

THE EFFECT OF CUSTOMER IN BRAND CO-CREATION ON PRODUCT QUALITY: AN EXPLORATORY STUDY OF SOME SMARTPHONE BRANDS

By

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ABSTRACT

The key objective of the current study is to examine the impact of Customer In Brand Co-Creation (development, feedback, advocacy, and assistance) on product quality (esthetic, durability, ease of use, product performance, and serviceability) of certain brands of mobile phones. The problem of study was therefore formulated with regard to the relationship between the variables of study, which established the objectives of study. Study hypothesis chart crystallized the formulation of the special hypotheses tested in the statistical package to model structural equations in the least squares method (AMOS.V.25) and to analyze what study tool provided, a set of statistical methods were used: The deterministic factor analysis, the alpha Kronbach coefficient, the determination coefficient (R²), and the normal distribution of data. The results of study showed a clear and important perception of the relationship between the customer's participation in the creation of the brand and the quality of the product. Perhaps the most important results of study are reflected in the fact that the sample is highly aware of the importance of the brand's authenticity in order to encourage customers to participate in creating the brand to enhance the quality of products. This allows the organization to improve its capacity to effect change in a way that is appropriate to the skills and experience of its service providers during the service interview, and in the light of these findings, study has submitted a series of recommendations.

Keywords: Customer in Brand Co-Creation, product quality.

INTRODUCTION

The global economic developments represented by the market economy are the phenomenon of globalization, technological developments and the emergence of several new products. The challenges of international competition have increased and organizations are threatened with leaving the market if they are unable to meet the growing demands of consumers. The twenty-first century is the century of technology and innovative ideas, the century of renouncing old methods by adopting new and different methods and making essential improvements in all performance elements. Technical and technological development enabled organizations to realize the idea of faster production, which greatly contributed to increasing the volume of production, expanding markets and intensifying competition, and this also helped narrow local markets, which led all industrial organizations to seek external markets to manage their products. Local markets are no longer capable of absorbing all production.

In order to cope with developments and to take the largest market share, developed countries were the first to discover production methods that would enable this to happen, especially with regard to the production of high-quality products. This was reflected in the emergence of a new management philosophy and a shift in the way organizations are run in the so-called comprehensive quality management, which includes focusing the energies of organizations on continuous improvements in all operations and functions in order to deliver products that are impeccable and exceed the expectations of customers. The challenge for organizations in implementing the comprehensive quality management methodology is to introduce changes in processes within organizations.

General production in particular, to meet the needs of customers that change from time to time. Consequently, dealing in the markets requires business organizations to exert much effort in marketing their products, due to the high competition on the markets, which made these organizations seek to attract a larger number of customers through using different methods in their field of activity. In order to keytain their marketing position, these organizations have resorted to some marketing methods, especially with regard to customer participation, but many organizations have overused methods of customer participation in Brand Co-Creation in order to improve product quality.

part One: Study methodology

First: The problem of study

Product quality is a key element through which customers are attracted to buy, and as a result industrial companies get a high importance due to their fundamental impact on the economic and social society as they provide high quality products, which satisfy the needs and desires of the customers. The company has been operating in the Middle East and has been operating in the Middle East since the end of the year, and has been operating in the Middle East and the Middle East.

Proving that the customer is involved in Brand Co-Creation needs to focus on refining the brand's authenticity, so an interactive relationship between the customer's in Brand Co-Creation has been initiated. This helps organizations to reach a high degree of quality and accuracy by using tools and techniques to improve the processes that depend on the feedback and opinions of the customers, and hence the problem of study can be reflected in a fundamental question reflected in does the customer's participation in creating the brand affect the quality of the product? Therefore, in order to answer this question, the following sub-questions must be answered:

1. What is the level of interest of the sample study in the customer's participation in the creation of the brand?
2. What is the level of interest of study sample in promoting customer in Brand Co-Creation in order to achieve product quality?
3. How well does study sample have the techniques necessary to achieve product quality (product esthetics, durability, ease of use, product performance, serviceability)?
4. What is the interactive relationship between the customer's in Brand Co-Creation and product quality?.
5. Do the dimensions of customer in Brand Co-Creation directly affect product quality?

