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A path analysis of apparel brand equity in the context of utilitarian and hedonic buying behaviors among male and female college students

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Abstract

The internet is flooded with research on the influence of brand equity on consumer buying behavior. This paper offers a reversal of the variables wherein brand equity becomes the dependent variable and consumer buying behaviors (utilitarian and hedonic), along with sex, as the independent variables. Employing path analysis, the study delves into the dominant buying behavior of 300 graduating college male and female university students in Region XI. They are the prospective consumers of apparel products once employed in the immediate future. The study highlights the interconnectedness of utilitarian and hedonic buying behaviors in shaping the brand equity of apparel goods. Sex, on the other hand, is not a significant predictor of consumer buying behavior and brand equity.

Keywords: Brand equity; Utilitarian buying behavior; Hedonic buying behavior; Path analysis

1. Introduction

In the apparel industry which includes clothing, footwear, bags, and accessories, among others; brand owners realize that it is hard to survive alongside fierce industry competition. Nowadays, the apparel industries keep on changing faster than ever. The retail sector is becoming more intensive, and global retailers are becoming more powerful through mergers and acquisitions [1]. To succeed in the highly competitive market, understanding every aspect of the apparel business is of utmost importance. Brand equity is one of the most important items to be dealt with. It signifies the valuation of a brand, the value added to a product making it preferable over others. As advanced by Davcik et al. [2] the more reputable the brand, the more brand equity it has. Apparel companies can build brand equity for their goods by making them remarkable, easily identifiable, and excellent in quality, however, they experience numerous challenges [3] forcing them to adopt robust marketing strategies to get ahead of the competition. Feeling the pulse of prospective consumers agilely is one of the ablest schemes for the purpose. But who are these prospective consumers? Graduating college students are the best target who will be earning when they start working. Targeting them while still in school may result in obtaining their brand allegiance. Businesses have to be certain that their brand [4], [5] is attractive (hedonic value) to students who are known for needing material gain or a good discount (utilitarian value) that will lead to brand equity.

A problem now arises, are college students generally utilitarian or hedonic? Which group is inclined to brand equity? Is sex a determining factor in brand equity among college students? What model could be crafted from the results of the study that may be of help to the apparel industry as regards brand equity? To provide a plausible background of the variables under study, there is a need therefore to spell out the particulars surrounding their overtones in this study. Other researchers have explored solutions to improve brand equity, however, research examining the relationship between the hedonic and utilitarian behavior that influence the brand equity of apparel remains scarce. Using consumer behavior theory [6] we have developed a model that captures both utilitarian and hedonic consumer buying behaviors

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that lead to brand equity. It is the study of how students make decisions when they purchase, helping businesses and marketers to understand more about their target audience and so be able to craft products and services that will foster brand equity in the apparel industry.

1.1. Brand Equity

Brand equity puts forward a competitive advantage to firms, usually in the apparel industry which keeps on revolutionizing methodically [7] In the recent past, rapid fashion branding has drawn perceptible attention. Since brand equity elements can impact consumers' perceptions and behaviors, firms in the fast fashion market want to understand the role of these elements in designing and implementing sustainable brand strategies. According to Khan [8] the construct and clarity of brand equity are continuously argued. But what is certain is that customer-based brand equity [9] has a positive effect on a company's competitive strategy and helps the company stand out in the market. A study in Pakistan [10] underscored the importance of brand equity in gaining positive customer responses. The said importance is highlighted in one study [11] in the USA which emphasized that people are more likely to buy or use products from a company if that company has stronger brand equity. In the Philippine setting, it was declared in a study [12] that customer-based brand equity is greatly associated with consumer behavior in the context of shopping satisfaction. It was recommended in that study that companies need to strengthen brand equity as this is an important strategy for advancing their position in the market.

