The Relationship between Product Mix Elements and Consumer Buying Behavior– A Case of Jordan

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Abstract: This study aims to identify the relationship between product mix elements and consumer's buying behavior in Amman City – Jordan. To identify the relationship between product mix elements and consumer's buying behavior, specific independent variables such as product package, brand name, product information and product quality has been considered. The researchers designed a questionnaire based on previous studies and the questionnaire was given out to 500 respondents out of which 460 were returned, only 430 were valid for the analytical descriptive study. SPSS was used to analyze the data. The main result of this study indicates that the product’s quality, information, brand name and package has a significant positive relationship on consumers’ buying behavior, were product information and product quality had the most contribution which effect consumers’ buying behavior.

Keywords: Product mix, Brand name, Package, information, Quality, consumer buying behavior, Jordan.

1. Introduction

Marketers are facing a lot of obstacles in convincing consumers to buy their products and adopt it. Practically there are many factors which affect consumers’ buying behavior such as, product features, product brand name, product package, product quality, product country of origin and product information. (Henrieta et al.2015; Holt 2015; Miyuri 2015; Mining 2014; Hislop 2001; Winkielman et al. 2000; Dodds et al. 1991; and MaCardh 1981) These factors are known literally as product mix elements which are designed by the company according to market needs and wants. There are also secondary factors that affect consumer buying decisions such as product price, product promotion system and product distribution system which all together constitute the marketing mix elements Kotler & Keller (2016). Such elements are designed and developed according to market needs and in reflection to competitor’s reactions. For this reason, it is necessary for the company to analyze the relationship between all the above-mentioned elements and consumer buying behavior to have a clear idea about the markets’ reaction towards its products, and on the other hand, to be able to face the tough competition in that market. This study is an attempt to identify the relationship between product mix elements and consumer buying behavior in Jordan where a lot of competitors are operating with special emphasize on consumer goods sold in Amman city the capital of Jordan. Sever changes are taking place in consumer's markets, which gives greater importance to product mix elements as a strategic tool for companies to differentiate their products from other competitors in consumer goods markets which enables them to gain competitive advantage, where product mix elements are the final communication tool that used by companies to convince consumers to buy their products. This fact gives product mix elements an important factor for marketers of consumer goods to be considered when designing their marketing strategies (Holmes & Paswan, 2012).

2. Research Problem

There are a lot of consumer goods which are highly identical to each other which have increased the competition among companies to design and develop new marketing strategies to make their consumer products in a distinctive way in order to compete with other competitors; out of these strategies are those which are related to product mix elements of consumer products represented by

Consumers are still unaware of the importance of the product mix elements and its role on their buying decision. In addition to the uncertainty that rises from the lack of knowledge of the features of product mix elements in the target market which entails marketers to deal with these challenges by providing a distinctive consumer product that are matching customer needs and wants which helps to maintain stable market share. It is to be remembered that customers are the main targets of those companies which in return should design and develop the product mix elements of consumer products which attracts and maintains their satisfaction and loyalty. Frequently, marketers must consider product mix elements as a strategy to directly attract and convince consumers by developing and the designing an effective product mix elements (Henrieta et al., 2015; Holt, 2015; Miyuri, 2015; Mining, 2014; Hislop, 2001; and Winkielman et al., 2000). The current research paper attempts to identify the relationship between product mix elements and consumer's buying behavior in Amman city the capital of Jordan.

3. **Frame Work of study:**

Based on the literature reviewed and past studies represented by (Henrieta et al., 2015; Holt, 2015; Miyuri, 2015; Mining, 2014; Hislop, 2001; Winkielman et al., 2000; Dodds et al., 1991; and Macarth, 1981) the researcher designed frame work of the study shown in figure (1) as a research model which represent the independent variables (IV) and dependent variables (DV). The independent variables are shown on the left side of the figure (1) which is the product mix elements; product package, product brand name, product quality and product information. On the right side of the figure (1) the dependant variable is represented by (CBB); consumer buying behavior.

