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# Intervening Role of Marital Status on Grocery Shopping of Expats: An Exploratory Study 

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#### Abstract

The study examines the grocery shopping behavior of expats. A pre-designed questionnaire was used to collect the primary data (experiences) from the respondents. Data was collected from 110 respondents (expats) residing in and around the Emirates of Sharjah and Dubai of the United Arab Emirates. The collected data was analyzed with the help of statistical tools such as averages, percentages, factor analysis, Student's t-test, Structural Equation model and correlation. The objectives of this study were to know:


- The extent married and single expats differ in their grocery shopping behavior
- Whether the expat grocery shoppers are satisfied with their grocery shopping experience The study revealed the following: A majority of the grocery shoppers do grocery shopping once a week andmost of the surveyed shoppers indicated that they spend an hour grocery shopping during each visit.
Although the respondents show significant differences in their grocery shopping behavior depending on their marital status, there appear to be similarities in their grocery shopping behavior as well.
Irrespective of their marital status, grocery shoppers are always looking for lowest prices when they shop, they like to buy specific brands, they get their information about the groceries from newspapers and flyers and from the signs and displays in the stores, and those spending more time shopping tend to do impulse purchases.

KEYWORDS: Grocery shopper, Marital status, Price, brand, Post-purchase, Satisfaction.

## I. INTRODUCTION

Convenience products appeal to a very large market segment, are consumed regularly and are purchased frequently. These include staples, impulse buying and emergency purchases. One elementcommon to each of these is distribution. If the product is not available to the consumer during an emergency, or when the customer is waiting to pay or is walking around the supermarket, the sale will not be made. Consumer buying decision process moves very quickly, especially in repeat purchasing of a familiar brand of convenience product. Food and grocery items reflect low levels of involvement, are less expensive and have less associated social risk. Grocery shopping constitutes an important and routine type of consumer behavior. Complex array of in-store stimuli like brands and point-of-purchase information are processed to achieve multiple buying goals. Hence, purchase intentions and outcomes often differ depending on an array of situational factors. Manufacturers and retailers are increasingly focusing on in store decision making.

## II. LITERATURE REVIEW

Several studies have been undertaken to study different aspects of grocery shopping behavior of customers.An insight into the literature shows studies examining the role and behavior of women and men towardfor shopping grocery products. Turcinkova, Brychtova, and Urbanek(2012) find that women take into consideration not only immediate needs, but also future needs of food and thus tend to stock up in advance. Men neither build up stocks nor shop for food

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unless and until it becomes necessary. They not only shop for food lesser than women, but also prefer to avoid large purchases. They stick to their shopping list products and search for the particular listed products.They do not like to replace their favorite products even if these are not available. According to the National Consumer Agency Research, Ireland,women continue to be mainly responsible when it comes to shopping for food and groceries and are not prepared to compromise on quality. The younger consumers, at large, are spreading their shopping across a number of stores. Irish consumers seem to show noteworthy shifts toward a supermarket's own brand labels as consumers believe that quality of own brand products has improved and so has competition in the own brand segment.Though consumers are extending their grocery budget further they are not prepared to compromise on quality. Heath and Soll (1996) find that many consumers use a system of mental budgeting in which they allocate money to different mental accounts(e.g. food, entertainment) and try to resist further spending in that category after the budget is depleted. Study on impact of savings on planned items and unplanned items by Stilley, Inman, and Wakefield(2010) revealed that it is dependent on the fact whether savings are encountered before or after the shopper's in store slack is depleted. Savings on unplanned items can lead to higher spending on unplanned items, increasing with income, but only when those savings occur after the slack is exceeded. In an attempt to study the relevance of time available on shopping behavior, Shannon and Mandhachitara (2008) find that grocery shoppers tend to be more risk averse when time pressured, but less risk averse if they are innovative. The Thais of Bangkok score high on innovativeness and shopping enjoyment and are more frequent patrons of hypermarkets than other grocery store formats. In marketing literature, inter-purchase time has been conceived by some authors as one of the main components of consumer's purchase decisions, since a consumer must decide what, when and how much to buy(Gupta,1998). Chiang, Chung, and Cremers(2001) find that consumers tend to make their shopping trips at discrete intervals, usually weekly. Kahn and Schmittlein (1992) find that intent to use a manufacturer's coupon is typically determined before entering the store, thus triggering need recognition before the shopping trip. Empirical research using consumer choice models has shown that display affects are significant factors in predicting brand choice and have differential effects on category brand purchasing (Erdem and Sun (2002)). According to Lemon and Nowlis (2002), when used alone as a promotional device, in-store displays have a greater effects on the purchasing of high versus low quality brands.

