Predictive Models for Household Spending Behavior in Shopping Malls in SOCCSKSARGEN, Philippines

Marissa G. Dela Cruz, DBA

ABSTRACT

This paper brought together income and non-income factors, namely, household size, mall situational factors and consumer decision-making styles to generate predictive models for household spending in malls using hierarchical regression analysis. Self administered questionnaire was answered by 416 household representatives in real time setting. Results generated 11 statistically significant models (p<.05). Predictive model for aggregate spending on mall offerings is a function of income, household size and task definition situational dimension. Spending in specialty stores, appliance stores and pharmacy have the same model, which is a function of income. Spending in department stores and spending on other services have the same model, which is a function of income and fashion-conscious decision style. Spending in bookstore is a function of income and recreation-conscious decision style. Spending behavior in hardware is predicted by income and brand-conscious decision style. The model for spending in entertainment is predicted by income, fashion-conscious decision style and recreational decision style. Spending behavior for food have income, household size and mall physical surrounding situational dimension as predictors. Spending in grocery has income, household size and confused by over-choice decision style as predictors. As a synthesis of income and non-income factors, the framework used in this study provides a new paradigm for understanding spending behavior of households, particularly the household mall shoppers. The spending models will serve as guide in understanding specific factors, particularly those internal to the mall.

INTRODUCTION

Almost all economies hinge on consumer spending as economic stimulus strategy. Spending pattern is so important that it is monitored periodically by the government through a nationwide survey of households, referred to as the Family Income and Expenditure Survey (FIES). The survey provides exhaustive list of levels of consumption by item of expenditure as well as sources of income in cash and in kind (National Statistics Office, 2013). Since spending pattern changes through time, expenditure components of the FIES is also revised from time to time to integrate new items commonly consumed by Filipinos during the period covered (Ericta, 2009).

In the Philippines, about 70 percent of the economy in 2012 was from household spending. It was the robust household sector which sustained economic growth of the Philippines during this year at a growth rate of 6.1 percent which, surpassing the International Monetary Fund (IMF) forecast, while almost all emerging economies were at contraction (Ko, 2012). Expenditure items with accelerated growths include health, recreation and culture, restaurants and hotels, communication, miscellaneous goods and services, transport , and food, alcoholic beverages, housing and utilities (National Statistical Coordination Board, 2013). Household Final Consumption Expenditure (HFCE) in South Cotabato, Cotabato Province, Sultan Kudarat, Sarangani and General Santos (SOCCSKSARGEN) grew by 5.2 percent in 2011. With the second largest increase in population at 26.7 percent between 2000 and 2010, HFCE in the region is expected to consequently increase. General Santos City, in particular, categorized as highly urbanized city, has a population growth rate of 2.71 percent, while North Cotabato and South Cotabato's population grew at 2.49 percent and 1.82 percent, respectively (National Statistical CoordinationBoard, 2012).

The emergence of malls in the SOCCSKSARGEN area increases the availability of household consumption goods. This abundance and variety of goods is an objective factor of consumption that increases average propensity to consume. This is validated in a report in Investigative Reporting Magazine which characterized Philippines as "Mall Republic" as malls have dominated the lifestyle and landscape of Filipinos who live in cities. This observation can be paralleled in other countries as evidenced by some studies that show that malls are not only for commercial activities but also for social activities (Pedersen,n.d.; and Michon,2008).To date, General Santos City has five shopping malls that cluster in the heart of the city. Koronadal City which is just an hour-drive away from General Santos City has three malls. Polomolok and Cotabato City have one mall each and Kidapawan City has three malls. Thus far, there is no study published or cited that is specific to Philippines that focused on household spending behavior of mall shoppers. Now that malls are not only in urban centers but are starting to invade the peripheral areas, a study on how malls influence levels of spending by households on different expenditure items found in malls is interesting and is investigated in this study. The mall situational factors and the consumer decision-making styles together with household demographics are the variables that explain household spending behavior in malls.

Statement of the Problem

This study looks into the spending behavior of household in shopping malls in SOCCSKSARGEN as influenced by the mall situational factors, consumer decision-making styles and income and household size. More specifically, this study addressed the following questions:

1. What are the demographic characteristics of households in Region XII in terms of :
   1.1 Household size
   1.2 Household average monthly income
2. What is the average household spending on the following mall offerings:
   2.1 Grocery
   2.2 Food Outlets
   2.3 Entertainment
   2.4 Department Store and Boutiques
   2.5 Specialty Stores (Cyberzone, Music, Sports, Pet shops)
   2.6 Hardware
   2.7 Appliance Stores
   2.8 Pharmacy
   2.9 Bookstore and Office Supplies
   2.10 Other Services (Salon, Optical, Dental, etc.)
3. How do households perceive the situational dimensions of malls in terms of:
   3.1 Physical surrounding
   3.2 Social surrounding
   3.3 Temporal Perspective
   3.4 Task Definition
   3.5 Antecedent State
4. What is the consumer decision- making styles profile of the respondents in the shopping malls?
5. To what extent do the following variables influence the household spending in malls of the respondents:
   5.1 Demographics
      5.1.1 Household size
      5.1.2 Household income
   5.2 Situational dimensions

5.2.1 Physical surrounding
5.2.2 Social surrounding
5.2.3 Temporal Perspective
5.2.4 Task Definition
5.2.5 Antecedent State
5.3 Consumer decision-making styles
5.3.1 Perfectionist
5.3.2 Brand Conscious
5.3.3 Novelty and Fashion Conscious
5.3.4 Recreational and Shopping Conscious
5.3.5 Price Conscious
5.3.6 Impulsive
5.3.7 Confused
5.3.8 Habitual

FRAMEWORK

The general and powerful theory of consumption is specified in a consumption function. A Consumption function relates consumption positively with household's disposable income specified as *C = f (Yd)* where: *C* is consumptions and *Yd* is disposable income. Postwar theories of consumption explain further how income change affects levels of consumption (Gottheil, 2013). The more prominent of these theories are:

*Keynes' Absolute Income Hypothesis*which explains that consumption spending is planned for various levels of disposable income and is positively influenced by income. However, increase in consumption is not as much as the increase in income. According to Keynes, those with high income levels tend to spend lesser amount of the increase income for additional consumption (Gottheil, 2013). Moreover, Keynes also recognizes non-income factors to have effects on consumption which, he integrated in the consumption function *C = Co + bYd, where Co* is autonomous consumption. Autonomous consumption is the amount of consumption that is not influenced by income, but by some subjective and objective factors (Diulio, 1974). Subjective factors refer to the psychological aspects of consumption decisions or the willingness factors, while objective factors are those which affect consumption spending like distribution of income, consumer credit, taxes, expectations, interest rates, savings, unemployment and urbanization and the like.

The Life-Cycle Consumption Hypothesis of Modigliani is another postwar theory of consumption. It gives importance to three phases of the person's life. This consumption theory supposes that the marginal propensity to consume (MPC) of the young adult is relatively high as they build families. This spending pattern is sustained and increases, but at moderate rates when the consumer is in his middle age. As the consumer comes close to retirement age, MPC still increases because even if income increases it is not as much as in the previous phase because spending habit is already difficult to break. This is referred to by Modigliani as the ratchet effect, which means that consumption is irreversible.

*Relative Income Hypothesis*of Duessenberry offers a different explanation of household spending. This theory views consumption as benchmarked on lifestyle of high-income people in the community. The middle-income consumer tries to stay close in terms of consumption with high income consumers and the low-income consumer aspires to be comparable with middle-income group (Diulio, 1974; Gottheil, 2013). According to Diulio (1974), this theory of consumption is superior over the theory of Keynes in terms of reconciling the non-proportional and proportional relationship of consumption spending and income. WhilePermanent Income Hypothesis and Life-

Cycle Hypothesis emphasize that consumption is induced by income, the Absolute Income Hypothesis and the Relative Income Hypothesis (RIH) suggest that household consumption is, likewise, influenced by the environment. Relative Income Hypothesis posits that affluent neighborhood sets the standard and drives people to spend more. Thus, consumption behavior of the household in the geographic area would be relative to the consumption behavior of his neighbor as they conform to the same economic status (Gottheil, 2013).

Figure 1 illustrates the relationship between these factors and households spending in malls. This framework provides synthesis of the income and non-income theories of consumption. The non-income factors are the situational dimensions, consumer decision-making styles and household demographic characteristics. On the other hand, the household's expenditures in malls are expenses made by a family in the mall for private consumption such as in food outlets, entertainment, department store and boutiques, specialty stores, hardware, appliances, pharmacy, bookstore and office supplies and other services.

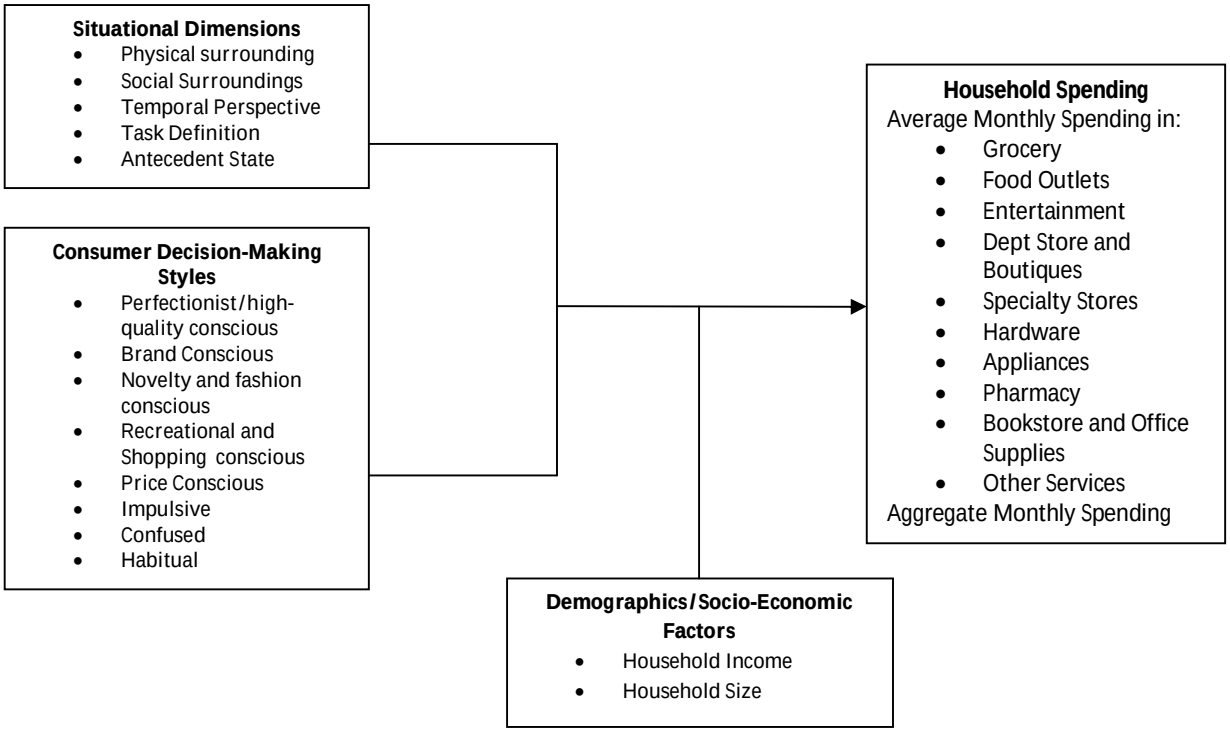

Figure 1. Conceptual Model of Household Spending Behavior in Malls

METHODS

Research Design

This study has utilized the descriptive-correlation research design. This design is used to investigate the relationship between two or more variables (Cresswell, 2003). In this study, the relationship of situational dimensions and consumer decision making styles on the household spending was investigated.