![Model of study](image)

**Figure (1): Model of study**

4. **Literature Review:**

Product mix elements are playing an important role in convincing consumers to buy products, because of this fact marketers and producers of consumer products gives great attention to this matter while setting up their marketing strategies and plans. Armstrong and Kotler (2009) defined product mix as the bundle of product lines provided by the companies to the markets. Product mix management is the responsibility of top management or strategic business unit due to the importance of this issue to the companies. On the other hand, Sami (2017) clarified that product mix refers to important decisions related to the product such as product quality, product packaging, product design, information of product and product assortment. The decisions related to product mix elements generally discusses the following issues: (Kotler & Keller, 2016; Ashaduzzaman et al., 2016)

- Present product mix.
- New Product lines or those are going to be omitted
The importance of new product mix compared to present product mix.

The possible consequences for environmental changes in the future on product mix.

4.1. Product Mixture Elements:

Literature related to this topic determined the following as an elements of product mixture elements:

4.1.1. Product Package:

"Kotler & Keller (2016) defines packaging as all the activities of designing and producing the container for a product. Packaging can be defined as the wrapping material around a consumer item that serves to contain, identify, describe, protect, display, promote and make the product marketable.

"According to (Silayoi & Speece, 2005), a package delivers information about the product such as its characteristics and the quality of its brand. During the purchasing decision, the package assists the consumer by creating the overall product perception which helps evaluation and making the right choice."

Aslam et al.,2015;Zerkri 2015; Ahmed et al.,2014; Muhmmad 2014; Potarak 2014; Mazengia 2014; Shah et al., 2013 Abdullah 2013; and Nawaz et al., 2012 in their studies assured that product package attracts consumer's towards a certain brand, it also increases its image, and stimulate consumers' perception about a product. They concluded that packaging could be considered as one of the most valuable tools in marketing communication, requiring a more detail analysis of its components and more impact of these elements on consumer buying behavior.

H01: Statistically is there no significant relationship between consumer product package and consumer's buying there behavior (α ≤ 0.05).

4.1.2 Product Brand Name:

A brand is a name, term, design, symbol, or other feature that distinguishes an organization or product from its rivals in the eyes of the customer (Kotler and Keller 2016). Branding is one of the most important elements of product mixture since it identify the product to the market and it distinguishes the product from competitors. There are different tools for branding namely; brand, branding, brand mark, trade mark and trade name which are all an important and effective tools that can influence consumers' buying behavior. (Kotler and Keller, 2016). Winkielman et al., 2015 in their study assured that the information consumers are storing in their minds about a product is crucial in guiding consumer buying decision. Henrieta, (2015) in his study revealed that 50% of respondents chose a product or a service for a particular brand. They choose a product or a service by a brand. Holt (2015) in his paper indicated that branding has become one of the most important aspect to create customer value, not just images and is also a key tool for creating and maintaining competitive advantage. Branding is the process of creating a relationship between a company's product and emotional perception of customer for the purpose of generating segregation among competition and building loyalty among customers (Hislop 2001)

H02: Statistically is no significant relationship between consumer brand name and consumer's buying behavior (α ≤ 0.05).

4.1.3 Product Quality:

The quality of the product is one the most important elements in the purchase decision making process for consumer product. When the consumer shapes an opinion about the product, the quality element is highly important (Mazengia 2014). The consumer makes a quality evaluation features about products accordingly. Here, the consumer may perceive the usefulness of the product and judge the favorability of the product. When consumers view the product on the shelf, they are usually forced to make a quality evaluation of the product through experience with the product itself to evaluate it and take the final decision to buy it again or not (Holmes and Paswan. 2012).

Quality judgments are influenced by product characteristics of consumer goods particularly. When the product itself communicates high quality, the consumer assumes the product itself as a high-quality item. If the package gives the impression of low quality, the consumer perceives the
actual product as a low-quality item. Underwood et al., (2001) suggest that consumers instinctively can imagine how the product looks, tastes, feels, smells, and sounds while viewing pictures and images on the package. Product should be exciting and safe and have a high quality at the same time. Consumer goods' expectations are created by quality elements such as labeling and product information. The quality combined with product price can influence the purchase intention. The price of lower-priced packaged goods receives less attention than high-priced goods (Holmes and Paswan 2012). Miyuri (2015); and Dodds et al., (1991) in their studies indicated that there is a positive relationship between product quality and consumers' buying behavior.