## III. OBJECTIVES OF THE STUDY

The above literature review shows that no study has been conducted to know the impact of the marital status of expats on grocery shopping behavior in the UAE. The aim of this study is to examine the grocery shopping behavior of married and single expats living in the Emirates of Dubai and Sharjahand their post purchase grocery shopping experience.
To develop a holistic analysis of the stated research problem, the following objectives have been developed for the study.

- To know the extent to which married and single expats differ in their grocery shopping behavior
- To know whether the expat grocery shoppers are satisfied with their grocery shopping experience


## IV. RESEARCH DESIGN AND METHODOLGY

A pre-designed questionnaire on a five-point scale was used to collect the primary data (shopping experiences) from the expat respondents residing in and around the Emirates of Dubai and Sharjah. The questionnaire was framed to elicit the shopping experiences of the respondents who were chosen using convenience sampling. Out of the 125 questionnaires distributed, 110questionnaires received back were complete in all respects and were used as the sample for this study.

## Sample profile

Demographic information reported in the study indicated the following:
Male respondents represented $58 \%$ of the sample, while female respondents represented the remaining $42 \%$. The respondents were in the following age ranges: $23 \%$ were under 25 years of age, $77 \%$ above 25 years. The report also indicated that $71 \%$ of the respondents were married and the remaining $29 \%$ were single.

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#### Abstract

About $12 \%$ of the respondents had studied up to school level, $41 \%$ of the sample had a bachelor's degree, $28 \%$ had done their masters, and the remaining $19 \%$ were diploma holders. The income levels of the respondents were as follows: $25 \%$ ofthe respondents earned up to AED 5000 per month, $30 \%$ earned between AED 5001 and 10, 000 per month, $20 \%$ earned betweenAED 10,000 and 15,000 per month and the remaining $25 \%$ earned more than AED 15,000 per month.

Grocery shopping habits of the respondents in the study indicated the following: Frequency of shopping: Most of the surveyed respondents indicated that they do grocery shopping once a week, about $30 \%$ of the respondents preferred to shop for groceries twice a week, $15 \%$ informed that they do shopping once a fortnight and $10 \%$ disclosed that they prefer to shop for groceries daily. Time spent during each grocery shopping visit: Most of the respondents spent an hour shopping for groceries: 36\% spent two hours for grocery shopping and about one-fourth of the respondents prefer to spend more than two hours for grocery shopping.


## V. RESULTS OF FACTOR ANALYSIS

To identify and analyze the grocery shopping behavior of the expat shoppers, 22 variables were identified for this study at the time of initial finalization of the questionnaire. In order to extract the various parameters, thatindicatedthegrocery shopping behavior of married and singleexpats living in the Emirates of Dubai and Sharjah and their post purchase grocery shopping experience, a Principal Component Analysis was applied on all the 22 statements included in the interval scale. Retaining only those factors that had Eigen values greater than one (as suggested by Kaiser), we could infer that five factors emerged totally. $65.71 \%$ of the total variance was explained by these five factors.

## Factor dimensions

Only those variables that had loadings $>0.50$ were included in the process of extracting individual factors from the analytical results. The results are presented in Table 1. Thus, variables A to D and G and Hconstituted factor I. A close look at all the variables in factor I impelled the researchers to identify a common name. This factor was then conceptualized as "Grocery shopping based on price - Related factor". Variables E and Fconstituted factor II. A close look at the items in factor II guided the researchers to conceptualize this factor as "Grocery shopping on Impulse purchase - Related factor". In a similar manner, variables I, to K andMformed factor III. This was grouped under the heading "Grocery shopping of listed items - Related factor".Factor IV is termed as 'Grocery shopping of branded items - Related factor" and comprised variables L, N, O, and P to S. Finally, variables T, UandVwere all grouped under the heading "Grocery shopping at regular outlet - Related factors" as shown in the Table1 below.

