

<table>
<thead>
<tr>
<th>Model</th>
<th>SS</th>
<th>MS</th>
<th>F-value</th>
<th>prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>130657.82</td>
<td>130657.82</td>
<td>39.342</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
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<td>3321.11</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(R^2 = .219, \ast p < .001\)

**Coefficients**

*Independent Variables*  
  - \(\beta\)  
  - \(B\)  
  - \(t\)-value  
  - prob.

| Sport Team | .468 | 20.441 | 6.272 | .000* |
| Identification | .103 | 1.380 | .170 |
| Shopping Enjoymen | .060 | .793 | .429 |
| Time Availability | .051 | .645 | .520 |
| Money Availability |       |       |       |

Dependent Variable: Impulse Buying Behavior  
\(\beta\)= Standardized regression coefficient;  
\(B\)= Unstandardized regression coefficient.  
\(*p < .001\)
tification with the university's sport team, their time availability, and their money availability would have positive influences on their likelihood of engaging in impulsive purchases of sport team licensed merchandise. The results, however, indicated that among the four antecedents for impulse buying, only sport team identification was a significant determinant of college students' impulse buying tendency for merchandise featuring the logos or brand markers of the university's sport teams. Although previous studies have identified various factors that influence impulse buying behavior of consumers, only sport team identification was found to be a significant determinant of impulsive sport related purchases in this study. Previous studies on impulse buying have also not limited the locus of lines of products, and instead assumed that general factors will work similarly for all products. This study illustrated that different factors may influence the impulsive purchase of various products differently. More specifically, this study revealed that sport in particular may be a different, and yet a symbolic, product with characteristics that promote consumer identification, thereby influencing consumers' purchase intentions and patterns in a manner that will differ in comparison to that witnessed for other "general" products.

The level at which the respondents' identification with the university's sport team influenced impulse buying of the team's licensed sport merchandise offered support for Dittrar et al.'s (1995) contention concerning the influence of self-identity on purchase patterns. The results of this study reiterated the importance of promoting identification among students with their university's sport teams, as it revealed that the more students identify with a university and its sport teams, the greater the likelihood of them purchasing sport team licensed merchandise impulsively, and the greater the amount of money spent on such purchases.

Even though the stepwise multiple regression analysis captured only sport team identification as a significant factor, the analysis of correlation between each of the four independent variables and the dependent variables revealed that money availability was also a significant factor in impulse purchasing of sport team licensed merchandise. This finding was not surprising based on the limited discretionary income college students are generally thought to have. Notwithstanding the lack of available financial resources among college students, the results of this study revealed that money availability was the second most important factor among the four posited to influence college students' impulsive purchase of sport team licensed merchandise. One possible explanation for this finding is that, perhaps, the price of the sport team licensed merchandise was not considered as important as the benefits of having the product that represented the university's sport teams. As Puri (1996) indicated, teenagers have more hedonic values, which may tend to amplify the image-associated benefits they derive from certain purchases. Thus, in a related manner for college students, the symbolic function of the sport team licensed merchandise (in relation to their level of identification with the team) may have outweighed the financial cost of the actual purchase transaction. As such, the students (with limited financial resources available) may have made the necessary sacrifices.

The hypotheses incorporated in the study were such that the students' level of shopping enjoyment, their level of identification with the university's sport team, their time availability, and their money availability would have positive influences on their likelihood of engaging in impulsive purchases of sport team licensed merchandise. The results, however, indicated that among the four antecedents for impulse buying, only sport team identification was a significant determinant of college students' impulse buying tendency for merchandise featuring the logos or brand markers of the university's sport teams.

| Table 8 | Gender Difference in Impulse Buying of Sport Team Licensed Merchandise. |
|---------|-----------------------------|-------------|----------|-----------------------------|
|         | SS             | MS          | F-value  | Prob.                      |
| Between Groups | 1.628         | 1.628       | .574     | .450                       |
| Within Groups   | 405.851       | 2.838       |          |                            |
| Total            | 407.479       |             |          |                            |

| Table 9 | Gender Difference in Dollar Amount Spent on Sport Team Licensed Merchandise. |
|---------|-----------------------------|-------------|----------|-----------------------------|
|         | SS            | MS          | F-value  | Prob.                      |
| Between Groups | 3859.258     | 3859.258   | .913     | .341                       |
| Within Groups   | 591754.292  | 4226.816   |          |                            |
| Total            | 595613.549   |             |          |                            |
to purchase their university's sport team merchandise.