**H03: Statistically there is no significant relationship between consumer product quality and consumer's buying behavior (α ≤ 0.05).**

### 4.1.4 Product Information:

"Communication of information is one of the core functions of product mixture, which can assist consumers in making their decisions carefully. However, conveying too much information may reduce readability and sometimes cause confusion, it can be misleading or inaccurate when manufacturers use small fonts and dense writing styles which are used on the package trying to maximize information. Confusion can also affect a consumer's buying behavior and can restrict consumers from making decisions (Dobson & Yadav, 2012)."

"Mitchell and Papavassiliou (1999) suggest that one major way consumers reduce confusion from information overload is to narrow down the choice set. Considering fewer alternative brands and evaluating fewer attributes which might decrease the probability that the consumer will be confused by excessive choice and information overload. Minjung (2014); Silayoi and Speece (2004) suggest that experience makes consumers select prospectively the product and it, however, restricts the area of their choice. Balance between information and choice between alternatives is needed to decrease the difficulty of purchase decisions."

**H04: Statistically there is no significant relationship between consumer product information and consumer's buying behavior (α ≤ 0.05).**

### 4.2 Consumer Buying Behavior

Schiffman and Joseph, (2015) define consumer's behavior as "The behavior consumers display in searching for, purchasing, using, evaluating and disposing of products that they expect will satisfy their needs". Ayu (2012) defined consumer's behavior as the consumer’s decision with respect to the acquisition, consumption and disposition of goods, services, time, and ideas by human decision-making units. In its broadest sense, the term consumer's behavior describes two different kinds of consuming entities: the personal consumer and the organizational consumer. The personal consumer buys goods for his or her own use, for the use of the household, or as a gift for a friend where the products are bought for final consumption by the end users. The organizational consumers include businesses, government agencies and institutions, all of which buy the products in order to run their organizations (Schiffman and Joseph 2015).

Thus, marketers need to understand the product mix elements which consumers need and want, what consumers must do to purchase and consume them, and what influences their purchase and consumption behavior. Furthermore, Mutil (2012) suggested that in a competitive environment, the role of product mix elements of consumer goods has changed due to increasing self-service and changing consumers’ lifestyle. Firms’ interest in package as a tool of sales' promotion is growing increasingly. Package attracts consumer’s attention to a particular brand, enhances its image, and influences consumer’s perceptions to such goods (Ahmed et al, 2014; Wells and Armstrong, 2007; Wells et al 2010 Ashaduzzaman et al,2016).

The consumer's buying behavior process involves the interference of several people: the purchaser, whose role is to buy the goods; the user who uses the actual good and the influencer who provides information and recommendations about the goods.
Understanding the consumer is a good business strategy for the company. The companies and firms operate in order to satisfy the consumers’ needs of consumer goods which is the basic concept of marketing. At the point of purchase, the primary role of the package is to attract the consumers’ attention and to make the product stand out among similar convenience goods in the store or at the supermarket.

Product mix elements are used to attract attention; particularly when consumers are not very familiar with the brands, packages are found to attract attention. The goal of the product mix elements represented by package, brand name, color, size, shape, information and quality, is to gain attention and attract the consumer towards such products. Current trends, and healthy lifestyle create the attractiveness of the product which is presented through the package and design. (Underwood et al., 2001; Garber et al., 2000; Garber et al., 2001; Solomon, 2010)

Product mix elements are an important influencing factors to the consumer buying decision. It has great impact on the success of the company in the heavy competitive environment. It works as a tool for differentiation that helps consumers to choose the product from a wide range of similar products and stimulates consumer's buying behavior (Wells, et al., 2007). The way any product is packaged and looks on the store shelf plays a big part in whether or not shoppers will be interested in buying it. Thus product mix elements perform an important role in marketing communications and could be treated as one of the most important factors in attracting and influencing consumer’s purchase decision. The role of packaging has evolved from the traditional function of protecting the product against dirt, damage, theft, mishandling, and deterioration (Abdullah & Akterujjaman, 2013). Recently, product mix elements has also been utilized as a marketing tool to promote the product, to increase visibility of the product on the shelf, and to provide information to the customers.