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Table 1: Identification of factors related to expats grocery shopping behavior

| Factor Name | Item | Variables | Factor Loadings |
| :---: | :---: | :---: | :---: |
| Factor-I - Grocery shopping based on prices- Related factors | A | I shop at multiple stores to find the lowest price | . 703 |
|  | G | I seek out and buy store brands to save money | . 677 |
|  | C | I buy less variety to reduce the number of items needed | . 648 |
|  | H | I choose products because of loyalty card discounts | . 646 |
|  | B | I buy more quantity ofcleaning materials to reduce the number of items needed | . 578 |
|  | D | I look at the store circular either before or at the store | . 535 |
|  |  |  |  |
| Factor-II - Grocery <br> shopping on impulse purchase of items - Related factors | E | I make additional unplanned purchases after seeing products/deals in store | . 620 |
|  | F | I stock up on certain items because they were on sale | . 603 |
|  |  |  |  |
| Factor III Grocery shopping of listed items Related factors | J | I use a store circular to make the list | . 781 |
|  | M | I list specific private label/store brand items to buy | . 713 |
|  | K | I make a list based on ingredients needed for recipes | . 708 |
|  | I | I list categories to buy(e.g. coffee, frozen vegetables, toothpaste) | . 703 |
|  |  |  |  |
| Factor IV Grocery shopping of branded items Related factors | P | My selection of brands is based on newspaper flyers received by me | . 741 |
|  | Q | I buy brands requested by a household member | . 731 |
|  | O | I select brands according to promotions and gift vouchers available with me | . 690 |
|  | L | I list specific brands to buy | . 659 |
|  | N | I choose brands based on previous usage and trust of the brands | . 650 |
|  | S | My brand selection depends on product label/packaging | . 566 |
|  | R | Advertisements and displays in the store help me to choose brands in the store | . 526 |
|  |  |  |  |
| Factor V - Grocery shopping at regular outlets - Related factors | V | I regularly shop at a particular grocery outlet because fresh and new stock is available there | . 719 |
|  | T | I regularly shop at a particular grocery outlet because of its nearness | . 639 |
|  | U | I regularly shop at a particular grocery outlet because I get all my requirements | . 619 |

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The major outcomes of the factor analysis are presented in Table 1: Shop at multiple stores to find the lowest price (Factor loading .703),seek out and buy store brands to save money (Factor loading .677), buy less variety to reduce the number of items needed (Factor loading .648), choose products because of loyalty card discounts (Factor loading .646), buy more quantity of cleaning materials to reduce the number of items needed (Factor loading .578), and look at the store circular either before or at the store (Factor loading .535). Make additional unplanned purchases after seeing products/deals in store (Factor loading .620)and stock up on certain items because they were on sale (Factor loading .603). Use a store circular to make a list (Factor loading .781), and list specific private label/store brand items to buy (Factor loading .713), make a list based on ingredients needed for recipes (Factor loading .708), and list categories to buy (Factor loading .703). Select brandsbased on newspaper flyers received (Factor loading.741), buy brands requested by a household member (Factor loading .731), select brands according to promotions and gift vouchers available(Factor loading .690), list specific brands to buy(Factor loading .659), choose brands based on previous usage and trust of the brands (Factor loading .650), and select brand based on product label/packaging (Factor loading .566), and choose brand in the store based on advertisements and displays in the store(Factor loading .526). Regularly shop ata particular grocery outlet because fresh and new stock is available there (Factor loading .719), regularly shop at a particular grocery outlet because of its nearness (Factor loading .639), and regularly shop at a particular grocery outlet becauseof availability of all required items (Factor loading .619).

## Hypotheses testing

In order to test whether grocery shopping behavior of the sample respondents differs according to marital status, an independent $t$-test was applied on all the 22 variables (of the interval scale). Significant differences were noticed among the married and single respondents in 18 out of the 22 variables on which the test was applied. The results where significant differences have been noticed are presented in Table 2 below.