Second: Objectives of study

The researcher in this study has the following objectives:

1. Determine the level of interest of study sample in involving the customer in Brand Co-Creation.
2. Recognize the level of interest of study sample in promoting customer in Brand Co-Creation in order to achieve product quality.
3. Determine the extent to which study sample has the techniques necessary to achieve product quality (product esthetics, durability, ease of use, product performance, and serviceability).
4. Measure the interactive relationship between the customer's in Brand Co-Creation and product quality?, and does this relationship improve the ability of study sample to build product quality.
5. Demonstrate how the dimensions of the customer's in Brand Co-Creation directly affect product quality.

Third: The importance of study

The importance of study lies in measuring the nature and type of relationship between the customer's participation in Brand Co-Creation and the quality of the product, through the following:

1. Scientific importance

The scientific importance of this study stems from the fact that the subjects of study (customer participation in Brand Co-

Creation, product quality) are important subjects that have received the attention of a large number of researchers, and that these studies reflect the interest of many countries and the competent authorities that are developing the basis for improving customer participation.

2. Applied importance

The practical significance of this study is the contribution of its results to the formulation of a good strategy that contributes to demonstrating the importance of customer in the production quality of the sample studied, as well as the interest of the studied sample in using the customer's share dimensions to develop its potential and build a positive reputation for the sample.

Fourth: The hypothesis of the search

In the light of study methodology and its objectives, study hypothesis scheme has been prepared, see Figure 1, to express the relationship between study variables.

1) **The independent variable** is the customer's in Brand Co-Creation, including four dimensions (development, feedback, advocacy, and assistance), as the standard (France et al.,2020) was adopted.

2) **Dependent variable:** Product quality, represented by five dimensions (product esthetic, durability, ease of use, product performance, serviceability), A standard (Gervan, 1987) has been adopted.

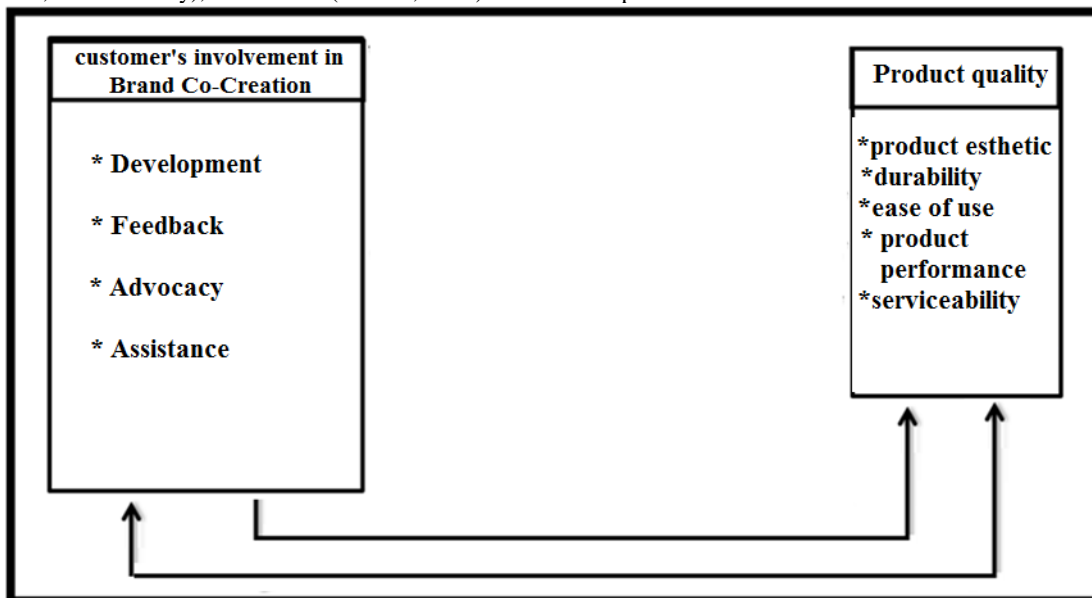


Figure (1) Study hypothesis diagram

Fifth: Study assignments

In order to achieve the objectives of study, the following assumptions have been formulated:

first Key hypothesis: There is a statistically significant correlation between the customer's in brand innovation and product quality.)