**H0: Statistically there is no significant relationship between consumer product mix elements and consumer's buying behavior (α ≤ 0.05).**

5. **Methodology**

The study mainly employed the quantitative approach to research the units of analysis represented by final consumers of goods in Amman city, the capital of Jordan.

5.1. **Measurement**

The study questionnaire was designed to contain three parts; the cover letter explaining the study title and justifications behind it as well as the purpose of the questionnaire, the sample study demographic profile, and the five latent construct hypothesized to measure the relationship between product mix elements and consumer buying behavior in Jordan which comprises 35 items. The construct was adopted from prior studies found in literature with product package measured by five items, product brand name measured by seven items, product information measured by eight items, product quality measured by 9 items and finally consumer behavior measured by six items. All items are measured through a five point Likert scale with the following anchors; (1) strongly disagree to (5) strongly agree.

5.2. **Sample of Study.**

For the purpose of studying the relationship between product mix elements and consumer buying behavior in Jordan, the study sample was selected randomly from four mega malls located in Amman City the capital of Jordan. Their selection is justified by the fact that they represent the most frequently purchasers of consumer goods from these malls which are located in Amman city the capital of Jordan. The researchers distributed 500 questionnaires and 460 were returned, only 430 were valid for the analytical descriptive analysis. These responses are then used in further analysis. According to Sekran 2003, if the population is more than one million 384 is a suitable number to represent the population. A draft of questionnaire was translated to Arabic to be understandable to
The respondents and was given to professionals in marketing as well as academia's in the field in order to evaluate the research instrument face validity.

5.3. Data Screening

The dataset totaling 430 are then coded and entered into SPSS version 15 after which statistical analysis is conducted in three phases. First, factor analysis is conducted using variance rotation method to extract constructs and determine the variance explained. The researchers adopted 0.5 as threshold of primary loading. The factor analysis results showed five constructs with factor loadings ranging from 0.618 to 0.853. In addition, the Questionnaire reliability is tested through computing coefficient alpha. Table1 contains the results of Cronbach alpha reliability for the construct which ranged from 0.799 to 0.912 confirming the reliability of items that measure the underlying constructs as they exceed the acceptable level of reliability (a >0.70) (Sekran, 2003). The results shown in table (1)

Table (1) Alpha Cronbach (Reliability of the Variables)

<table>
<thead>
<tr>
<th>No.</th>
<th>Variables</th>
<th>Questions</th>
<th>Alpha Cronbach</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product Package</td>
<td>Q1-Q5</td>
<td>0.810</td>
</tr>
<tr>
<td>2</td>
<td>Product Brand name</td>
<td>Q6-Q12</td>
<td>0.799</td>
</tr>
<tr>
<td>3</td>
<td>Information on product</td>
<td>Q13-Q20</td>
<td>0.901</td>
</tr>
<tr>
<td>4</td>
<td>Quality of product</td>
<td>Q21-Q29</td>
<td>0.833</td>
</tr>
<tr>
<td>5</td>
<td>Consumer's Buying Behavior</td>
<td>Q30-Q35</td>
<td>0.889</td>
</tr>
<tr>
<td></td>
<td>All Items</td>
<td>35</td>
<td>0.912</td>
</tr>
</tbody>
</table>

The second step involved the multicollinearity check of variables through the identification of correlation (whether they are equal or greater than 0.7). The final step involved the multiple and simple regression tests of the hypotheses. Pearson Correlation Analysis is conducted for this purpose to determine the strength and direction of the relationships between variables (Table 2)

Table (2): Correlations of Variables

<table>
<thead>
<tr>
<th>factor</th>
<th>product package</th>
<th>Product Brand Name</th>
<th>Product Information</th>
<th>Product Quality</th>
<th>Consumer Buying Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>product package</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Brand Name</td>
<td>0.429**</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Information</td>
<td>0.332**</td>
<td>0.512**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Quality</td>
<td>0.368**</td>
<td>0.482**</td>
<td>0.589**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Consumer buying behavior</td>
<td>0.455**</td>
<td>0.554**</td>
<td>0.579**</td>
<td>0.413**</td>
<td>1</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

6. Results

6.1. Profile of Respondents

Majority of respondents are male with a percentage of (55%) and female respondents were (45%). The age of study sample is mostly between 18-35 years with a percentage of 66%. Those
Who hold the bachelor degree were (76%). Also, (65%) of the total respondents are married which represent the largest participation percentage in the study and only 35% are unmarried. Most of the respondents had a monthly income of 500 JD or below (55%) and only (10%) of them are earning more than 1000 JD. Regarding the frequency of purchasing consumer goods, most of the sample purchased the goods daily and frequently (67%), on the other hand only 37% purchased it infrequently.