Table 2: Results of Student's t-test

| Item | Marital <br> Status | $\mathbf{N}$ | Mean | S.D. | $\mathbf{P}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| b | Married | 79 | 4.20 | 1.21296 | .013 |
|  | Single | 31 | 3.58 | .99244 | .007 |
| c | Married | 79 | 4.30 | 1.16742 | .000 |
|  | Single | 31 | 3.19 | 1.24952 | .000 |
| d | Married | 79 | 3.75 | 1.17089 | .021 |
|  | Single | 31 | 3.16 | 1.21372 | .025 |
| e | Married | 79 | 4.03 | 1.07387 | .001 |
|  | Single | 31 | 3.13 | 1.19434 | .003 |
| f | Married | 79 | 4.29 | 1.02722 | .000 |
|  | Single | 31 | 3.36 | 1.35520 | .001 |
| g | Married | 79 | 4.10 | 1.07619 | .000 |
|  | Single | 31 | 2.94 | 1.50412 | .000 |
| h | Married | 79 | 4.03 | 1.38652 | .014 |
|  | Single | 31 | 3.30 | 1.26355 | .012 |
| j | Married | 79 | 3.34 | 1.31934 | .034 |
|  | Single | 31 | 2.74 | 1.31574 | .036 |
| k | Married | 79 | 4.27 | 1.29801 | .001 |
|  | Single | 31 | 3.28 | 1.22172 | .001 |
| l | Married | 79 | 4.42 | 1.10486 | .000 |
|  | Single | 31 | 2.90 | 1.35043 | .000 |
| m | Married | 79 | 4.14 | 1.32756 | .000 |
|  | Single | 31 | 3.84 | 1.24088 | .000 |

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| n | Married | 79 | 4.77 | .52986 | .000 |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | Single | 31 | 3.81 | 1.04624 | .000 |
| o | Married | 79 | 3.89 | 1.10925 | .008 |
|  | Single | 31 | 3.23 | 1.25724 | .014 |
| q | Married | 79 | 4.76 | .78276 | .000 |
|  | Single | 31 | 3.74 | 1.09446 | .000 |
| s | Married | 79 | 3.94 | 1.20194 | .000 |
|  | Single | 31 | 2.97 | 1.32876 | .001 |
| t | Married | 79 | 4.32 | 1.09245 | .015 |
|  | Single | 31 | 3.74 | 1.12451 | .018 |
| u | Married | 79 | 4.65 | .71679 | .001 |
|  | Single | 31 | 4.17 | .59209 | .001 |
| v | Married | 79 | 4.62 | .72153 | .000 |
|  | Single | 31 | 3.81 | 1.30178 | .002 |

H1: Buy more quantity of cleaning materials to reduce the number of items needed is independent of the Marital status interpretation: The analytical results of the t-test on Item B (Buy more quantity of cleaning materials to reduce the number of items needed) shows a mean value of 4.20 for married and 3.58 for single respondents which signifies that there exists a difference in their opinion with regard to Buy more quantity of cleaning materials to reduce the number of items needed. Since the P-value $0.013<0.01$ (at $5 \%$ level of significance), hypothesis1 is rejected.

H2: Buy less variety to reduce the number of items needed is independent of the Marital status interpretation: The analytical results of the $t$-test on Item C (Buy less variety to reduce the number of items needed) shows a mean value of 4.30 for married and 3.19 for single respondents which signifies that there exists a difference in their opinion with regard to Buy less variety to reduce the number of items needed. Since the P-value $0.000<0.01$ (at $5 \%$ level of significance), hypothesis2 is rejected.

H3: Look at the store circular either before or at the store is independent of the Marital status interpretation: The analytical results of the t-test on Item D (Look at the store circular either before or at the store) shows a mean value of 3.75 for married and 3.16 for single respondents which signifies that there exists a difference in their opinion with regardtoLook at the store circular either before or at the store. Since the P-value $0.021<0.01$ (at $5 \%$ level of significance), hypothesis3 is rejected.

H4: Make additional unplanned purchases after seeing products/deals in store is independent of the Marital status interpretation: The analytical results of the $t$-test on Item $E$ (Make additional unplanned purchases after seeing products/deals in store) shows a mean value of 4.03 for married and 3.13 for single respondents which signifies that there exists a difference in their opinion with regard to Make additional unplanned purchases after seeing products/deals in store. Since the P-value $0.001<0.01$ (at $5 \%$ level of significance), hypothesis4 is rejected.