Second Key hypothesis: There is a statistically significant effect on the customer's in Brand Co-Creation in product quality.)

Sixth: Society and study sample

The study population is represented by a group of brands of mobile phones in Iraq, while the sample of the study consisted of customers of brands of mobile phones in Iraq. or components of the community in such a way that the description of these components accurately portrays the characteristics of the community from which they are selected. The study adopted the method (Hair, 2014: 101). Therefore, (750) questionnaires were distributed to a group of customers, and after tabulating the data, the number of valid forms for analysis was (732) customer forms.

Part Two: Theoretical Aspect

First: Customer In Brand Co-Creation

1. The concept of customer in Brand Co-Creation

Participation is the importance that customers find in products or brand based on their needs, values or interests (Zaichkowsky, 1985:341), and therefore the customer's in Brand Co-Creation is a new concept in marketing literature, as it is first beginnings in relationship marketing. More deeply than the customer-brand relationship, this subject has gained significant academic and administrative importance in recent years (Brodie et al., 2011:252), The concept of customer in Brand Co-Creation is also of great importance in building customer engagement by focusing on customer value in favor of a brand, which has improved the organization's capabilities and marketing activities by understanding more customer tastes and preferences and reflecting them on product development (BILRO,2017:52-53).

At present, researchers are moving forward on this subject in order to develop a specific definition that accolates

and expresses customer in Brand Co-Creation, yet there is still a need for a common and comprehensive interpretation of customer in Brand Co-Creation (Gambetti&Graffigna, 2020:802).

The various definitions of customer in Brand Co-Creation include, to a large extent, customer engagement as a multidimensional concept, which illustrates the interactive state of the customer based on the cognitive, mental and behavioral components (Hollebeek, 2011:785), The subject of customer in Brand Co-Creation can therefore be highlighted by focusing on the extent to which the customer is emotionally or unemotionally engaged in brand building through emotional, behavioral and cognitive innovation, which positively affects other customers' opinions (Goldsmith et al., 2010:1189), It is very difficult to find a comprehensive definition of Customer In Brand Co-Creation because there is no agreement between researchers on a trend or definition to be adopted, and the table (1) shows some definitions that have been covered by a group of researchers for Customer In Brand Co-Creation.

Table (1) The concept of the customer's participation in the creation of the brand according to the opinion of some researchers

| NO. | Researcher | Definition |
|-----|-------------------------------------|---|
| 1 | Vivek et al, 2012: 133 | Intensive customer in the organization's presentations, organizational activities and communication. |
| 2 | Hollebeek et al.,2014:154 | A positive customer brand awareness, emotional and behavior activity that is assessed as the customer interacts with the brand related to the organization's products |
| 3 | Kumar&Pansari,2016:2 | Attitudes, behaviors and levels that represent the relationship between customers, the organization and service providers |
| 4 | Bilro,2017:53 | A mechanism to build a relationship with customers and to participate in guiding the marketing goals that the organization aspires to achieve. |
| 5 | Nobre& Ferreira,2017:352 | The customer's cognitive, emotional and behavioral response to interaction and consistency with the brand. |
| 6 | Srivastava& Sivaramakrishnan,2020:2 | Customer behavioral aspects that are relevant to the organization's brand and drive their buying motives |
| 7 | Molina-Prados et al.,2022:3 | The level of the customer's ability to innovate and develop the organization's brand ideas |

In this way, it can be said that the customer's participation in Brand Co-Creation is a collaborative activity in which customers actively contribute to creating brand identity and image and designing products to their preferred specifications.