Respondents

The respondents are the mall shoppers who represent his/her household. As a household member (either the male or the female) he/she must have sufficient knowledge of what the household spends for and by how much. Moreover, it is appropriate that this household representative goes to the mall and buys consumption goods for the household. Hence, purposive sampling is deemed appropriate in the selection of the respondents. The total number of 490 respondents has participated in this study.

Instruments

A survey questionnaire was used to gather data from the respondents which is consist of three parts. Part one contains information about the household such as household size, household income and data on household spending on the ten (10) different categories of goods and services that are in the malls. Part two contains the situational factors that relate to households shopping experiences in the mall that may have impact on their spending behavior. Twenty five Likert-type statements are rated by households by indicating their agreement or disagreement to the existence of the situations during mall shopping. Ratings are on a five-point scale where "1" denotes strongly disagree, "2" disagree, "3" neither agree nor disagree, "4" agree and "5" strongly agree. Part three pertains to the consumer decision-making styles consisting of 40 items. Consumer Style Inventory (CSI) developed by Sproles and Kendal (1987) is used. The CSI inventory consists of five (5) items corresponding each of the eight (8) possible decision styles. Households rate themselves on the basis of how they make purchase decisions by indicating their agreement or disagreement to every statement that described a particular decision style. Ratings are on a five-point scale, where "1" indicates strongly disagree, "2" indicates agree, "3" indicates neither agree nor disagree, "4" indicates agree and "5" indicates strongly agree.Meanwhile, using the description of reliability indices in the work of Chang and Fisher (2003) and Nunnally and Bernstien (1994), it can be said that most of the subscales in decision-making styles have high reliability indices with alpha values of 0.7 or higher. Only Fashion Conscious and Recreational conscious scales exhibited moderate reliability (Cortina, 1993; Janssens, et.al., 2008). This implies that items under different subscales of decision-making styles are consistent in measuring the consumer-decision making styles they are supposed to measure. The over-all instrument for Consumer Decision-Making styles and Situational Factors exhibit high reliability (.86 and .82, respectively). This implies that the consumer decision making styles instrument is able to generate consistent responses as measures of decision styles. Moreover, using the description of reliability indices in the work of Chang and Fisher (2003) and Nunnally and Bernstien (1994), it can be said that two of the subscales in situational dimensions have high reliability indices with alpha values of 0.7 or higher. However, four of the scales exhibit moderate reliability (Cortina, 1993; Janssens, et.al., 2008). Nevertheless, the over-all instrument for situational factors exhibit high reliability (.82). This implies that the situational dimensions instrument is able to generate consistent responses as measures of situational dimensions.

Statistical Treatment

Descriptive statistics such as frequency distribution and mean are used to summarize household size, household income and household spending. Moreover, household expenditures are aggregated to get the total amount spent in malls. Ratio of household spending by category with respect to total spending are used to examine the proportion of spending on each category vis-à-vis total spending. These pieces of information are used to further characterize household's economic affluence or lifestyles as influenced by malls in this part of the country. Household's ratings corresponding the five situational dimensions are summarized by getting the average scores or the mean and determine households profile with respect to their perceptions on the five situational factors.

Households decision-making styles applied during mall shopping are also determined based on the scores they give to each statement that describe the different decision styles. Scores representing their agreement or disagreement on different statements that characterize their household consumer personality were summarized by computing the mean value.

Finally, household spending is regressed against situational factors, consumer decision-making styles as direct independent variables and household income and household size as moderating Hierarchical regression is used to control the effects of household size and household income on household spending. Models that can predict household spending behavior of mall shoppers are generated from the output of Hierarchical Regression. The goodness of fit of the model with the data is evaluated based on the ANOVA results and the corresponding significance value. The coefficient of determination (R square) is used to evaluate the proportion of variance that can be explained by the model generated. (Janssens, et.al., 2008; Hair, et.al., 2010). The p-value in the regression output are bases for rejecting or not rejecting the null hypotheses at 0.05 level where if the p-value is less than 0.05, then the null hypothesis is rejected (Janssens, et.al., 2008; Hair, et.al., 2010).The determinants in the model are identified based on the significance of the regression coefficients (Janssens, et.al., 2008; Hair, et.al., 2010). The standardized coefficients and t-values are used to evaluate the impact of the significant variables to the dependent variable. Normality tests and tolerance values are used to evaluate whether the assumptions on the use of regression analysis are satisfied.

RESULTS AND DISCUSSIONS

Household Profile

Household size. The size of household is the number of persons who live together and share in common household food. They may not necessarily related by blood nor bound by ties. Household members include relatives and other persons who share the community life for reasons of work or other considerations. A person who lives alone is considered a household (National Statistical Coordination Board, 2013). Table 1 shows that household size of mall shoppers range from one (1) to twelve (12) persons with an average size of 4.8 persons. The smallest household size comprises 4.3 percent of the households while households with the most number of members in only 0.2percent sample households.

Table 1. Distribution of Households According to Household Size

Household Size	Frequency	Percent	Cumulative Percent
1	18	4.3	4.3
2	20	4.8	9.1
3	73	17.5	26.7
4	81	19.5	46.2
5	89	21.4	67.5
6	62	14.9	82.5
7	36	8.7	91.1
8	20	4.8	95.9
9	8	1.9	97.8
10	6	1.4	99.3
11	2	.5	99.8
12	1	.2	100.0
Total	416	100.0	

Mean = 4.7981

Households with three members comprise 17.5 percent; those with four members comprise 19.5 percent; households with five members are 21.4 percent; and households with six members are 14.9 percent of the total households. This implies that a major proportion of the households

have household size between three to six members. The few households with big household size (10 to 12) have resulted to a partially skewed to the right distribution that is shown in Figure 2.

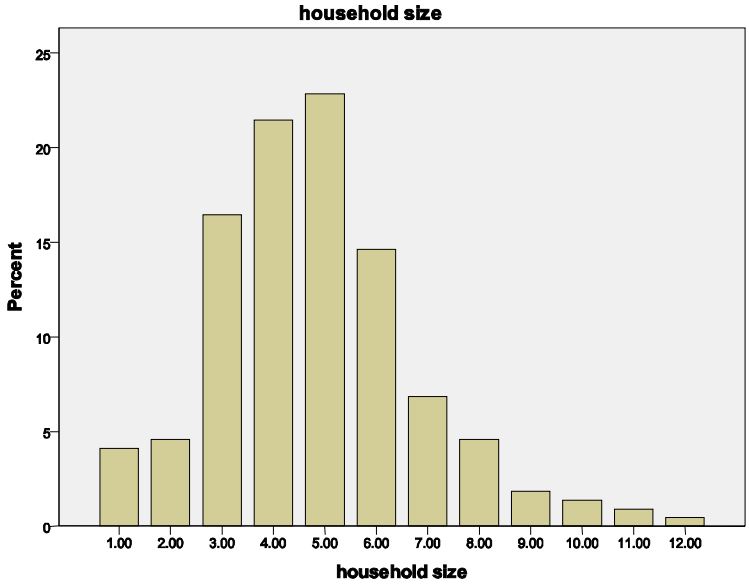

Figure 2. Distribution According to Household Size

According to National Census, household size is small if there are three or less members; medium-sized if there are four to six members; and large if there are more than six members (National Statistics Office, 2010). Using this classification the major proportion of households (cumulative percentage of small and medium-sized = 82.5 percent are within the small and medium-sized households while large households comprise 17.5 percent of the sample households.

Household Income. As reflected in Table 2, the average income of households ranges from Php10, 000 to Php200,000. Around 11 percent of the households have incomes less than Php10,000 while less than one percent (.7 percent) have incomes of more than Php200,000. The largest proportion of households (32 percent) has income between Php10, 000to Php19, 999.

Table 2. Distribution of Households According to Household's Monthly Income

Monthly Income	Frequency	Percent
Below 10,000	47	11.3
10,000 to 19,999	132	31.7
20,000 to 29,999	92	22.1
30,000 to 39,999	70	16.8
40,000 to 49,999	19	4.6
50,000 to 59,999	23	5.5
60,000 to 79,999	15	3.6
80,000 to 99,999	8	1.9
100,000 to 149,999	4	1.0
150,000 to 199,999	3	.7
200,000 and above	3	.7
Total	**416**	**100.0**

The income statistics in Table 3 shows that the mean income is Php27, 919.98 while the median income is Php20, 000. This indicates an inflated mean income which can be attributed to the few number of households with very high incomes, particularly those with incomes of Php200, 000 or more.

Table 3. Household Income Statistics

Mean	27,919.98
Median	20,000.00
Std. Deviation	27,729.09
Skewness	1.448
Minimum	3,500.00
Maximum	250,000.00

This average monthly income of Php27, 920 or average annual income of Php335, 040 is much higher than the national average annual family income in 2012 of Php235, 000 as reported by the National Statistics Office (National Statistics Office, 2013). This difference can be attributed to the composition of the sample. National Statistics sample is taken from a much bigger and heterogeneous population that include all income levels, whereas, the sample household are only limited to the mall shoppers. The household distribution based on their income is further illustrated in Figure 3 which appears postively skewed.

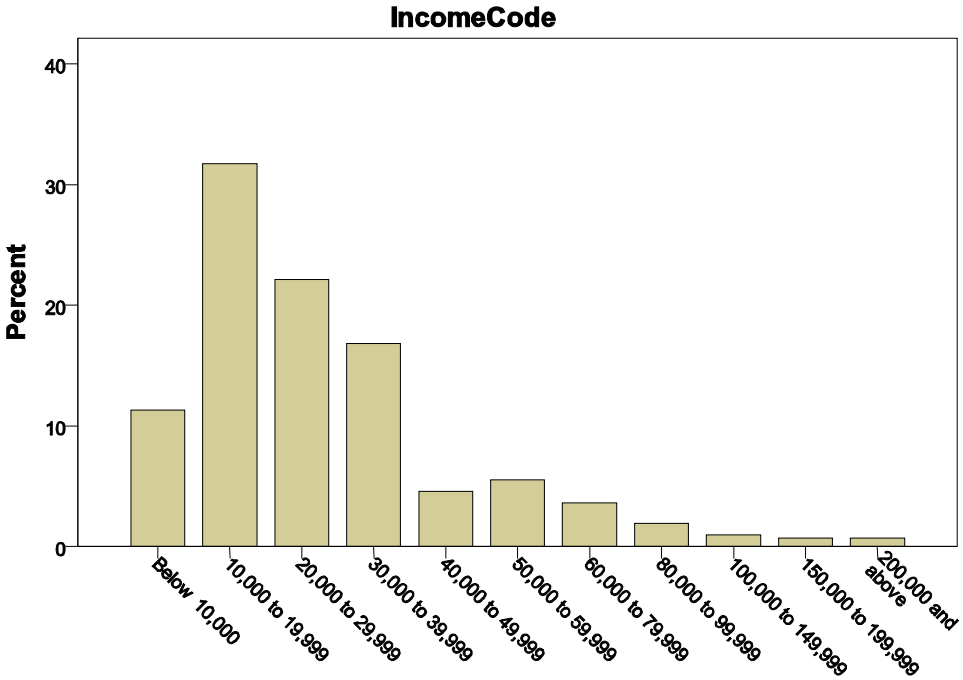

Figure 3. Income Distribution of Household

As a basic determinant of consumption, household's income is a yardstick that measures how much can be spent in malls for the various needs of the households. Thus, for the major proportion of the households (32 percent), it is expected that their spending in malls can range between Php10, 000 to Php19, 999 and none in this group can spend more than their given incomes, unless they dip into past savings, purchase on credit or borrow funds for consumption purposes. The households spending capacity and the decision to increase or decrease spending would hinge on the direction and the amount of any change in the household income.