H5: Stock up on certain items because they were on sale is independent of the Marital status interpretation: The analytical results of the $t$-test on Item F (Stock up certain items because they were on sale) shows a mean value of 4.29 for married and 3.36 for single respondents which signifies that there exists a difference in their opinion with regard to Stock up on certain items because they were on sale. Since the P-value $0.000<0.01$ (at $5 \%$ level of significance), hypothesis5 is rejected.

H6: Seek out and buy store brands to save money is independent of the Marital status interpretation: The analytical results of the t-test on Item G (Seek out and buy store brands to save money) shows a mean value of 4.10 for married and 2.94 for single respondents which signifies that there exists a difference in their opinion with regardto Seek out and buy store brands to save money. Since the P-value $0.000<0.01$ (at $5 \%$ level of significance), hypothesis6 is rejected.

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H7: Choose products because of loyalty card discounts is independent of the Marital status interpretation: The analytical results of the t-test on Item H (Choose products because of loyalty card discounts) shows a mean value of 4.03 for married and 3.30 for single respondents which signifies that there exists a difference in their opinion with regard to Choose products because of loyalty card discounts. Since the P-value $0.014<0.01$ (at $5 \%$ level of significance), hypothesis7 is rejected.

H8: Use a store circular to make the list is independent of the Marital status interpretation: The analytical results of the t -test on Item J (Use a store circular to make the list) shows a mean value of 3.34 for married and 2.74 for single respondents which signifies that there exists a difference in their opinion with regard to Use a store circular to make the list. Since the P-value $0.034<0.01$ (at $5 \%$ level of significance), hypothesis8 is rejected.

H9: Make a list based on ingredients needed for recipes is independent of the Marital status interpretation: The analytical results of the $t$-test on Item K (Make a list based on ingredients needed for recipes) shows a mean value of 4.37 for married and 3.28 for single respondents which signifies that there exists a difference in their opinion with regardto Make a list based on ingredients needed for recipes. Since the P-value $0.001<0.01$ (at $5 \%$ level of significance), hypothesis9 is rejected.

H10: List specific brands to buy is independent of the Marital status interpretation: The analytical results of the $t$-test on Item L (List specific brands to buy) shows a mean value of 4.42 for married and 2.90 for single respondents which signifies that there exists a difference in their opinion with regard to List specific brands to buy. Since the P-value $0.000<0.01$ (at $5 \%$ level of significance), hypothesis 10 is rejected.

H11: List specific private label/store brand items to buy is independent of the Marital status interpretation: The analytical results of the $t$-test on Item $M$ (List specific private label/store brand items to buy) shows a mean value of 4.14 for married and 3.84 for single respondents which signifies that there exists a difference in their opinion with regardto List specific private label/store brand items to buy. Since the P-value $0.000<0.01$ (at $5 \%$ level of significance), hypothesis11 is rejected.

H12: Choose brands based on previous usage and trust of the brands is independent of the Marital status interpretation: The analytical results of the t-test on Item N (Choose brands based on previous usage and trust of the brands) shows a mean value of 4.77 for married and 3.81 for single respondents which signifies that there exists a difference in their opinion with regardto Choose brands based on previous usage and trust of the brands. Since the P-value $0.000<0.01$ (at $5 \%$ level of significance), hypothesis 12 is rejected.

H13: Select brands according to promotions and gift vouchers available with me is independent of the Marital status interpretation: The analytical results of the t-test on Item O (Select brands according to promotions and gift vouchers available with me) shows a mean value of 3.89 for married and 3.23 for single respondents which signifies that there exists a difference in their opinion with regard to Select brands according to promotions and gift vouchers available with me. Since the P -value $0.008<0.01$ (at $5 \%$ level of significance), hypothesis13 is rejected.

H14: Buy brands requested by a household member is independent of the Marital status interpretation: The analytical results of the $t$-test on Item Q (Buy brands requested by a household member) shows a mean value of 4.76 for married and 3.74 for single respondents which signifies that there exists a difference in their opinion with regardto Buy brands requested by a household member. Since the P -value $0.000<0.01$ (at $5 \%$ level of significance), hypothesis14 is rejected.