1.2. Hedonic vs Utilitarian Buying Behavior

Consumer buying behavior refers to the decisions and actions people undertake to buy products or services for personal and group use [13]. This study classifies utilitarian and hedonic buying behaviors of consumers (college students) in the apparel industry relative to brand equity operations. Hedonism refers to the joy, excitement, and nostalgia related to shopping. Utilitarianism refers to a reasonable, deliberate, and purposeful shopping behavior.

Apparel companies, work on more new products to satisfy their customers' needs however almost half of them fail [14], [15]. Constant failure is a red flag to its survival hence companies need to understand customers' willingness to purchase a new product. Understanding why customers want to buy a new product may be a wise move in improving the chances of being accepted. Queries like what should be the bulk of production in the apparel industry, hedonic or utilitarian value; and what group of buyers are likely to accept the product styles in the contemporary venue or in the immediate future. These concerns may be of help in increasing the chances of new product acceptance. Young adult consumers, like would-be graduates, have considerable awareness of brands [16] and are cognizant of their buying behaviors.

It is essential to know that utilitarian values and hedonic values are entrenched within an individual and often interact with one another to shape an individual's perception and behavior [17]. Therefore, once they are acting together, several combinations of interactions may crop up and result in various behaviors. Some authors hold both similar and different concepts as to the particulars of hedonic vs utilitarian buying behavior. Some authors [18], [19] emphasized that if shopping is done with benefits in mind, it is termed as utilitarian behavior inclined to be practical while hedonic behavior makes the shopping experience agreeable and pleasant. Another article [20] explains that hedonic behavior in shopping refers to recreational, fun, intrinsic, and stimulation-oriented motivation while in utilitarian behavior, the consumers buy according to the functional benefit of a product. A brief account of the two buying behaviors was made in one research [21] stating that hedonic is focused on emotional behavior while utilitarian is focused on logical behavior. Drawing on the above-mentioned authors, our point of view on the difference between the two buying behaviors could be expressed in two simple terms: hedonic as trendy and utilitarian as sensible.

Objective of the study

This study aims to determine the male and female college students' utilitarian and hedonic buying behavior as input to the path model on apparel brand equity. This will define the significance of the contribution of the buying behavior and sex of the study participants to brand equity in the apparel industry.

2. Research Methods

Formal permission was secured from the different universities involved in the study. This quantitative descriptive research employed a path analysis approach. According to Siedlecki [22], descriptive research design is a method that aims to describe and present the characteristics of a particular phenomenon or population without manipulating any variables. Further, according to Babbie [23] descriptive research design is a non-experimental method to describe a group's characteristics or phenomenon. Moreover, path analysis according to Hagger and Hamilton [24] is a statistical

technique that allows users to investigate effect patterns within a system of variables. It is a potent statistical tool that enables researchers to investigate the intricate interactions between numerous variables. This analysis examined the paths in the model to help understand the effect of the independent variables on the dependent variable. Analysis of the paths provided information about the fit of the model.

This study was conducted among 300 fourth-year college students in Davao City, Philippines after formal permission was secured from the heads of the tertiary schools involved in this study. Their participation was carried out through stratified proportionate random sampling. As stated by Lyons [25], a sampling size of 200 to 300 respondents is an acceptable range in social research. A researcher-made questionnaire was used as the instrument for the study validated by experts in the field and obtained a Cronbach alpha of .89 after it was pilot tested on a group of college students not involved in the study. Descriptive statistics, correlation, and structural equation modeling specifically path analysis were the statistical tools employed in this study. For the data analysis, the model's goodness of fit was assessed utilizing CMIN/DF, Goodness of Fit Index, Normed Fit Index, Tucker-Lewis Index, Comparative Fit Index, and Root Mean Square Error of Approximation.