Dittmar et al. (1995) revealed gender differences among men and women regarding their impulse buying tendencies. The differences were attributed to the notion that men and women have different self-identities (i.e., that of being male or female). Regarding gender differences and identification in a sport context, Armstrong (in press) revealed differences in the manner in which male and female sport spectators experienced self- and product-image congruency with a consumer identification with their sport teams, actionable marketing strategies may be designed to increase identification, thereby increasing the likelihood of impulsive sport purchases. Also, according to the results of this study, situational factors that consumers may contend with, such as time and resource availability (which are largely beyond the control of sport marketers), exerted minimal influence on impulse purchase behaviors. Given that financial availability did not significantly influence the students' impulsive purchases of

Sport marketers are continuously trying to find ways of manipulating or modifying factors within their control to facilitate the marketing exchange with consumers. The results of this study offer valuable insight into that challenge. For example, this study indicated that students' impulse buying for sport team licensed merchandise and the level of identification they had with the university's sport teams, rather than other situational factors, significantly influenced the amount of money spent on impulse sport purchases.

Notwithstanding the value of the contributions of this study, there were also some limitations that should be addressed. First, this study did not incorporate all of the determinants of impulse buying identified in previous studies. Among those not included in this study due to the logistics and hypothetical scenario relevant to this investigation that should be addressed in future research are in-store display and in-store browsing time. Secondly, constructs, such as consumers' loyalty, psychological commitment, and behavioral com-

sport and a respective sport team. Such gender differences were not revealed in this current study. Instead, the results of this study revealed that sport team identification appears to be gender neutral in that males and females may equally establish levels of identification with a university's sport teams in a manner that is congruent with salient aspects of their self- and/or social identities.

The marketing implications of this study are noteworthy. Sport marketers are continuously trying to find ways of manipulating or modifying factors within their control to facilitate the marketing exchange with consumers. The results of this study offer valuable insight into that challenge. For example, this study indicated that students' impulse buying for sport team licensed merchandise and the level of identification they had with the university's sport teams, rather than other situational factors, significantly influenced the amount of money spent on impulse sport purchases. Since research (i.e., Sutton et al., 1997) has identified a number of strategies that marketers may employ to foster sport team licensed merchandise, sport marketers on this respective campus may institute sport price promotions/increases to the extent that they do not sup ercede (the cost of) consumers' psychological attachment to the sport team. Thus, sport marketers may attempt to increase profits by changing price in accordance with the change in the level at which consumers identify with the product. This strategy would be difficult to impart in campus settings in which consumers exhibit weak or unstable levels of identification with their respective university's sport teams (i.e., pending team's performance record) but would seem particularly effective for marketing sport merchandise on campuses where consumers exhibit a rather stable and fairly high level of identification with their university's sport teams. In addition to the practical implications its findings, this study has also made theoretical contributions regarding the dynamics of sport consumer behavior and reiterated the premise of the social identity theory and its potential impact on the thoughts and behaviors of sport consumers.
standing of the long-term profitability of impulse buying, future studies should also ascertain consumers' level of satisfaction or dissatisfaction (i.e., level of regret) regarding their impulsive sport purchasing behavior.

References
APPENDIX A: Questionnaire Items

Shopping Enjoyment Items:
1. Shopping is a way I like to spend any leisure time.
2. Shopping is not a waste of time.
3. Shopping is entertaining.
4. Shopping is one of my favorite activities.

Time Availability Items:
1. Usually, I have limited time available for shopping trips.
2. I am not usually rushed for time while shopping.
3. The amount of time pressure I feel when shopping could be high.

Money Availability Items:

Often when I am shopping:
1. I can afford to make any unplanned purchases.
2. I am on a tight budget for shopping.
3. I have enough extra money so that I can spend a little lavishly if I find something I really like.

Impulse Buying Items:
1. When I go into stores like [the campus bookstore], I buy [the university's sport teams'] merchandise that I had not intended to purchase.
2. I am a person who makes unplanned purchases on [the university's sport teams'] merchandise.
3. It is fun to buy [the university's sport teams' merchandise] spontaneously.

Sport Team Identification Items:
1. [The university's sports team's] successes are my successes.
2. When someone praises [the university's sports teams] it feels like a personal compliment.
3. When someone criticizes [the university's sports teams] it feels like a personal insult.
4. [The university's sports teams'] failures are my failures.
5. I am very interested in what others think about [the university's sports teams].
6. When I talk about [the university's sports teams], I usually say "we" rather than "they."
7. I act like a [university sport teams] fan to a great extent.
8. I am proud to tell others that I am a part of [the university's sports teams].
9. I tell my friends that [the university] is a great institution in which to study.
10. I feel a sense of "ownership" for [the university's sports teams] rather than being just a student.