H15: Brand selection depends on product label/packaging is independent of the Marital status interpretation: The analytical results of the $t$-test on Item $S$ (Brand selection depends on product label/packaging) shows a mean value of 3.97 for married and 2.94 for single respondents which signifies that there exists a difference in their opinion with regardto Brand selection depends on product label/packaging. Since the P-value $0.001<0.01$ (at $5 \%$ level of significance), hypothesis15 is rejected.

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H16: Regularly shop at a particular grocery outlet because of its nearness is independent of the Marital status interpretation: The analytical results of the $t$-test on Item $T$ (Regularly shop at a particular grocery outlet because of its nearness) shows a mean value of 4.32 for married and 3.74 for single respondents which signifies that there exists a difference in their opinion with regard to Regularly shop at a particular grocery outlet because of its nearness. Since the $P$-value $0.015<0.01$ (at $5 \%$ level of significance), hypothesis16is rejected.

H17: Regularly shop at a particular grocery outlet because I get all my requirements is independent of the Marital status interpretation: The analytical results of the $t$-test on Item $U$ (Regularly shop at a particular grocery outlet because I get all my requirements) shows a mean value of 4.65 for married and 4.17 for single respondents which signifies that there exists a difference in their opinion with regard to Regularly shop at a particular grocery outlet because I get all my requirements. Since the P-value $0.001<0.01$ (at $5 \%$ level of significance), hypothesis 17 is rejected.

H18: Regularly shop at a particular grocery outlet because fresh and new stock is available there is independent of the Marital status interpretation: The analytical results of the $t$-test on Item V (Regularly shop at a particular grocery outlet because fresh and new stock is available there) shows a mean value of 4.62 for married and 3.81 for single respondents which signifies that there exists a difference in their opinion with regard to Regularly shop at a particular grocery outlet because fresh and new stock is available there Since the P-value $0.001<0.01$ (at $5 \%$ level of significance), hypothesis 18 is rejected.

## Post-purchase experiences of grocery shoppers

In order to test the post-purchase satisfaction of the grocery shoppers, Structural Equation Modeling technique with the help of SAS software (Version 9.0) was applied on five hypotheses: H1: Grocery shopping based on price, H2:Grocery shopping on impulse purchase, H3:Grocery shopping of listed items, H4: Grocery shopping of branded items and H5; Grocery shopping at regular outlet.The factors correlation matrix was used as an input in the model. The model is estimated using maximum likelihood method.H1: Grocery shopping based on price with t -value5.6897, H3: Grocery shopping of listed items with $t$-value -3.1278 and H5: Grocery shopping at regular outlet with $t$ - value 3.0150 are found to be significant (at $5 \%$ level of significance)inpredicting the post purchase satisfaction of the grocery shoppers. The results are presented in Table3 given below.

Table 3: Results of structural equation modeling

| Hypothesis | Statement |  | Standard <br> Error | Coefficient | t-Value |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Significant in <br> Predicting the <br> Respondents <br> Satisfaction level |  |  |  |  |  |
| H1 | Grocery shopping based on price | 0.1387 | 0.7890 | 5.6897 | Significant |
| H2 | Grocery shopping on impulse <br> purchase | 0.1231 | -0.0929 | -0.7547 | Not significant |
| H3 | Grocery shopping of listed items | 0.0968 | -0.3027 | -3.1278 | Significant |
| H4 | Grocery shopping of branded items | 0.1862 | 0.1532 | -0.8229 | Not significant |
| H5 | Grocery shopping at regular outlet. | 0.1371 | 0.4134 | 3.0150 | Significant |

## Discussion

On the basis of the different analyses that were carried out, the following picture emerges:- The majority of the respondents do grocery shopping once a week and one-third prefer to do grocery shopping twice a week; $40 \%$ of the surveyed respondents indicated that they spend an hour grocery shopping during each visit, more than one-third of the

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respondents disclosed that they spend two hours for grocery shopping and about one-fourth of the surveyed respondents appear to spend more than two hours for grocery shopping.
Factor analysis of the data clearly grouped the statements included in the interval scale into the following five factors: Grocery shopping based on price-Related factors, Grocery shopping on impulse purchase-Related factors, Grocery shopping of listed items-Related factors, Grocery shopping of branded items -Related Factors and Grocery Shopping at regular outlet-Related factors. These five factors together explained $65.71 \%$ of the total variance.
Application of the t -test on all the 22 variables (of the interval scale) to test whether the grocery shoppingbehavior of the sample respondents differ according to marital status, showed significant differences among the married and singlerespondents in 18 out of the 22 variables on which the test was applied.