3. Results and discussion

Through empirical tools, it was ascertained that the buying behavior of college students in Region XI is generally utilitarian ($M=4.05$) compared to their hedonic buying behavior ($M=3.65$). A significant difference in their buying behavior was noted ($t=9.21, p<.05$) in favor of utilitarianism over hedonism. The result is contrary to the findings of the study of Noh and Mosier [26] who indicated that young consumers are not interested in practical values when buying cool products. The contradiction could be attributed to the environment of the study. Our study is in the Philippine setting, a developing country, compared to their study conducted in the United States, a developed country. Another factor is that their study covered the self-image of the respondents which is not considered in our study.

This research also inquired into the role of sex in the buying behavior of the respondents. It was found that male college students ($M=4.03$) are more utilitarian than their female counterparts ($M=3.99$). However, the difference is minimal and it is not statistically significant ($t=0.15, p>.05$). The findings of the study by Kiki & Retno [27] are congruent with this study which concluded that there is no significant difference in the consumptive behavior of fashion products based on the gender of students. To determine the strength of the linear relationship between variables as baseline data for further analysis, correlation was carried out which revealed the following statistics: brand equity is positively correlated with utilitarian buying behavior ($r=.59, p<.05$); positively correlated with hedonic buying behavior ($r=.62, p<.05$); but not correlated with sex ($r=.08, p>.05$). To find out whether sex is not a necessary element in coming up with a model, regression analysis was utilized and the result of the analysis is reflected in Table 1.

Table 1 Regression Analysis on the Variables of the Study

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	0.328615	0.160666	2.045325	0.041316
Sex	-0.0343	0.052251	-0.65652	0.511775
Utilitarian	0.470875	0.044548	10.56994	7.97E-24
Hedonic	0.416301	0.034096	12.20977	2.19E-30

R square = 0.49; F = 174.68; $p < 0.05$

As shown in the table, R square as the coefficient of determination, is equal to .49 which is significant ($F=174.68, p<0.05$), depicting that sex is not significant but a necessary component in the regression analysis. It contributes to the context of this study that 49% of the variation in brand equity is due to the variation of utilitarian and hedonic buying behavior, and sex of the college students. It also indicates that the remaining 51% is due to the variation of some variables not covered in this study. With this result, a path analysis through a path model which is shown in Figure 1 is in order to assess the effects of utilitarian and hedonic buying behavior, and sex on brand equity via multiple causal pathways. This illustrates which of the possible relationships matter the most to brand equity and which has negligible effect.

The path model in Figure 1 displays the different paths to brand equity in conjunction with Table 2 covering the regression weights of each of the paths. The model shows that both utilitarian and hedonic behaviors have direct effects on brand equity. The direct effect of utilitarian behavior on brand equity is characterized by a coefficient of .47 and a p -

value less than 0.05. This means that a one-unit increase in utilitarian behavior is expected to increase brand equity by 0.47 units directly. It also suggests a positive direct relationship, meaning that as utilitarian behavior increases, brand equity tends to increase as well. Additionally, the direct impact of hedonic behavior posited a value of 0.42 significant @ $p < 0.05$. The result indicates that there is a statistically significant positive direct relationship between hedonic behavior and brand equity, that the former is associated with higher levels of the latter. These findings suggest that both utilitarian and hedonic behavior play important roles in shaping brand equity, a piece of valuable information for managers and salespeople in the apparel industry striving to improve their marketing and management practices. However, between the two buying behaviors, utilitarianism has a stronger direct relationship compared to hedonic as demonstrated in the model by their respective coefficients. This outcome supports the study of Cal and Adams [28] that utilitarian consumer behavior, compared to hedonic, has a higher contribution to the variance in brand equity.

In the path model, the curved arrow between utilitarian and hedonic behavior registered an r value of 0.25 ($p < 0.05$) indicating a positive correlation between utilitarian and hedonic behavior. This denotes that an individual possesses both utilitarian behavior and hedonic behavior [29], [30] although not in equal magnitude. This could be demonstrated when a buyer is very attracted to the modern features of a particular item but her budget is not enough so she ends up buying another brand that suits her budget. In other words, she has both hedonic and utilitarian motives. What is the implication for apparel business owners? In producing goods, therefore, extra effort has to be invested so that the goods may possess both utilitarian and hedonic values. The study results provide compelling empirical evidence that utilitarian and hedonic behaviors are inextricably linked drivers of brand equity, which is critical for long-term competitive advantage.