6.2. Hypothesis Testing
Through the use of simple and multiple regression, the hypothesis, findings were revealed in table (2) which indicates that there is a positive direct relationship between product mix elements and consumer buying behavior for consumer goods in Amman city the capital of Jordan were $R = 0.38$ which indicates that all independent variables together have direct and positive relationship with consumer buying behavior for consumer goods which is responsible for 38% of the change in consumer buying behavior with a $p$ value of .000 which means that the null hypothesis is rejected and we accept the alternative hypothesis which indicates that there is a statistical relationship between all the variables of product mix elements (namely package, brand name, quality and information) and consumer buying behavior of consumer good in Amman city the capital of Jordan. The revised study model generated regression standardized estimate of the direct relationship between product mix elements and consumer buying behavior (Beta, t-value, and $p$-value) as shown in table (3). The hypothesis support that all paths are significant and had positive direct relationship ($t$-value> +/- 1.96; $p$-value<0.05).

### Table (3): Results of Multiple Regressions

<table>
<thead>
<tr>
<th>DV</th>
<th>$R$</th>
<th>$R^2$</th>
<th>$F$</th>
<th>DF</th>
<th>SIG</th>
<th>ID</th>
<th>B</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer Behavior</td>
<td>0.38</td>
<td>0.14</td>
<td>22.1</td>
<td>5</td>
<td>0.000</td>
<td>Product package</td>
<td>0.135</td>
<td>13.95</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Product Brand name</td>
<td>0.0125</td>
<td>8.09</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Product information</td>
<td>0.184</td>
<td>3.88</td>
<td>0.021</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Product quality</td>
<td>0.174</td>
<td>7.13</td>
<td>0.000</td>
</tr>
</tbody>
</table>

$H_0$:
Mathematically The Hypothesis Can BeExpressed In The Following Equation:

$$[H_0 : \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 \neq \beta_7 \neq \beta_8 = 0]$$

Against the alternative hypothesis: $[H_a : \beta_1 \neq \beta_2 \neq \beta_3 \neq \beta_4 \neq \beta_5 \neq \beta_6 \neq \beta_7 \neq \beta_8 > 0]$ and the multiple regression equation will be as follows:

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \beta_6 x_6 + \beta_7 x_7 + \beta_8 x_8 + \epsilon$$

Where in:
- $\alpha$: fixed value
- $\beta_{1-8}$: Tendencies towards independent variable
- $x_1, x_2, x_3, x_4, x_5, x_6, x_7, x_8$:
- $\epsilon$: Random Error
7. Discussion
The current study is an attempt to empirically investigate the relationship between product mix elements and consumer buying behavior in Amman city, the capital of Jordan. The findings showed that there is a direct and positive relationship between product mix elements and consumer buying behavior. Additionally, a large standardized coefficient compared to its counterparts indicates the variable's large contribution in affecting consumers' buying behavior. This shows that consumers are aware of product mix elements importance in their decision process. Findings show that product information as an element of product mix had the most influence on consumer buying behavior, followed by product quality, product quality, and finally product package. This shows that Jordanian consumers assure that there is a relationship between product mix elements and their buying behavior.

8. Conclusion and Future Research implications:
The present study aims to determine the relationship between product mix elements and consumer buying behavior in Amman city, the capital of Jordan. The four variables (product package, product brand name, product quality, and product information) were revealed to significantly affect consumer buying behavior, which could be one of the most important factors to be considered by Jordanians when purchasing consumer goods. This gives intentions to marketers to give great importance to these elements when designing their marketing mix elements. Moreover, the present study can be applied in a large sample in different areas. Additionally, they can apply this model in a different environment of Jordan or other countries such as KSA, Kuwait, and any other Arab countries.

References