2. Dimensions of customer in Brand Co-Creation

Customer In Brand Co-Creation can be measured by identifying several important dimensions (France et al.,2020):

a. Development

The development of Customer In Brand Co-Creation is linked to the significant knowledge processing the customer offers to develop new ideas and provide new resources to the organization that directly contribute to brand development, provide opportunities to easily recognize its value, and enhance the perceived value of other customers (France et al. 2015).

The development also points to the fact that the organization is responsible for developing strategies and practices that promote the growth and development of its service providers, with happy providers contributing to the development of the organization (Munar et al.,2020:3-4).

b. Reverse feed

Feedback on Customer In Brand Co-Creation involves the extent to which customers provide brand feedback to help balance customer product requirements with the organization's long-term goals (Yi&Gong 2013:1280). According to Wu et al., 2010:722-726), feedback consists of varying skills, processes, and procedures to react quickly and easily to changes in input and output requirements, so that the process can consistently meet the customer's requirements with little time or cost (ALAPO,2018:31-32).

c. Defense (Advocacy)

The defense of Customer In Brand Co-Creation represents customer acceptance of the organization's branded products and a large contribution to brand support and sacrifice for its development (France et al. 2018:336).

Defending the organization contributes to improving the ability to quickly and accurately select the best products from among different resources and programs that serve the benefit of the organization and satisfy the needs and desires of its customers (Al-Saadi,2016:131).

d. Helping

Customer in Brand Co-Creation is the amount of help the customer offers in social attitudes to support the brand and address its cognitive problems (France et al.,2020:468), and (Al-Saadi, 2016:131); (ALWAN&TALIB,2016:377) Help is in the organization's recognition of the importance of encouraging

customers to participate in brand innovation through the function of systematically identifying negative externalities, adverse internal factors and internal pyramid factors. This means that recognizing the organization's help in developing its brand represents a replay of the recurring risk monitoring cycle.

Second: Product quality

1. The concept of product quality

In recent years, awareness has increased about the need to apply the concepts of comprehensive quality management in all organizations' work with a view to improving their products, increasing their profits and achieving competitive advantage. This will enable them to meet new challenges linked to strong competition both domestically and internationally (India, 2017:329). Quality according to the American Quality Control Association (ASQC) is represented as the overall characteristics and characteristics of a good or service that matches its ability to meet the demands or implied needs (Masouda and people, 2021:8).

The concept of brand authenticity, though recently focused on modern researchers, has also grown rapidly in both definition and perception. It can be said that originality is a much more complex phenomenon than just being real or original, although this view is clear in many early definitions. Social and scholarly sources rarely attempt to define the meaning of authenticity with any degree of precision, given the difficulty of defining it. They usually choose a fairly comprehensive enumeration of meanings and connotations (Hernandez-Fernandez & Lewis, 2019:223).

It is difficult to find a comprehensive definition of product quality because there is no agreement between researchers on a trend or definition to be adopted, and the table (2) shows some of the definitions that have been covered by a group of researchers for product quality.

Table (2) the concept of product quality according to the opinion of some researchers

| NO. | Researcher | Definition |
|-----|-----------------------------|--|
| 1 | Sam& Dhanya,2012:1 | A set of product features and features that contribute to meeting customer requirements |
| 2 | Asmayadi& Hartini,2015:2 | Fair relationship between quality and performance |
| 3 | Watson et al.,2015:790 | It is essential to reflect the marketing efforts of the Organization to achieve it |
| 4 | Yulisetiari et al.,2017:215 | The extent to which the new product can deliver the expected performance including reliability, durability, accuracy, ease of operation, and the ability to attract and create value for customers |
| 5 | Fulgione,2022:5 | The general customer's awareness of the product's contaminant and intangible characteristics |
| 6 | Sipakoly,2022:850 | Customers assess product characteristics that meet their needs and expectations |
| 7 | Tran,2022:13 | Customer satisfaction with a product that meets or exceeds their expectations |

Based on the above, it can be said that the quality of the product is the customer's assessment of the features in the product that will meet their needs and desires.