In this study, sex is not a contributory factor as manifested in the model, may it be a direct influencer of brand equity or a mediator of the two behaviors for brand equity. The unstandardized coefficient of 0.06 indicates the strength and direction of the relationship between utilitarian behavior and brand equity through sex. This value, however, is not significant, indicating that the effect of utilitarian behavior on brand equity is not mediated by sex. Likewise, the effect of hedonic behavior on brand equity is not also mediated by sex since the value of the coefficient of 0.02 is not significant ($p > 0.05$). In addition, the direct effect of sex on brand equity ($B = -0.07$) is not significant ($p > 0.05$). This implies that the buying behavior of the respondents is not affected by sex. However, sex is an important element in the process of making it an acceptable model of brand equity.

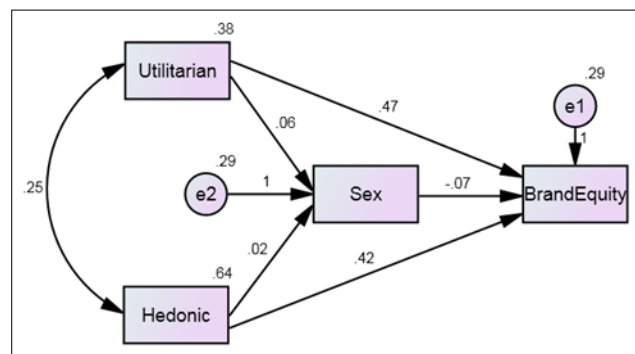


Figure 1 Path Model of Brand Equity

Table 2 Regression Weights of the Study Variables

			Estimate	S.E.	C.R.	P
Sex	<---	Utilitarian	0.056	0.044	1.269	0.204
Sex	<---	Hedonic	0.024	0.034	0.710	0.478
Brand Equity	<---	Utilitarian	0.472	0.044	10.672	***
Brand Equity	<---	Sex	-0.067	0.043	-1.559	0.119
Brand Equity	<---	Hedonic	0.417	0.034	12.292	***

3.1. Path Analysis Result

The path analysis report is depicted in Table 3. The report covers the entirety of the path model which is the preferred model (Figure 1) over other tested models. The analysis of other models was broken off since it yielded an unacceptable outcome when the fit indices for a path model were applied. Most of the indices came out below the standard range, and regrettably, an absence of CMIN df value and RMSEA, hence the preferred model in Figure 1 was chosen. Most of the indices for model fit like CFI (.99), NFI (.97), GFI (.96), and TLI (.99) exceeded the .90 threshold as the minimum value for these indices. However, it could not be considered the best model since the CMIN df (14) exceeded the ideal range (0 – 2). But at least the analysis generated a CMIN value. Another fit index that was not realized with this preferred model is the RMSEA (.40) which is more than the ideal index of less than 0.05. However, some authors [31], [32], [33] advised reporting the values as they are, as they indicate acceptable fit when seen in conjunction. The results indicate that the CFI and TLI provide nearly identical estimations and are the most accurate fit indices, followed at a step below by the RMSEA [34]. As presented in the table, four important indices far exceed the ceiling for best fit. Several models were tested that covered the identified variables but only the path model in Figure 1 generated an acceptable fit through the four identified incremental indices. Moreover, the null hypothesis that there is no significant path model for brand equity in the context of utilitarian and hedonic behaviors and sex, is rejected.