Using the Socio-Economic Classification (SEC) by Pulse Asia (Mangahas, 2010), households can also be categorized according to socio-economic class. As Table 4 indicates, the major proportion (61 percent) of the shoppers belong to the middle class (households whose monthly incomes range between Php15,001 to Php50,000 while 19 percent are in the lower middle class and 12 percent are in the upper middle class. A small percentage of households are in the extreme income classes of the society: two percent (2%) and seven percent (7%) at the upper class and

lower class, respectively. Nevertheless, it can be said that household mall shoppers come from all socio-economic classes which validates Hajer and Reijendrop (2000) characterization of malls as the new public place. As a public place everyone has access regardless of socio-economic status.

Table 4.Distribution of Households by Socio-Economic Class

Socio-Economic Class	Frequency	Percent (%)	Mean Income(Php)
Lower Class (less than 8,000Php)	29	7.0	5,904.14
Lower Middle Class (8,001-15,000Php)	77	18.5	11,998.28
Middle Class (15,001 – 50,000Php)	254	61.1	28,075.94
Upper Middle Class (50,000- 100,000Php)	46	11.1	71,774.19
Upper Class (more than 100,000Php)	10	2.4	183,571.43
Total	**416**	**100.0**	

The wide income gap between the two social classes at the extreme ends indicates high income inequality. However, in the context of distribution of goods, the mall has become a leveler of social equity as a convergence point for households from different social classes.

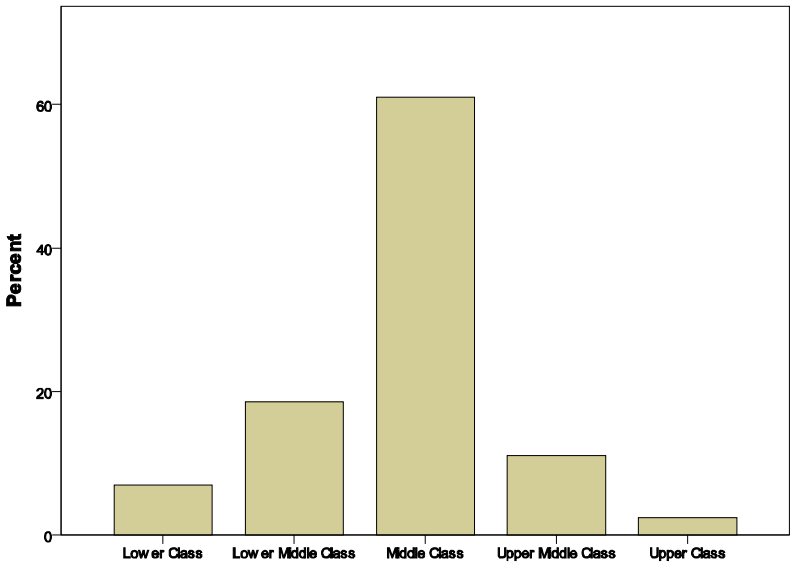

Figure 4. Socio-Economic Classifications of Households

As reflected in Figure 4, there is a high proportion of middle class (61 percent) which implies that there is income homogeneity among mall shoppers. This, further implies, that the largest spending block in malls come from the middle class. This is probably because goods and services malls offer target this sector of the society. The forecast made by Khares (2010) that there will be an emerging middle class in Asia is supported by this observation. This situation was picked up as signal by malls as we see them locating not only in urban centers but have started to invade the outskirts.

Taking together household size and household income, the per capita income of a household, obtained by dividing the household income by the household size, is an indicator of the economic affluence of a household. Intuitively, given the same income, a smaller family is be better off than a bigger family since income share of every household member is inversely proportional with household size. Moreover, the types of goods that families with high per capita incomes consume are more of normal and luxury goods. This is contrary to families with low per capita incomes who, by their economic consequences, are inclined to consumer inferior goods.

Given the average household income of Php27, 219.98 and the average household size of 4.8, then, the average monthly per capita income is at around Php5, 816.67. This indicates that on the average, every family member has this much share in household spending and household consumption.Mall management and mall tenants can play very significant roles in providing goods and services that households would consume. The propensity to consume by households is driven by the availability and abundance of consumption goods (Gottheil, 2013).

Household Spending

Household spending includes only the categories of goods and services offered by malls and are classified broadly into the following: grocery, food outlets, entertainment, department store and boutique, specialty stores, hardware, appliance store, pharmacy, bookstore and office supplies and other services (i.e. optical, dental, salon, etc).

Table 5. Average Household Spending on Different Expenditure Categories (in pesos)

Spending Category	Minimum	Maximum	Mean	Std. Deviation
Grocery	300.00	25,000.00	5,245.07	4,188.85
Food Outlets	.00	25,000.00	2,009.59	2,637.68
Entertainment	.00	5,000.00	628.95	857.68
Department Store and Boutique	.00	40,000.00	1,757.73	2,938.61
Specialty Stores	.00	20,000.00	785.11	1,770.09
Hardware	.00	20,000.00	592.50	1,488.15
Appliances	.00	15,000.00	752.04	1,657.94
Pharmacy	.00	25,000.00	1,631.59	2,642.43
Bookstore and Office Supplies	.00	10,000.00	803.07	1,221.93
Other Services	.00	15,000.00	609.03	1,255.29
Total Household Spending	**1,900.00**	**90,675.00**	**14,814.66**	**11,241.95**

As shown in Table 5, households spend a minimum of Php300 on groceries and zero in all other expenditure categories. The highest maximum spending is in the department store at Php40,000, followed by spending in grocery, food outlets and pharmacy at Php25, 000 each, while the lowest maximum spending is on other services at Php5,000. The top five (5) household expenditures are in grocery, food outlets department store, pharmacy and bookstore, in that order. Households spend an average of Php5, 245 in grocery, Php2, 009.59 in food outlets, Php757.73 in department store, Php1, 631.59 in pharmacy and Php803.07 in bookstores.

Figure 5 shows the proportion of the spending category to total household spending. Grocery is approximately 35 percent of households total spending, spending in food outlets is 14 percent, spending in department store 12 percent, 11 percent in pharmacy and 6 percent in bookstore. The spending categories that have the least share in total spending are spending in entertainment, hardware and other services. Since items households buy from the grocery include food and non-food items, then, spending in food may constitute the largest part of household's total spending in the mall.

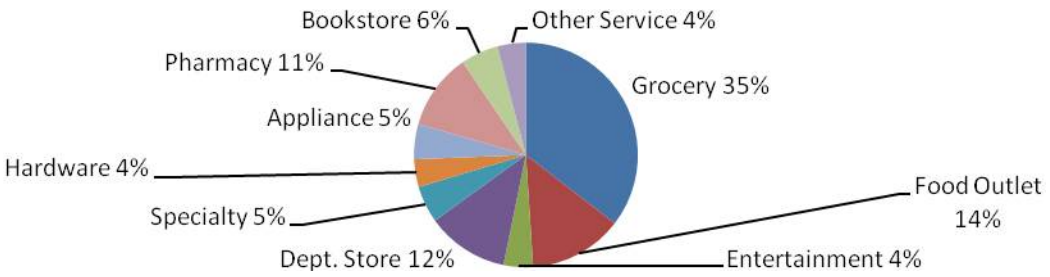

Figure 5. Proportion of Household Spending on Various Categories of Goods

The spending pattern of households indicates that households are rational consumers, able to set proper spending priorities. The proportion of spending in grocery, food outlet and department store, indicates that these categories of spending are necessity expenditures to households. Moreover, the relatively big proportion of spending in pharmacy is an indication that health is also given importance by households. On the other hand, entertainment, hardware, and other services are considered as nonessential goods based on the proportion of household spending on these categories of goods. The level of spending by households in malls indicates that they are not simply browsers but are economic shoppers. Households are expected to create customer traffic particularly, in the grocery or supermarket of malls. According to Tey (2008), the big share of grocery in mall household spending is a reflection of households' affluence. A parallel finding from a study in Chennai by Anuradha and Manohar (2011)assessed the customer shopping in malls. The researchers found that customers mostly visit, among others, apparel stores, food services, and department stores.

The average aggregate spending in malls by the households is Php14,814.66 which is approximately 54 percent of household's income. This means that malls have carved themselves in the economic lives of households and have played significant role in the satisfaction of households needs. If this spending level in malls is sustained, it can boost the hosts' local economy because income are locked-in by malls and prevented income leakage in the local economy. For households on the other hand, *"a good economy means you can buy things you don't really need"*(Tabuchi, 2013).

Households' Perceptions of the Mall Situational Dimensions

The situational dimensions are situations that are present at the moment of household's mall shopping activities.

Figure 6 shows the summary of households' rating on the five situational dimensions which range from 3.06 to 3.78. On the average, households agree that the mall's physical environment (mean=3.78) and social environment (mean=3.55)that relate to their shopping experiences exist. On the other hand, they are neutral or cannot categorically agree nor disagree that temporal perspective (3.06), task definition (3.29) and antecedent state (3.48) dimensions prevail in their shopping experiences.

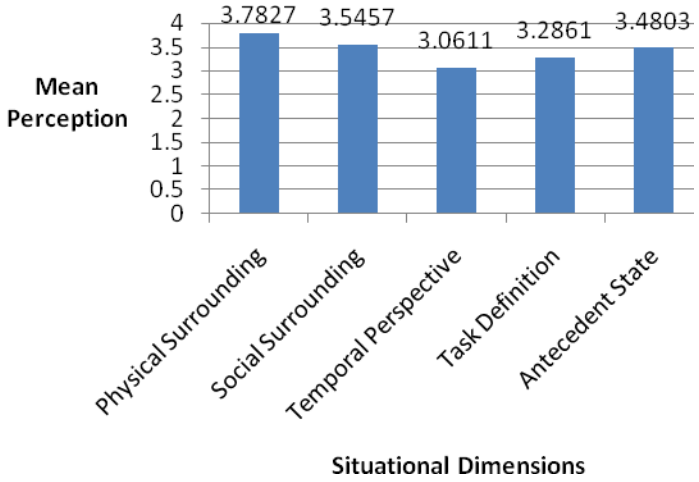

Figure 6. Perceptions of Households on the Mall Situational Dimensions

With respect to the physical environment, households give highest rating to this dimension (3.87). Table 6 indicates that households find malls spacious, have enough variety of stores and

goods they need and want. Thus, it can be said that malls physical surrounding make households shopping satisfying and enjoyable.

Table 6. Households Perception of the Physical Surrounding of the Mall

Physical Surrounding	Mean	Perception
Size of the Mall	3.79	Agree
Arrangement of Merchandise	3.83	Agree
Variety of Stores	3.82	Agree
Assortment of Goods	3.83	Agree
Availability of Products to buy	3.66	Agree

Households rating of the physical environment imply that the size of the mall, the arrangement of the merchandise and the variety of stores and merchandise are acceptable and important to mall shoppers. It further implies that physical surrounding attract households and cause them to frequent the malls which consequently affect household spending (Te, 2007). Moreover, it implies that the mall is a one-stop center for shopping. This finding is parallel to the experience of Americans (Nicholls, Roslow, & Dublish, 1997) and Indians (Nicholls, Roslow, & Dublish, 1997; Bansal & Bansal, 2012).

Table 7 shows that households agree that mall is a wholesome place for family and friends and they usually shop with a family member. But they indicate that shopping is faster when done alone. On the other hand, households are indifferent to the situation that companions can help in shopping. This implies that, shopping with or without a companion or children do not really matter to households

Table 7. Households Perception of the Social Surrounding in the Mall

Social Surrounding	Mean	Description
Place to enjoy with family and friends	3.82	Agree
Shopping with companions to help in shopping	3.48	Neutral
Shopping with family	3.64	Agree
Shops faster when alone	3.54	Agree
Shop with Children	3.25	Neutral

Social environment is the second dimension rated high by households (mean rating 3.55). A high rating on social environment implies that those households are social shoppers (Nicholls, Roslow, & Dublish, 1997). This can be the perception of households who are exposed to big malls where recreation and entertainment are available. Big malls are also venues for other social events like concerts, Junior-Senior Prom, recognition day and even graduation, and contests. Today, trade exhibits, organizations' assemblies, meetings and even big conventions are already held in malls. Other small group meetings by business associates or meeting friends are done in the malls.This finding is parallel with the findings among Indian shoppers, who believed that malls are the best place to shop and at the same time hangout (Terblanche, 1999) and to the shopping behavior among shoppers in non-western country like Malaysia (Ahmed, Ghingold, & Dahari, 2007).