However, irrespective of their marital status, the respondents appear to agree on the following when they go for grocery shopping: the respondents shop at multiple stores to find the lowest prices, they like to buy specific brands and their selection of brands is based on advertisements that come with the newspapers. Also the respondents informed that they are helped by the signs and displays in the store to choose the brands when they go for grocery shopping.

The Structural Equation Modeling technique was applied on five factors to find out the post purchase satisfaction of the grocery shoppers and the results showed three factors Grocery shopping based on price with a t- value of 5.6897: Grocery shopping of listed items with a t- value of -3.1278 and Grocery shopping at regular outlet with a $t$ - value of 3.0150 were significant in predicting the post-purchase satisfaction of the grocery shoppers.

Correlation between the five factors and the two variables (frequency and time spent on grocery shopping) were calculated by using Pearson's Correlation method. The results showed that shoppers spending more time on grocery shopping is significantly correlated with the impulse purchase factor at the 0.05 level (2-tailed test).

Based on the findings of the various analyses carried out, it can be suggested that although the respondents show significant differences in their grocery shopping behavior depending on their marital status, there appear to be similarities in their grocery shopping behavior as well. Understanding these similarities the grocery stores can design their marketing strategies. Irrespective of their marital status, grocery shoppers are always looking for lowest prices when they shop. To meet this expectation of the grocery shoppers, the stores should try to rework their pricing strategies to find out how they can reduce their overhead costs and make their offerings more price attractive compared to their competitors. Stores can also motivate their grocery shoppers by offering loyalty cards and price discounts to these loyal customers. The study shows that grocery shoppers like to buy specific brands. The stores need to identifythe preferred brands of their grocery shoppers by their customers in different categories of groceries. Category management can be carried out to narrow down the preferred brands of groceries of their shoppers and offer these brands to them. By using the data base of their loyal customers and their shopping behavior their preferred brands of groceries can be understood and can be offered. The study shows that grocery shoppers get their information about the groceries from newspapers and the flyers inside them and the signs and displays in the stores. Hence, the stores should make sure to provide all the information about the groceries, brands and their prices in the newspapers and fliers inside the newspapers and also prominently display these details inside the stores by signs and displays. Additionally, stores can use the data base and send SMS messages to their loyal shoppers informing them about any special offers and deals. The study revealed that grocery shoppers spending more time shopping tend to do impulse purchases. To motivate shoppers to spend more time shopping, stores need to provide good car parking facilities, pleasant ambience to the shoppers inside the stores and proper signs and displays in different languages giving details about the groceries staked up in different sections, offers and deals: provide sufficient aisle space for easy movements to check out different groceries on the shelves and displays: and employ very polite, courteous and informative employees to help the shoppers if and when they require any assistance.

## Limitations and future research

Any survey-based method, including that adopted in this study, involves measurement errors; for example, the elicitation of a scale measurement, or the respondent's ability to accurately report their level of agreement with the survey statements (Bodey\& Grace, 2006). However, efforts were made to design the administered tool to be simple and

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easy to understand and respond. Convenient sampling was used to collect the data from 110 respondents living in and around the Emirates of Sharjah and Dubai.

Regarding future research, it is suggested that more samples from other Emirates be taken for study. Further, separate studies can be undertaken on other shopping behavior towardconsumer durables and electronic goods, to name a few.

## VI. CONCLUSION

There is no doubt that established grocery stores have clearly understood the competitive environment they are operating in and use the newspapers and flyers to inform their shoppers about various offers and havealso introduced loyalty programs not only to attractgrocery shoppers but also to retain them. However, stores can think of introducing different loyalty programs based on the marital status of the shoppers (shoppers who are married but living alone in UAE can be brought under the single status) and also on the basis of purchase made by them for example by giving cards in different colors or types such as silver, pearl and diamond. This can help the stores to know from their data base the groceries purchased by different shoppers, the brands preferred by these shoppers andalso by the frequency of their purchase. This can go a long way in helping the stores to fine tune their marketing strategies and there by their offerings to these shoppers.

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