Table 3 Report on Path Analysis Results

Dependent Variable	Independent Variable	Unstandardized Coefficient	P
Indirect Effect on: Brand Equity thru Sex	Utilitarian	0.06	0.20
	Hedonic	0.02	0.48
Direct Effect on: Brand Equity	Utilitarian	0.47	0.00
	Hedonic	0.42	0.00
	Sex	-0.07	-1.56
Relationship between: Utilitarian and Hedonic		0.25	0.00
Model Fit: X^2 (CMIN) 14, $p < 0.05$ GFI = 0.96, NFI = 0.97, CFI = 0.99, TLI = 0.99 RMSEA = .40			

The model fit indices presented in the findings offer a comprehensive assessment of the model's adequacy and alignment with the observed data. Each of these indices plays a crucial role in evaluating the overall fit of the preferred model.

The Chi-Square (CMIN) statistic, with a value of 14.0 and a significant p -value of <0.05 , suggests a noticeable discrepancy between the hypothesized model and the observed data. A significant p -value for CMIN indicates a lack of perfect fit. However, it is essential to consider that the Chi-Square statistic is sensitive to sample size and can be influenced by minor model misspecifications, particularly in larger samples [35]. Therefore, a significant p -value for CMIN may not necessarily indicate poor model fit. It is worth noting that Chi-Square is commonly significant in structural equation modeling, and researchers often rely on other fit indices for a more comprehensive evaluation. The Goodness of Fit Index (GFI), Normed Fit Index, and Comparative Fit Index (CFI) all exhibit strong values. The GFI, with a value of 0.96, measures the proportion of variance and covariance in the sample data explained by the model. The NFI (0.97), and CFI (0.99), assess the improvement in model fit compared to a null model. These high values indicate a robust alignment of the model with the observed data, which is generally indicative of good model fit [36]. The Root Mean Square Error of Approximation (RMSEA), with a value of 0.40, exceeds the conventional threshold of 0.05. RMSEA evaluates the discrepancy between the hypothesized model and the population covariance matrix and is sensitive to sample size. While the RMSEA value suggests room for model improvement, it is essential to recognize that RMSEA should be evaluated in conjunction with other fit indices. In larger samples, CMIN can be sensitive to minor misspecifications, and therefore, RMSEA should not be viewed in isolation [37]. The Tucker-Lewis Index (TLI), with a value of 0.99, is another valuable fit index. TLI measures the relative improvement in fit compared to a null model, and a value close to 1.00 indicates good model fit [38]. In this case, the TLI value further supports the model's adequacy, reinforcing the idea of an acceptable overall fit.

Moreover, the findings present a nuanced picture of model fit. While the Chi-Square statistic indicates a significant discrepancy, the GFI, NFI, CFI, and TLI values strongly support the model's alignment with the data. The elevated RMSEA value should be considered in conjunction with other indices, particularly in larger samples. The results underscore the importance of a holistic approach to model fit assessment and suggest that, while there may be room for improvement, the overall model fit is acceptable. Hu and Bentler [39] suggest reporting fit indices as they are, recognizing that individual fit indices may not always meet conventional thresholds. They advise evaluating the collective picture of fit indices to gain a more accurate assessment of the model's adequacy. This approach emphasizes the importance of considering multiple fit indices in conjunction to provide a holistic understanding of model alignment with the data. It acknowledges that no single fit index can fully capture the complexity of structural equation modeling and that a balanced approach to evaluation is valuable for accurate model assessment.

4. Conclusion

The path model for the apparel industry in this study demonstrates that utilitarian and hedonic buying behaviors of college students are significant drivers of brand equity with utilitarian behavior as the best predictor. This implies that in the production and sale of apparel items, both aspects of behaviors are to be considered to enhance brand equity, a critical factor for competitive advantage among apparel companies. This means that any product for marketing should possess both utilitarian and hedonic values with more emphasis on its practical features (utilitarian). This is amplified by the significant relationship between utilitarian and hedonic behaviors, an indication that the two behaviors are interlinked in the persona of a student, regardless of sex, which forms part of one's decision to purchase or not to purchase a particular product.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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