Table 8 shows the households perceptions on the temporal perspective dimension. As indicated by the mean rating, households prefer to shop mostly on weekends and usually spend more than one hour shopping. Households shop anytime of the day. Travel time from residence to the mall vary each time each time households go the mall.

Table 8. Households Perception on the Temporal Perspective of the Mall

Temporal Perspective	Mean	Description
Travel Time to the mall	2.92	Neutral
Shopping any day of the week	3.09	Neutral
Shopping on weekends	3.60	Agree
Time of shopping	3.21	Neutral
Time spent shopping	2.49	Disagree

Shoppers perceptions on the temporal perspective dimension of their shopping experience imply that the distance of their homes from the mall and the time spent to travel to the mall are not hindrances to their mall shopping activities. This household's perception can be explained by either the proximity of their homes or offices to the mall or by the households' willingness to travel the distance from home or work to the shopping mall.

According to Nicholls, et. al. (1997) shoppers are characterized as early shoppers if they shop before 3 P.M and late shoppers if arrive in the mall later than 3 P.M. Shoppers are also characterized as slow shoppers if their mall activities are completed beyond one hour, otherwise, they are quick shoppers (Nicholls, Roslow, & Dublish, 1997). Using this to describe shoppers in SOCCSKSARGEN, it can be said that they are slow shoppers. Staying longer than one hour in the mall can be attributed to the variety of mall offerings and the tasks that households do in the mall. This particular finding is consistent with mall shopping behavior of Malaysian college students who spend an average of two and a half hours every mall visit (Ahmed, Ghingold, & Dahari, 2007).

Table 9 shows the tasks performed by households during mall shopping. It indicates that households go the mall primarily to buy immediate needs. They also shop to purchase clothing. However, households cannot categorically agree nor disagree that making major purchases and entertainment are the usual primary reasons of their mall visit. When shopping, they are not also consistently using big carts every time they shop. The shopping tasks performed by households show that the mall plays important role in supplying the basic goods that households need.

Table 9. Households Perception of the Task Definition

Task Definition	Mean	Description
Make major purchases at the mall	2.69	Neutral
Buy immediate needs in the mall	3.88	Agree
Purchase clothing in the mall	3.58	Agree
Go to mall for entertainment	3.11	Neutral
Use shopping cart when shopping	3.16	Neutral

The findings are different from Saudi Arabia shoppers who perceived malls as the place for other activities such as entertainment (Ahmad, 2012). Christiansen et al. (2000), in their study, also implied that entertainment magnets shoppers to go to the mall.

The conflicting results can be explained by the fact that malls in SOCCSKSARGEN, except in General Santos City, do not have entertainment centers like cinemas or fun centers. With regards to major purchases, malls outside General Santos have limited appliances or have no appliance stores at all.

Table 10 reveals that households have favorite stores and find the brands they prefer in the mall. They also rate their previous mall experiences pleasant. On the other hand, households are neutral to mall incentives and mall personnel's attitudes. This implies that preconditions to shopping activities of households are favorite stores, preferred brands and pleasant mall experience.

Table 10. Households Perception of Antecedent State

Antecedent State	Mean	Description
Have favorite stores	3.51	Agree
Pleasant mall experience	3.77	Agree
Mall incentives	3.38	Neutral
Accommodating mall personnel	3.22	Neutral
Presence of preferred brands	3.53	Agree

Consumer Decision-Making Styles

Consumer decision-making styles are consumers shopping personality which according to Mokhlis (2009) are enduring and predictable. The generalizability of decision styles across culture

remains the subject of continuing research in marketing. The evidence of the existence of the different decision styles among households in SOCCSKSARGEN is summarized in Table 11 and Figure 7. The mean values indicate the extent by which households implement the corresponding decision styles during their mall shopping activities which range from 2.61 to 3.90.

Table 11. Households Consumer Decision-Making Styles

Consumer Decision-Making Style	Mean	Description
High Quality Conscious	3.90	High in Quality Consciousness
Brand Conscious	2.96	Moderate in Brand Consciousness
Fashion Conscious	3.09	Moderate in Fashion Consciousness
Recreational Conscious	3.01	Moderate in Recreation
Price Conscious	3.77	High in Price Consciousness
Impulsive or Careless	2.61	Moderate Impulsive
Confused by over-choice	3.01	Moderately Confused by Over Choice
Brand-loyal Conscious	3.12	Moderate in Brand Loyalty

On the average, households are high in high-quality consciousness (3.90) and price consciousness (3.77) and moderate in brand consciousness (2.96), brand loyalty (3.12) and fashion consciousness (3.09). They are likewise moderately recreational shoppers (3.01). On the other hand, households are moderately impulsive (2.61) and moderately confused by the over-choice of goods.

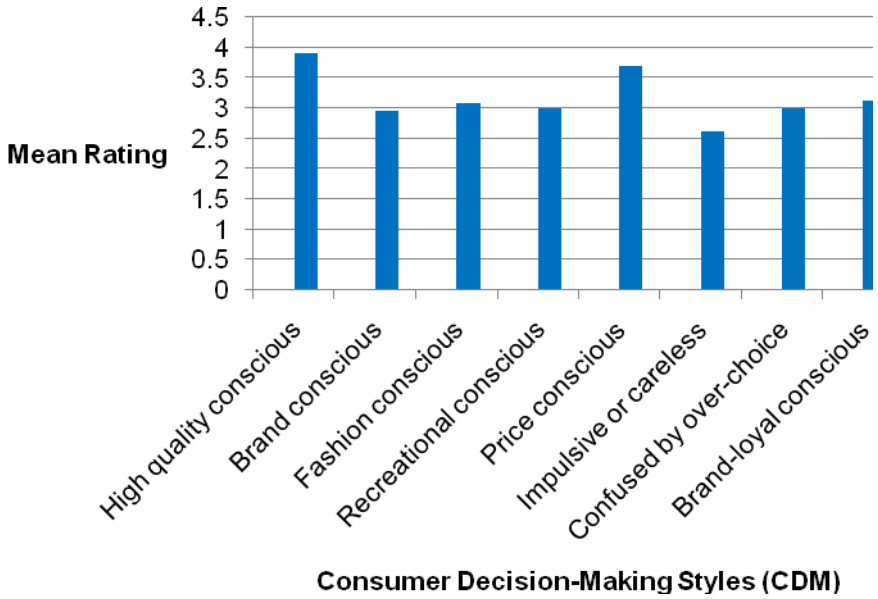

Figure 7. Households Decision-Making Styles

As shown in Figure 7 the dominant decisions styles of households are high-quality consciousness and price consciousness. This is illustrated by bars that rise beyond 3.5. Nevertheless, other decision styles are also evident but not as strong as the first two mentioned earlier. Table 11 and Figure 7 imply that households have multiple shopping personalities.

The extent of high-quality consciousness (3.90) of the households is similar with the Macedonians (3.92 for males and 3.86 for females) (Anic & Radas, 2006). It also supports the findings of Sproles, et.al. (1987) that consumers are capable of applying more than one consumer decision style. According to Ravindran et al. (2009), households who are high-quality conscious are also considered perfectionists.

Table 12 indicates that a major proportion of the households are at least high in quality consciousness (high=56.5 percent and very high = 20.2 percent) and around 20.7 percent are moderate in quality consciousness.

Table 12. Distribution of Households According to Consumer Decision-Making Style: High-Quality Conscious

High- Quality Conscious	Frequency	Percent (%)
Very low	2	.5
Low	9	2.2
Moderate	86	20.7
High	235	56.5
Very high	84	20.2
Total	**416**	**100.0**

Quality conscious shoppers usually take time to search and compare possible options that are in the mall stores. In their quest for quality, households usually seek opinions of companions and sometimes of the attending sales personnel (Akturan & Tezcan, 2007). They take time to shop to search for best products and are careful and systematic to compare options. Perfectionist households would not settle with just "good enough" (Ravindran, Ram, & Kumar, 2009). It can be implied from the number of quality conscious or perfectionist shoppers that products in the malls are perceived by households as quality products.

Table 13 shows that a total of 75 percent of the households are brand conscious at a degree that range from moderate to very high.

Table 13. Distribution of Households According to Consumer Decision-Making Style: Brand Conscious

Brand Conscious	Frequency	Percent (%)
Very Low	9	2.2
Low	93	22.4
Moderate	236	56.7
High	70	16.8
Very High	8	1.9
Total	**416**	**100.0**

Households who are brand conscious usually equate price with quality (Wesley, LeHew, & Woodside, 2006) are very particular with buying the most expensive and popular brands. Brand conscious shoppers are also captivated by advertisements and are enticed to buy the best-selling products (Sproles & Kendall, 1987). Since popular brands, like national or international brands, are usually in boutiques and are priced high, households who are brand conscious spend more in these stores.

Table 14 shows the frequency of fashion conscious households. Twenty three percent of the households are at least high fashion conscious and 57 percent are moderate fashion conscious.

Table 14.Distribution of Households According to Consumer Decision-Making Style: Fashion Conscious

Fashion Conscious	Frequency	Percent (%)
Very Low	6	1.4
Low	74	17.8
Moderate	237	57.0
High	91	21.9
Very High	8	1.9
Total	**416**	**100.0**

High fashion conscious shoppers usually have at least one outfit of the latest style to keep up with the changing fashion. They usually shop in different stores to get varied items. Fashion conscious shoppers prefer fashion over quality. In AC Nielsen (2002) report for the Philippines,

Filipinos are described as more attuned to new ideas and trends than their counterparts in Asia,and in Michon's, et.al (2008) study inferred that malls put emphasis on fashion and mall atmosphere because of their significant impact on shoppers' behavior. Tiwari and Abraham (2010) reported that shoppers in Raipur are motivated to shop malls because of their desire for exploration. While Khares (2010) concluded in his study that malls in small cities are looked at with excitement. It can be implied that fashion conscious consumers always watch for new products, new fashions and new fads to come out thus, they frequent malls and spend on things that excite them.

Table 15 the number of households with recreational conscious personality It is indicated that 58 percent of the households are at least moderate in this shopping personality while 21 percent are at least high recreational shoppers.

Table 15. Distribution of Households According to Consumer Decision-Making Style: Recreation Conscious

Recreation Conscious	Frequency	Percent (%)
Very Low	7	1.7
Low	75	18.0
Moderate	243	58.4
High	88	21.2
Very High	3	.7
Total	**416**	**100.0**

Moderate recreational-shopping households find pleasure in shopping and may do shopping just for the fun of it (Wesley, LeHew, & Woodside, 2006). These shoppers are at certain times just go to malls for leisure, without necessarily buying. According to Haynes and Talpade (2008), entertainment in broad sense can be the entire shopping experience. Their study found out that entertainment-oriented shoppers are younger and visit the mall with their families (Haynes & Talpade, 2008).

The existence of recreation conscious mall shoppers supports the findings among Indians who are find malls as venues for enjoyment, relaxation and entertainment (Khare, 2011). In another study, recreation conscious shoppers are between 11 to 30 years old. This group of shoppers finds shopping a pleasant activity (Ravindran, Ram, & Kumar, 2009).

In Table 16 price conscious households comprise the majority (high = 64.2 percent and very high = 9.9 percent).

Table 16. Distribution of Households According to Consumer Decision-Making Style: Price Conscious

Price Conscious	Frequency	Percent (%)
Very Low	1	.2
Low	6	1.4
Moderate	101	24.3
High	267	64.2
Very High	41	9.9
Total	**416**	**100.0**

Price conscious shoppers are referred to by Wesley, et.al (2006) as the "value-for-money" shoppers. They try to get the lowest price possible for the product and look carefully to find the best value for their money (Sproles & Kendall, 1987). According to Wesley, shoppers with high price consciousness are expected to spend less (Wesley, LeHew, & Woodside, 2006). Households who give importance to price are considered rational consumers. Price conscious decision-making style was also observed among Indians. They usually watch for sale prices and make sure that they pay the right price for the product (Ravindran, Ram, & Kumar, 2009).

Table 17 shows the number of respondents according to the extent of being impulsive shoppers. Accordingly, 44.75 percent are not impulsive buyers (low 38.9 percent; very low 5.8 percent) However, almost half of the households (44.7 percent) are moderately impulsive and around 10% are high impulsive.

Table 17. Distribution of Households According to Consumer Decision-Making Style: Impulsive

Impulsive/Careless	Frequency	Percent (%)
Very Low	24	5.8
Low	162	38.9
Moderate	186	44.7
High	43	10.3
Very High	1	.2
Total	**416**	**100.0**

The moderate impulse buyers sometimes do not give much thought to what they buy and have the tendency to result to buying the first product they see as good enough. Moreover, they are sometimes quick shoppers that they buy things they later regret or sometimes not used at all. Thus, moderate impulse shoppers result to unplanned spending.

Table 18 gives the distribution of households according to decision style "confused by over-choice". As indicated, 49.5 percent is moderate in this decision style, while 27.4 percent is at least high. (High 26.4 percent; very high one percent).

Table 18. Distribution of Households According to Consumer Decision-Making Style: Confused by Over-Choice

Confused by Over-Choice	Frequency	Percent (%)
Very Low	9	2.2
Low	87	20.9
Moderate	206	49.5
High	110	26.4
Very High	4	1.0
Total	**416**	**100.0**

They are the shoppers who, when faced with many brands and stores, are easily confused which one to buy or which store to shop. Thus, these households are not helped by too many information, but rather, suffer from information overload. This problem can be aggravated when households go to the mall without specific plans what to buy. Indian shoppers were found to experience confusion due to over choice during shopping (Ravindran, Ram, & Kumar, 2009). Similar decision style was also observed among the Chinese shoppers which wereattributed to the number of brands, stores and information coming in (Sproles & Kendall, 1987). Cankurt et. al. (2013) also identified this decision style in food shopping behavior.

Table 19 reflects the number of brand loyal or habitual households. These arehaving favorite brands or stores, which are usually the first brands and stores they wanted to see. Most often brand loyal shoppers to the brands or stores regardless of the price. Households who are moderate in this decision style is 46.2 percent and those who were at least high in brand loyalty is 33.9 percent of the sample households. Thus, brand loyalty as a mental orientation to making buying decision is evident among households in SOCCSKSARGEN region.

Table 19. Distribution of Households According to Consumer Decision-Making Style: Habitual or Brand Loyal

Habitual or Brand Loyal	Frequency	Percent (%)
Very Low	6	1.4
Low	77	18.5
Moderate	192	46.2
High	136	32.7
Very High	5	1.2
Total	**416**	**100.0**

The opposite of this decision style is the "variety seeker". As shown above, they comprise 19.9 percent (low 18.5 percent and very low 1.4 percent) of the households. Variety seekers were also observed among Indian shoppers. Indian shoppers switch brand even if the usual brand that previously satisfied their needs are still present in the mall (Ravindran, Ram, & Kumar, 2009).

In summary, the data presented above implies that the eight (8) decision-making orientations are evident among households to a degree that range from moderate to high. Households who are perfectionists or high-quality conscious comprise 76.7 percent of the households; 18.7 percent are brand conscious; 23.8 percent are fashion conscious; 21.9 percent are recreational conscious; 74.1 percent are price conscious; and 33.9 percent are habitual or brand loyal. On the other hand, 44.7 percent are low in impulsive shopping personality and 23.1 percent are also low in "confused by over-choice" decision style. The dominant decision styles exercised by households are perfectionism or high-quality consciousness and price consciousness.

These findings support not only the pioneer study conducted on decision styles by Sproles and Kendall (1987), but also studies done in China tried to make an inventory of the decision-making styles exercised by consumers from different cultures.

The dominant decision styles - quality consciousness and price consciousness – of Filipino households are parallel with the decision styles of Indian shoppers. Indian consumers were found to exercise all decision styles, except brand consciousness (Ghodeswar, n.d). However, Wesley (2013) established that adult mall shoppers are perfectionists and also brand conscious. In Mokhlis and Salleh's (2009) generalization, consumer decision styles have applicability across culture – Malaysian, Chinese, and India, is supported by this study.

Predictive Models for Household Spending

Predictive models for household spending behavior in malls are derived through Hierarchical Regression Analysis. Household spending behavior on every category of goods and on aggregate spending is generated by controlling the effects of household income and household size. This is to evaluate the importance of mall situational dimensions and consumer decision-making styles on households spending behavior. Thus, the independent variables are entered in two stages. The first block of independent variables, treated as moderating variables, are household income and household size. The second block of independent variables is the situational factors and the consumer decision-making styles that are significant in the Multiple Regression Analysis.

A total of eleven models are generated – 10 for specific spending categories namely, grocery, food outlets, entertainment, department stores, specialty stores, hardware, appliance stores, pharmacy, bookstores and other services and one for aggregate or spending. Models generated that predict spending in specialty store, appliance store and pharmacy have income only as a predictor. Models that predict spending in department store and other services have two predictors, namely, income and fashion-conscious decision style. Spending in bookstore is predicted by income and recreation-conscious decision style. Spending in hardware is predicted by income and brand-conscious decision style. Spending for entertainment have income, fashion-conscious decision style and recreation-conscious decision style as predictors. Spending for food is predicted by income, household size and physical surrounding situational dimension. Spending for grocery is predicted by income, household size and confused by over-choice decision-making style. The aggregate or total spending by households have income, household size and task definition situational dimension as predictors.

In all the models generated, household income is the common and consistent predictor for household spending behavior. The specific models generated are the following:

Model for Household Spending Behavior on Grocery. The model generated for spending in grocery has three predictors namely: household income, household size and confused by over-choice decision style. As indicated by the coefficient of determination (R^2= .191) in Table 20, the model explained 19% of the variance in household's spending for grocery.

Table 20. Model Summary for Household Spending Behavior in Grocery

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.409[a]	.167	.163	3836.55570	.167	41.338	2	412	.000
2	.437[b]	.191	.181	3795.43920	.024	3.992	3	409	.008

a. Predictors: (Constant), household size, household income
b. Predictors: (Constant), household size, household income, CDM7 average, situation4average, CDM8 average

The ANOVA results corresponding the model is significant (F= 19.29; p<.05) which indicates that the 19 percent variance explained by the model is a statistically significant variance.

Table 21. ANOVA Table for Household Spending Behavior in Grocery

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.217E9	2	6.085E8	41.338	.000[a]
	Residual	6.064E9	412	14719159.650		
	Total	7.281E9	414			
2	Regression	1.389E9	5	2.779E8	19.290	.000[b]
	Residual	5.892E9	409	14405358.728		
	Total	7.281E9	414			

a. Predictors: (Constant), household size, household income
b. Predictors: (Constant), household size, household income, CDM7 average, situation4average, CDM8 average
c. Dependent Variable: total spending for grocery

Table 22 shows that household income (B=.048; p<05), household size (B=398.88; p<.05) and confused by over-choice decision style (B=-830.86, p<.05) are the significant predictors of households spending in grocery. Looking at the standardized coefficients (supported by the t-values), household income (β=.32; t=6.91) is the predictor with the most influence in household's spending in grocery, followed by household size (β=.19 ; t=4.19) and by confused by over-choice (β= -.14; t= - 2.95).

Table 22. Coefficients of the Variables that Explain Household Spending Behavior in Grocery

		Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	T	Sig.	Tolerance	VIF
1	(Constant)	1887.506	522.414		3.613	.000		
	household income	.054	.007	.355	7.877	.000	.996	1.004
	household size	388.199	95.923	.182	4.047	.000	.996	1.004
	(Constant)	1577.458	1419.371		1.111	.267		
	household income	.048	.007	.318	6.905	.000	.930	1.075
	household size	398.876	95.225	.187	4.189	.000	.989	1.011
	situation4average	590.971	324.240	.085	1.823	.069	.911	1.098
	CDM7 average	-830.855	282.167	-.137	-2.945	.003	.913	1.095
	CDM8 average	310.394	295.755	.050	1.049	.295	.867	1.153

a. Dependent Variable: total spending for grocery

Based on the unstandardized coefficients, the equation representing the model for household spending in grocery is specified as:

*Ave Spending for Grocery = .048*household income + 398.88* household size - .830.86*CDM7*

Where: CDM7 = confused by over-choice decision style

The model specified above satisfy the non-collinearity requirements given the very high tolerance values of the variables that range between 0.91 to 0.99. This means that household income, household size and confused by over-choice decision style are distinct from each other and are not redundant.

It further implies that higher income households incur higher spending in. Similarly, bigger household size spends higher in grocery and smaller household size spends lower in grocery. Although, bigger household sizes tend to spend higher in grocery, they can only spend as much as their income would allow.

The negative association between household spending in grocery and the confused by over-choice decision style implies that the presence of many substitute goods can create information overload that confuse buyers thus, affecting spending negatively. This happens when a consumer who is not settled which to buy, postpones buying to give time for more evaluation before making the final purchase decision. It is worse when the consumer decides not to proceed anymore to any purchase decision.

This particular finding can guide the mall management to consider the variety of grocery items. Household income can be used as basis to identify the type of grocery items mostly purchased by middle income households since a greater proportion of the households are in the middle class. The number of substitutes must not be too many to create consumer confusion.

Using the generated model, average spending in grocery of a household whose average income is 27,919.98Php with an average household size of 4.8 and that on the average, the household is moderately confused by over-choice (3.01) is predicted to be:

Ave. spending in grocery = *.048 (27,919.98) + 398.88 (4.8) - 830.86*

(3.01)

= 1,340.16 + 1,914.62 – 2,500.89

= Php753.89

The predicted average spending for grocery did not approach the actual average spending at Php5, 245.07, it can therefore be implied that although the model generated is statistically significant, it cannot have full practical significance (Hair, J. et.al, 2010 ; Janssens, et.al. 2008). This result can be attributed to the possibility that there are other predictors not captured by this model or household spending behavior for grocery has changed overtime that income, household size and confused by over-choice decision style are, at this point in time, have only slight influence on household spending behavior. Thus, the R^2 of .191. This result however, is better than the findings of Bellman, et.al, (1999) in the study "Predictors of Online Buying Behavior" that say that demographics predicted only 1.2% of the variance in online buying.

Model for Household Spending Behavior in Food Outlets. The model for spending in food outlets predicts 9.8% (R^2=.098) of the variance in spending in food outlets as shown 88 ole 23. The predictors that are significant are household income, household size and physical surrounding situational dimension.

Table 23. Model Summary table for Household Spending Behavior in Food Outlets

						Change Statistics			
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**R Square Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.275[a]	.076	.071	2542.01659	.076	16.911	2	413	.000
2	.314[b]	.098	.087	2519.87671	.023	3.430	3	410	.017

a. Predictors: (Constant), household income, household size

b. Predictors: (Constant), household income, household size, CDM7 average, situation1 average, situation4average

The ANOVA results in Table 24 confirmed the statistical significance of the model (F =11.88; p< .05) which imply that the variance in household spending in food outlets of 9.8% is a statistically significant amount of variance.

Table 24. ANOVA Table for Household Spending Behavior in Food Outlets

ANOVA[c]					
Model	**Sum of Squares**	**Df**	**Mean Square**	**F**	**Sig.**
1. Regression	2.186E8	2	1.093E8	16.911	.000[a]
Residual	2.669E9	413	6461848.358		
Total	**2.887E9**	**415**			
2. Regression	2.839E8	5	56777593.599	8.942	.000[b]
Residual	2.603E9	410	6349778.614		
Total	**2.887E9**	**415**			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM7 average, situation1 average, situation4average
c. Dependent Variable: total spending for food

The significant predictors of the spending in food outlets are household size (B = 2588.66; p<.05), household income (B = .015; p<.05) and physical surrounding (SIT1) (B=-483.43; p<.05) as Table 25 shows.

Based on the standardized coefficients (supported by the t-values), household size (β=.193; t=4.08) is the predictors with the strongest influence on spending in food outlets. This is followed by household income (β=.161; t=3.34) and physical surrounding (β.124; t=-2.50).

The collinearity diagnostics parameters, particularly the tolerance values that range from 0.88 to 0.98 indicate that the variables in this model are free from collinearity issue.

Table 25. Coefficients of the Variables that Explain Household Spending Behavior in Food Outlets

Coefficients[a]							
	Unstandardized Coefficients		**Standardized Coefficients**			**Collinearity Statistics**	
Model	**B**	**Std. Error**	**Beta**	**t**	**p-value**	**Tolerance**	**VIF**
(Constant)	251.476	345.759		.727	.467		
household size	268.626	63.487	.201	4.231	.000	.996	1.004
household income	.017	.005	.177	3.728	.000	.996	1.004
(Constant)	1939.888	1042.543		1.861	.063		
household size	258.661	63.342	.193	4.084	.000	.984	1.017
household income	.015	.005	.161	3.344	.001	.945	1.058
situation1 average	-483.428	193.797	-.124	-2.495	.013	.883	1.133
situation4average	379.388	222.365	.087	1.706	.089	.853	1.172
CDM7 average	-338.073	180.398	-.089	-1.874	.062	.981	1.019

a. Dependent Variable: total spending for food

It is worth noting that the spending in food outlets is negatively associated to the physical surrounding of the malls. This maybe because mall shoppers are engrossed by the variety of stores and merchandise that make shopping more fun leaving lesser time to sit down and eat in food outlets.

The degree of influence of demographic factors household size and household income in this model imply that these factors take precedence in households decision how much to buy which, is logically correct. Spending is always tied to how much can be spent and how many will consume.

However, the proportion of variance (9.8 percent) explained only a small proportion of the total variance in household spending in food outlets. Despite the statistical significance of the model, it does not seem to have a practical significance in predicting household spending in food outlets (Hair, et.al., 2010). This result can be attributed to the failure of the model to capture other predictors of household spending in the mall's food outlets which, might have evolveld through time. Nevertheless, this finding is relatively better than the model that predicted online shopping behavior by Bellman (1999) where demographic factors including income explained only 1.2 percent of the variance.

Model for Household Spending Behavior on Entertainment. Model predicting spending in entertainment have three predictors namely, household income, fashion conscious decision style

(CDM3) and recreational conscious decision style (CDM4). Table 26 shows that this model predicts 10.4 percent (R^2=.104) of the variance in household spending on entertainment.

Table 26. Model Summary Table for Spending Behavior on Entertainment

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.177[a]	.031	.027	846.15459	.031	6.691	2	413	.001
2	.322[b]	.104	.095	815.95947	.072	16.566	2	411	.000

a. Predictors: (Constant), household size, household income
b. Predictors: (Constant), household size, household income, CDM3 average, CDM4 average

The corresponding ANOVA results for the model shown in Table 27 indicate that the model significantly (F =11.88; p< .05) explains the variance in household spending on entertainment. Thus, it can be said that the variance 10.4 percent that is explained by the model is a significant amount of variance.

Table 27. ANOVA Table for Household Spending on Entertainment

ANOVA[c]

Model	Sum of Squares	Df	Mean Square	F	p-value
Regression	9581640.166	2	4790820.083	6.691	.001[a]
Residual	2.957E8	413	715977.584		
Total	**3.053E8**	**415**			
Regression	31640749.227	4	7910187.307	11.881	.000[b]
Residual	2.736E8	411	665789.862		
Total	**3.053E8**	**415**			

a. Predictors: (Constant), household size, household income
b. Predictors: (Constant), household size, household income, CDM3 average, CDM4 average
c. Dependent Variable: total spending for entertainment

The coefficients of the significant variables in Table 28 indicate that household income (B=.004; p<.05), "fashion conscious" (CDM3) (B=204.72; p<.05) and "recreational conscious" (CDM4) (B=161.01; p<.05) positively influence spending on entertainment.

Based on the standardized coefficients and the t-values "fashion conscious" (CDM3) (β=.21; t=4.03) has the most influence in predicting spending on entertainment, followed by household income (β=.119; t=2.48) and "recreational conscious" (CDM4) (β=.117; t=2.26).

Table 28. Coefficients of the Variables that Explain Household Spending Behavior on Entertainment

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	p-value	Tolerance	VIF
(Constant)	430.522	115.092		3.741	.000		
household income	.005	.002	.174	3.593	.000	.996	1.004
household size	9.985	21.133	.023	.472	.637	.996	1.004
(Constant)	-644.795	227.405		-2.835	.005		
household income	.004	.001	.119	2.484	.013	.947	1.056
household size	11.166	20.589	.026	.542	.588	.976	1.024
CDM3 average	204.719	50.772	.206	4.032	.000	.834	1.199
CDM4 average	161.011	71.225	.117	2.261	.024	.807	1.239

a. Dependent Variable: total spending for entertainment

The collinearity diagnostics parameters that range from 0.81 to 0.95 imply that fashion conscious decision style; household income and recreational conscious decision style have no collinearity problems.

The equation that predicts average spending on entertainment can be specified as:

*Ave. spending on entertainment = -644.80 + .004*household income + 204.72*CDM3 + 161.01*CDM 4*

where: CDM3 = fashion conscious decision style

CDM4 = recreational conscious decision style

Using the model, the average spending on entertainment of a household with average income of Php27,919.98 and who is, on the average, moderately fashion conscious (3.09) and moderately entertainment conscious (3.01) would spend an amount of:

Ave. spending on entertainment = *- 44.80 + .004(27,919.98) + 204.72 (3.09) + 161.03(3.01)*
= *- 644.80 + 111.68 + 632.58 + 484.64*
= *Php 584.10*

The predicted amount approaches the observed mean spending for entertainment (Php628.95);thus, the model has practical significance in predicting household spending on entertainment. The three variables: income, fashion conscious, and recreational conscious intuitively suggest rationality of these predictors.

Model for Household Spending Behavior in Department Stores. The model that predict spending by households in department stores have with two significant predictors namely, household income and fashion conscious decision style. This model of best fit predicts 22.7 percent (R^2= .227) of the variance in household's spending in department stores and boutiques as shown in Table 29.

Table 29 Model Summary Table for Spending Behavior in Department Stores

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Est.	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.447[a]	.200	.196	2635.46397	.200	51.481	2	413	.000
2	.476[b]	.227	.217	2599.70068	.027	4.814	3	410	.003

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM5 average, CDM3 average, situation4average

Table 30 shows the results of the ANOVA corresponding the model that predicts spending in entertainment. It indicates that model is statistically significant and is therefore meaningful in predicting spending in department store (F=24.05;p<.05). It is therefore implied that the amount of variance (22.7 percent) that is explained by the model is a significant amount of variance.

Table 30. ANOVA Table for Household Spending on Entertainment

ANOVA[c]

Model	Sum of Squares	Df	Mean Square	F	p-value
1. Regression	7.151E8	2	3.576E8	51.481	.000[a]
Residual	2.869E9	413	6945670.348		
Total	**3.584E9**	**415**			
2. Regression	8.127E8	5	1.625E8	24.051	.000[b]
Residual	2.771E9	410	6758443.612		
Total	**3.584E9**	**415**			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM5 average, CDM3 average, situation4average
c. Dependent Variable: total spending for dept. store and boutique

Table 31 reflects household income (B=.043; p<05) and fashion conscious decision style (B=501.43, p<.05) are the significant predictors of spending in entertainment. Based on the standardized coefficients and the t values, household income (β=.41; t=9.0) has the greater influence than fashion conscious decision style (β=.15; t= 3.22) in predicting household spending in department stores. Based on the high tolerance values at .921 and .90 for income and fashion-conscious decision style, the model generated satisfies the requirement that there must be collinearity issue between the two variables.

Table 31. Coefficients of the Variables that Explain Household Spending Behavior in Department Stores and Boutiques

Coefficients[a]							
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	t	p-value	Tolerance	VIF
1 (Constant)	870.128	358.469		2.427	.016		
household size	-90.205	65.821	-.060	-1.370	.171	.996	1.004
Household income	.047	.005	.446	10.118	.000	.996	1.004
2 (Constant)	-50.930	1070.137		-.048	.962		
household size	-62.290	65.558	-.042	-.950	.343	.977	1.023
household income	.043	.005	.407	9.003	.000	.921	1.086
situation4average	223.765	229.388	.046	.975	.330	.854	1.172
CDM3 average	501.426	155.756	.147	3.219	.001	.899	1.112
CDM5 average	-366.724	233.808	-.071	-1.568	.118	.918	1.089

a. Dependent Variable: total spending for dept. store and boutique

The unstandardized regression coefficients of this model results to the equation specified as:

*Ave. spending in dept. store = .043*household income+ 501.43*CDM3*

where: CDM 3 = fashion conscious decision style

Implementing the equation, the spending of a household with average income (Php27, 919.98 and an average rating in fashion conscious decision style (3.01) is:

Ave. spending in dept store = .043(27,919.98) + 501.43(3.01)

= 1,200.56 +1,509.30

= Php2, 709.86

The estimated amount of spending in department store which is not very far the observed mean spending in department store confirms the statistical significance of the model. Thus a household who has the economic resources and fashion inclined is having likely spent high in department stores.

Model for Household Spending Behavior in Specialty Stores. It is shown in Table 32 that the model of best-fit model can predict 11.4 percent (R^2=.114) of the variance in households spending in specialty stores. The model has only one predictor – household income.

Table 32. Model Summary table for Household Spending Behavior in Specialty Stores

Model Summary									
						Change Statistics			
Model	R	R Square	Adjusted R Square	Std. Error of the Est.	R Square Change	F Change	df1	df2	Sig. F Change
1	.313[a]	.098	.094	1685.27869	.098	22.410	2	413	.000
2	.337[b]	.114	.105	1674.65894	.016	3.627	2	411	.027

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, situation4average, CDM4 average

The ANOVA results in Table 33 shows that the model is statistically significant (F =13.16; p< .05) which, implies that the variance in household spending in specialty stores explained by household income is a statistically significant amount of variance.

Table 33. ANOVA Table for Household Spending Behavior in Specialty Stores

ANOVA[c]					
Model	Sum of Squares	df	Mean Square	F	p-value
1. Regression	1.273E8	2	63648374.434	22.410	.000[a]
Residual	1.173E9	413	2840164.252		
Total	1.300E9	415			
2. Regression	1.476E8	4	36910563.100	13.161	.000[b]
Residual	1.153E9	411	2804482.561		
Total	1.300E9	415			

ANOVA[c]					
Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**p-value**
1. Regression	1.273E8	2	63648374.434	22.410	.000[a]
Residual	1.173E9	413	2840164.252		
Total	1.300E9	415			
2. Regression	1.476E8	4	36910563.100	13.161	.000[b]
Residual	1.153E9	411	2804482.561		
Total	1.300E9	415			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, situation4average, CDM4 average
c. Dependent Variable: total spending for specialty stores

Table 34 shows that household income (B = .018; p<.05) is a significant predictor of spending in specialty stores which, implies that no other variable explains spending in specialty stores.

Table 34. Coefficients of the Variables that Explain Household Spending Behavior in Specialty Stores

Coefficients							
	Unstandardized Coefficients		**Standardized Coefficients**			**Collinearity Statistics**	
Model	**B**	**Std. Error**	**Beta**	**t**	**p-value**	**Tolerance**	**VIF**
1 (Constant)	106.320	229.227		.464	.643		
household size	26.415	42.090	.029	.628	.531	.996	1.004
household income	.020	.003	.310	6.615	.000	.996	1.004
2 (Constant)	-1253.122	553.769		-2.263	.024		
household size	24.748	42.143	.028	.587	.557	.981	1.019
household income	.018	.003	.278	5.787	.000	.935	1.070
situation4average	268.861	148.521	.091	1.810	.071	.845	1.184
CDM4 average	179.568	143.989	.063	1.247	.213	.832	1.202

a. Dependent Variable: total spending for specialty stores

Implementing the model to predict spending in specialty stores by a household with average income (Php27, 919.98) results to:

Ave. spending in specialty stores = *-1,253.12 + .018*household income*

= *-1,253.12 +.02(27,919.98)*

= *-1,253.12 + 558.40*

= *- Php694.72*

The negative value obtained using the equation does not approximate the observed average spending of households in specialty stores. Despite statistical significance of the model, it can be implied that the model does not have practical significance. It further implies that income is not the only predictor for spending in specialty stores. It can also be said that the amount of variance explained by income, though statistically significant, is a small proportion of the total variance. This result can be paralleled to the findings of the study on online shopping behavior which said that demographics alone barely predict spending behavior (Bellman, Lohse, & Johnson, 1999).

Model for Household Spending Behavior in Hardware. As shown in Table 35, the model of best fit that predicts spending in hardware have two predictors namely: household income and brand conscious decision-making style (CDM2). The model predicts a variance of around 3.9 percent (R^2=.039) of the total variance in household spending in hardware.

Table 35. Model Summary Table for Spending Behavior in Hardware

Model Summary									
						Change Statistics			
Model	R	R Square	Adjusted R Square	Std. Error of the Est.	R Square Change	F Change	df1	df2	Sig. F Change
1	.155[a]	.024	.019	1473.78141	.024	5.065	2	413	.007
2	.197[b]	.039	.032	1464.29807	.015	6.367	1	412	.012

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM2 average

According to the ANOVA results in Table 36, the model derived is statistically significant (F =5.54; p< .05) to explain the variance in household spending in hardware.

Table 36. ANOVA Table for Household Spending in Hardware

ANOVA[c]					
Model	Sum of Squares	Df	Mean Square	F	p-value
1. Regression	22002936.953	2	11001468.477	5.065	.007[a]
Residual	8.970E8	413	2172031.649		
Total	**9.191E8**	**415**			
2. Regression	35654445.630	3	11884815.210	5.543	.001[b]
Residual	8.834E8	412	2144168.841		
Total	**9.191E8**	**415**			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM2 average
c. Dependent Variable: total spending for hardware

Based on the coefficients of the variables produced in Table 37, it can be implied that household income (B=.007; p<.05) and brand conscious decision-making style (B=257.71; p<.05) are statistically significant predictors. Both household income and brand conscious decision style positively influence spending in hardware. The collinearity diagnostics parameters particularly the very high Tolerance values for household income and brand conscious decision style at 0.99 each imply that the model is free from collinearity issues. However, considering the small proportion of variance (3.9 percent) explained by household income and brand conscious decision style, it can be said that the supposed statistically significant model does not have practical significance (Hair, et.al. 2010 ; Janssens et.al., 2008). This finding is similar to the observation by Bellman (1999) where demographic factors barely influence shopping behavior.

Therefore, the model generated cannot be implemented with confidence in predicting household spending in hardware, until other significant predictors are identified.

Table 37. Coefficients of the Variables that Explain Household Spending Behavior in Hardware

Coefficients[a]							
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	T	p-value	Tolerance	VIF
1 (Constant)	234.080	200.460		1.168	.244		
household size	28.547	36.808	.038	.776	.438	.996	1.004
household income	.008	.003	.148	3.035	.003	.996	1.004
2 (Constant)	-517.244	358.232		-1.444	.150		
household size	29.323	36.572	.039	.802	.423	.996	1.004
household income	.007	.003	.138	2.834	.005	.989	1.011
CDM2 average	257.712	102.135	.122	2.523	.012	.993	1.007

a. Dependent Variable: total spending for hardware

Model for Household Spending Behavior in Appliance Stores. The coefficient of determination reflected in Table 38 indicates that the generated model of best fit have household income as the only predictor. This model explains 6.3 percent (R^2= .063) of the proportion of variance in household's spending in appliance stores.

Table 38. Model Summary Table for Spending Behavior in Appliance Stores

Model Summary									
					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Est.	R Square Change	F Change	df1	df2	Sig. F Change
1	.205[a]	.042	.037	1626.81278	.042	9.016	2	413	.000
2	.250[b]	.063	.054	1612.89699	.021	4.579	2	411	.011

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, situation4average, CDM4 average

While the proportion of variance explained by the model is only small (6.3 percent), the ANOVA results in Table 39 indicates that the model derived is statistically significant (F =6.88; p< .05) to explain the variance in household spending in appliance stores. This implies that variance of 6.3 percent is a statistically significant amount of variance.

Table 39. ANOVA Table for Household Spending in Appliance Stores

ANOVA[c]						
Model		Sum of Squares	df	Mean Square	F	p-value
1	Regression	47721395.041	2	23860697.520	9.016	.000[a]
	Residual	1.093E9	413	2646519.836		
	Total	1.141E9	415			
2	Regression	71543605.094	4	17885901.274	6.875	.000[b]
	Residual	1.069E9	411	2601436.697		
	Total	1.141E9	415			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, situation4average, CDM4 average
c. Dependent Variable: total spending for appliances

Table 40 shows that household income (B=.009; p<.05) is the sole significant predictor and positively influence spending of households in mall's appliance stores.Intuitively, the model derived is logical since most of the appliances are luxury goods. Income is expected to be the primary predictor for this type of good. However, the proportion of the variance (6.3%) that is explained by income in the model generated is small relative to the proportion of the variance that is explained by the model. This results render the model of no practical significance (2010). It can be said that this model failed to capture other variables which could have improved its predictability. According to Jappelli and Pistaferri (2010), consumers do not usually revise their consumption in response to income change.

This particular model is similar to the model generated for spending in specialty store where income is the only predictor. Both models produce small coefficients of determination which render the models of no practical significance.

Table 40. Coefficients of the Variables that Explain Household Spending Behavior in Appliance Stores

Coefficients[a]							
	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model	B	Std. Error	Beta	t	p-value	Tolerance	VIF
1 (Constant)	182.710	221.275		.826	.409		
household size	52.119	40.630	.062	1.283	.200	.996	1.004
household income	.011	.003	.191	3.963	.000	.996	1.004
2 (Constant)	-1267.705	533.346		-2.377	.018		
household size	47.999	40.589	.057	1.183	.238	.981	1.019
household income	.009	.003	.154	3.118	.002	.935	1.070
situation4average	237.242	143.043	.086	1.659	.098	.845	1.184
CDM4 average	250.068	138.679	.094	1.803	.072	.832	1.202

a. Dependent Variable: total spending for appliances

Model for Household Spending Behavior in Pharmacy. As shown in Table 41, the model generated that predicts spending in pharmacy has only one predictor – income. This model predict 8 percent (R^2=.080) only of the variance spending in pharmacy.

Table 41. Model Summary Table for Spending Behavior in Pharmacy

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Est.	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.276[a]	.076	.071	2546.31327	.076	16.961	2	413	.000
2	.282[b]	.080	.073	2544.35114	.004	1.637	1	412	.201

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM4 average

The ANOVA results in Table 42 indicates a statistically significant model (F =11.87; p< .05) that predicts the variance in spending in pharmacy implying that the amount of variance (8 percent) is a significant variance.

Table 42. ANOVA Table for Household Spending in Pharmacy

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	p-value
1	Regression	2.199E8	2	1.100E8	16.961	.000[a]
	Residual	2.678E9	413	6483711.253		
	Total	2.898E9	415			
2	Regression	2.305E8	3	76847142.085	11.871	.000[b]
	Residual	2.667E9	412	6473722.718		
	Total	2.898E9	415			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM4 average
c. Dependent Variable: total spending for pharmacy

Table 43 shows that the model's predictor household income (B=.024; p<.05) is significant and positively influence spending in pharmacy. Although the model generated is statistically significant, the small proportion of variance it can predict makes the model not practically significant (Hair, et.al., 2010) thus, it cannot be relied upon to predict a household's spending in pharmacy.

Table 43. Coefficients of the Variables that Explain Household Spending Behavior in Pharmacy

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
		B	Std. Error	Beta	T	p-value	Tolerance	VIF
1	(Constant)	631.001	346.343		1.822	.069		
	household size	59.205	63.594	.044	.931	.352	.996	1.004
	household income	.026	.005	.269	5.683	.000	.996	1.004
2	(Constant)	-88.334	660.163		-.134	.894		
	household size	51.607	63.822	.038	.809	.419	.988	1.012
	household income	.024	.005	.256	5.286	.000	.951	1.051
	CDM4 average	262.723	205.325	.062	1.280	.201	.945	1.059

a. Dependent Variable: total spending for pharmacy

Model for Household Spending Behavior in Bookstore. The model summary in Table 44 shows that the model of best fit can predict 7.2 percent (R^2= .072) of the variance in household's spending in the bookstore. This model consists of two predictors namely: household income and recreational conscious decision-making styles (CDM4).

Table 44. Model Summary Table for Spending Bookstore

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Est.	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.211[a]	.045	.040	1198.10608	.045	9.609	2	412	.000
2	.268[b]	.072	.063	1183.90445	.027	5.972	2	410	.003

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM8 average, CDM4 average

The ANOVA results in Table 45 shows that the model is significant to explain the variance in household spending in bookstore (F= 7.91; p<.05). This implies that 7.2 percent variance explained by the model is a significant amount of variance.

Table 45. ANOVA Table for Household Spending in Bookstore

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	p-value
1	Regression	27586772.591	2	13793386.295	9.609	.000[a]
	Residual	5.914E8	412	1435458.179		
	Total	6.190E8	414			
2	Regression	44327350.400	4	11081837.600	7.906	.000[b]
	Residual	5.747E8	410	1401629.737		
	Total	6.190E8	414			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM8 average, CDM4 average
c. Dependent Variable: total spending for bookstore and office supplies

The results for the model in Table 46, imply that household spending in bookstore is significantly predicted by household income (B=.007; p<05) andrecreational conscious decision-making style (B=205.079; p<.05).

Despite the statistical significance of the model, the proportion of the variance of 7.2 percent is small to warrant practical meaning (Hair, et.al., 2010). This result can be paralleled to the findings of Tullio (2010) and Bellman (1999) which established that consumption is not fully responsive to changes in income and that there might be other predictors which are not known in the model generated.The collinearity diagnostics parameters, particularly the very high Tolerance values for household income (.95) and recreational conscious (.83) indicate that the model for household spending in bookstore is free of collinearity issues.

Table 46. Coefficients of the Variables that Explain Household Spending in Bookstore

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	T	p-value	Tolerance	VIF
1	(Constant)	411.632	163.143		2.523	.012		
	household size	30.114	29.956	.049	1.005	.315	.996	1.004
	household income	.009	.002	.202	4.197	.000	.996	1.004
2	(Constant)	-674.245	353.148		-1.909	.057		
	household size	20.606	29.744	.033	.693	.489	.987	1.014
	household income	.007	.002	.167	3.420	.001	.948	1.055
	CDM4 average	205.079	102.236	.105	2.006	.046	.827	1.210
	CDM8 average	178.638	92.864	.099	1.924	.055	.856	1.169

a. Dependent Variable: total spending for bookstore and office supplies

Model for Household Spending Behavior on Other Services. Table 47 shows that the model generated that predicts spending on other services like salon, dental and optical services in the mall explains 8.7 percent (R^2= .087) of the variance in household spending. This model has two predictors namely: household income and fashion conscious decision style (CDM3).

Table 47. Model Summary Table for Spending in Other Services

Model Summary

					Change Statistics				
Model	R	R Square	Adjusted R Square	Std. Error of the Est.	R Square Change	F Change	df1	df2	Sig. F Change
1	.181[a]	.033	.028	1237.51447	.033	7.003	2	413	.001
2	.295[b]	.087	.078	1205.40908	.054	12.147	2	411	.000

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM3 average, CDM4 average

The ANOVA results in Table 48, indicates that the model is statistically significant (F= 9.76; p<.05) and the variance in household spending on other services that is explained by the model is a statistically significant variance.

Table 48. ANOVA Table for Household Spending on Other Services

ANOVA[c]						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**p-value**
1	Regression	21449214.610	2	10724607.305	7.003	.001[a]
	Residual	6.325E8	413	1531442.060		
	Total	**6.539E8**	**415**			
2	Regression	56747242.100	4	14186810.525	9.764	.000[b]
	Residual	5.972E8	411	1453011.055		
	Total	**6.539E8**	**415**			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM3 average, CDM4 average
c. Dependent Variable: total spending for other services

The coefficients of the variables in Table 49 indicates that income (B=.01; p<05) and fashion conscious decision style (CDM3) (B= 278.56; p<.05) are the significant predictors of household spending on other services.

The model produced is supposed to have no collinearity issues as evidenced by the tolerance values of .95 for household income and .83 for fashion conscious decision style. However, the very small proportion of variance (8.7 percent) that the model explained makes it practically insignificant (Hair, et.al., 2010).

Table 49. Coefficients of the Variables that Explain Household Spending on Other Services

Coefficients[a]								
		Unstandardized Coefficients		**Standardized Coefficients**			**Collinearity Statistics**	
Model		**B**	**Std. Error**	**Beta**	**T**	**p-value**	**Tolerance**	**VIF**
1	(Constant)	269.646	168.324		1.602	.110		
	household size	24.745	30.907	.039	.801	.424	.996	1.004
	household income	.008	.002	.175	3.601	.000	.996	1.004
2	(Constant)	-1048.855	335.943		-3.122	.002		
	household size	27.879	30.416	.044	.917	.360	.976	1.024
	household income	.006	.002	.129	2.662	.008	.947	1.056
	CDM3 average	278.557	75.005	.192	3.714	.000	.834	1.199
	CDM4 average	166.249	105.220	.083	1.580	.115	.807	1.239

a. Dependent Variable: total spending for other services

Model for Aggregate Household Spending. The generated model predicts household's total spending for the various categories of goods and services that are offered in malls. The model summary in Table 50 indicates that aggregate spending has three predictors namely: household income, household size and task definition situational dimension (SIT4). Task definition refers to the purpose why households go to the mall and the activities done in the mall, such as making major purchases, buying immediate needs, buying clothing and going to the mall for entertainment. The model generated explains 31 percent (R^2=.306) of the variance in households aggregate spending.

Table 50. Model Summary Table for Household Aggregate Spending

Model Summary									
						Change Statistics			
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Est.**	**R Square Change**	**F Change**	**df1**	**df2**	**Sig. F Change**
1	.532[a]	.283	.279	9542.77669	.283	81.473	2	413	.000
2	.553[b]	.306	.297	9425.17476	.023	4.457	3	410	.004

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM5 average, situation4average, CDM4 average

Based on the ANOVA results in Table 51, the model significantly explains the variance in aggregate spending (F= 36.08; p<.05). This indicates that the 31 percent variance explained by the model is a significant proportion of the total variance.

Table 51. ANOVA Table for Household Aggregate Spending

Model		ANOVA[c] Sum of Squares	df	Mean Square	F	p-value
1	Regression	1.484E10	2	7.419E9	81.473	.000[a]
	Residual	3.761E10	413	91064587.002		
	Total	**5.245E10**	**415**			
2	Regression	1.603E10	5	3.205E9	36.082	.000[b]
	Residual	3.642E10	410	88833919.310		
	Total	**5.245E10**	**415**			

a. Predictors: (Constant), household income, household size
b. Predictors: (Constant), household income, household size, CDM5 average, situation4average, CDM4 average
c. Dependent Variable: total household spending

The coefficients of the predictors in Table 52 indicates that household income (B=.186; p<05), household size (B=818.77; p<.05) and task definition situational dimension (B=1986.89;p<.05) are significant predictors of aggregate spending. On the other hand, price conscious decision making style and recreational conscious decision style do not significantly influence households aggregate spending.

Among the three predictors, household income (β=.46; t=10.58) is the variable with strongest influence based on the values of the standardized coefficients (supported t-values) It is followed by household size (β=.14; t=3.44) and task definition (β=.11; t=2.34).

Using the unstandardized regression coefficients, the equation derive for aggregate spending can be specified as:

*Average Aggregate Spending = .186*household income + 818.77*household size + 1,986.89*situation4*

Where: situation4 = task definition

Using the equation to a householdwith averageincome of Php27, 919.98, with average household size of 4.8 and is neutral to task definition (3.29), the aggregate spending is:

Aggregate HH Spending = .186(27,919.98)+818.77(4.8)+ 1,986.89(3.29)

= 5,193.12+3,930.10+6,536.87

= Php15, 660.09

The result of the calculation implies that a household with an income of 27,919.98, with household size of 4.8 and is neutral on task definition would likely aggregate spend a total of Php15, 660.09 in the mall.

The much higher variance (31%) that this model has explained compared to the variance explained by the models for disaggregated spending implies that demographics, situational factors and consumer decision styles are better predictors of spending at the aggregate level than when spending is disaggregated. This explains that the decision how much to spend for the different categories of goods is done interdependently. This means that no spending decision for a particular expenditure category is made without considering its implications on other household expenditures.

It also implies household incomes, household size and the different tasks to be done in the mall are considered in appropriating household's resources among different expenditure categories. Households with high income and big household size are expected to have high

aggregate spending in the mall while households with low income and small family size are likely to have low aggregate spending. Moreover, households with multiple shopping tasks to do will likely spend more during mall shopping than households with only one task to do in the mall.

Collinearity diagnostics parameters particularly the very high Tolerance values that ranged from .82 to .97 imply that the model for aggregate spending is free of collinearity issues. The results further imply that household income, household size and task definition are distinct from each other and are therefore non redundant predictors for aggregate spending.

Table 52. Coefficients of the Variables that Explain Household Aggregate Spending

Coefficients[a]								
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	p-value	Tolerance	VIF
1	(Constant)	5263.117	1297.985		4.055	.000		
	household size	799.931	238.331	.140	3.356	.001	.996	1.004
	household income	.205	.017	.505	12.091	.000	.996	1.004
2	(Constant)	-629.455	3908.919		-.161	.872		
	household size	818.774	238.356	.143	3.435	.001	.972	1.029
	household income	.186	.018	.458	10.579	.000	.904	1.106
	situation4average	1986.894	849.372	.106	2.339	.020	.818	1.222
	CDM4 average	1542.741	817.970	.086	1.886	.060	.817	1.224
	CDM5 average	-1283.857	852.372	-.065	-1.506	.133	.908	1.101

a. Dependent Variable: total house
No table of contents entries found.ehold spending

CONCLUSION

Based on the findings presented above, the researcher concluded that The average household size (4.8) of the respondents which membership is inclusive of persons not necessarily related by blood but share in common arrangement, particularly in food, reflects that the nuclear family (parents and children) size is likely small. The average household size, as expected, was a predictor of household spending in food outlets.There is income homogeneity among the major proportion of household mall shoppers as 61% of them come from the middle class of the society which indicates that the major proportion of household mall shoppers are better off economically than the national average family. These are households whose incomes range from Php15,000Php to Php50,000. Household spending is according to proper priorities. The largest part of spending in malls was on grocery (35%), followed by spending in food outlets (14%) while the smallest part of spending was on entertainment (4%).

Multiple mall shopping situations are within household's shopping consciousness. Although all aspects are recognized by mall shoppers, it is the physical and social environment that is highly perceived by them. Time and distance did not deter households from their mall shopping activities. Households therefore were able to give importance to necessity goods in allocating resources among the various expenditure items they buy from malls. It further implies that household spending in malls are not born out of impulse, but rather planned. Given the ratio of aggregate spending in malls to income (54%) imply that malls have calved themselves to the spending pattern of the households.High-quality consciousness and price consciousness are the dominant decision-making styles existing among households. The other six (6) decision styles were also evident but at moderate levels.

All models generated through hierarchical regression were statistically significant as indicated by their F-values (at $p<.05$). However, their corresponding coefficients of determination (R^2) indicated that not all models generated have practical significance. The model which satisfied both characteristics and can therefore be meaningful to be used for predicting spending behavior

was the model for aggregate spending. Household income was the common predictor for all models generated in this study. Moreover, income was consistently the predictor which has the greatest impact in the variance explained by the models. Some models have other significant common predictors.

The profile of mall shoppers in terms income, family size and spending levels would minimize the uncertainties of mall management and mall tenants of their prospects about the industry particularly their market. Households' perceptions about mall situational dimensions can provide bases for the mall management and mall tenants alike of the aspects internal to the mall which households are mindful and could have effects on their spending behavior in malls. As rated by households, the physical surrounding and social surrounding were the two most perceived dimensions by households during mall shopping. Thus, mall management must continue creating physical and social environment that pull shoppers towards the mall.Households' dominant decision styles, which were accordingly quality conscious and price conscious decision styles, must be considered by the industry in the composition of their mall offerings.

The spending models would serve as guide in understanding further the specific factors, particularly those internal to the mall, in the selection of the array of goods, promotion and even expectations and projections of revenue.Since the proportion of spending to income was considerably large (54%). Malls must pick up this as signal to reach as well and provide the same opportunity for goods and services not only to city dwellers but also to the peripheral areas by bringing even just some of the malls main anchors such as grocery, department store and even recreation.

This study opened new research agenda by exploring other significant predictors for household spending behavior in malls. A more focused study can also be derived from this research by digger deeper into predictors or factors that are specific to the main anchor of malls such as supermarket, department stores, and food court.This needs adeeper study that will look into specific situations and decisions styles that are applied to each of the different mall shopping activity;a replication of this study can be done in other regions where malls are comparable with each other that would explore mall shoppers' personalities as a synthesis of decision-making styles and situational dimensions using factor analysis; a longitudinal study that will monitor any change in the spending behavior of households through time;an impact study of mall operations to the different stakeholders and decision makers;a study that quantify the value of shopping malls to the community by evaluating community economic and social benefits associated with malls. This can be used as a related literature in studies on spending behavior and consumer behavior.

This can bridge the gap between theory and practice on consumer behavior in Marketing and spending behavior in Economics.Findings on the importance of income as predictor of spending would not only validate theories and tests hypothesis but will also inculcate values that spending must always be within one's resources to tone down practices of overspending especially among the younger generation – the students.This can add to the body of knowledge in terms of the framework of describing household spending. Local governments can create and support mall entry in their place. Aside from providing households wider choices of goods, the local government increase revenue from consumption tax.

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