2. Product quality dimensions

Improving the organization's ability to offer high quality products is very important by examining the fact that this matter requires extensive studies by the organization to determine the requirements of the customer and achieve a balance between these requirements and its capabilities in order to achieve the quality of the products preferred by customers. This requires a set of dimensions from which product quality can be measured: (Gervan 1987):

a. Product esthetic

Esthetics is one of the most important values in product design (Hanafy,2015:1489) because it reflects the beauty of the product (Alfakri et al.,2018:531), and most marketing systems lack the value of the product esthetic (Salian & Tiwari, 2018:237). Esthetic knowledge represents the ability to classify the conscious, conscious, and physical data (Berger et al.,2015:75). (Wang&HSU, 2019:5) considers product esthetics to be an important factor in communicating with potential customers by identifying and working on their preferences.

b. Durability

Product design means to determine the general structure of the product to be produced, the components involved in this commodity, their interconnection, their functioning, their installation, and the use and keytenance of this commodity, and design quality is the tangible and intangible characteristics of the product design (AbdelHaq,2018:43).

c. Product performance

The performance of the product is directly related to the ability of the product to perform the expected function of the product, which has been redesignated as a reliability or merit system, as well as the ease of keytenance and repair of the commodity when needed (DICH, 2015:53). (Lobasenko,2017:76 ; Ansari,2014:385 ; Walugembe et al.,2017:69) the performance of a product indicates the level at which the core characteristics of a product

operate, and organizations must design a level of performance appropriate to the target market and competition.

d. Serviceability

The labor sector in business organizations does not mean only providing services, earning profits and leaving the customer without following up or knowing the extent of satisfaction and new desires, following the level of service and the degree to which it is satisfied with the customer's need. Post-sales services have become an important promotional element to identify and convince the beneficiary of the service provided (Jaber and Al-Baldawi, 2015: 128). Customers are satisfied when they meet the requirements, needs and expectations of the organization (Kotler & Armstrong, 2012:20).

e. Ease of use

The ease of use and the availability of instructions and instructions to the customer on how to use the product increase the ability of the products to perform properly and safely as designed (Masoed and people, 2021:12). (Coursaris& Kripintres,2012:34-35) the easier it is to use, the more attractive it is to be, which means that the esthetics of the product reflects the customer's usage and the products offered are easy, accurate, durable and high quality.

Third: Perceived Brand Authenticity

1) Analyze the normal distribution

The results in Table (3) show that data extracted from the scanned community is normally distributed, indicating that the value of study variable is higher than (0.05), indicating that study results can be generalized to the scanned community), Table (3) shows that study data is the normal distribution.

Table (3) Testing the normal distribution of study variables

| Comparison criteria | | Variables | |
|-----------------------|------------|-------------------------------|--------------------|
| | | Customer In Brand Co-Creation | Product quality |
| Arithmetic mean | | 3.82 | 4.11 |
| Standard deviation | | 0.684 | 0.584 |
| Kol-Smi | Absolute | 0.083 | 0.095 |
| | Positivity | 0.056 | 0.062 |
| | Negative | -0.083 | -0.095 |
| Statistical parameter | | 2.242 | 2.574 |
| Sig. | | 0.200 ^c | 0.200 ^c |

2) Statistical description

First: The independent variable (the customer's participation in Brand Co-Creation)

The results of the table (4) resulted in the availability of a variable of customer participation in brand innovation by a percentage (76%), an arithmetic mean (3.82), a standard deviation of (0.684), and a variation factor of (18%), which means that the clients who are looking for the importance of focusing on spreading a positive and beautiful word about the products that the brand represents. This variable was measured through several dimensions, foremost of which came after the defense (Al-Manasra) with an arithmetical mean (4.2) and a standard deviation of (0.655), which means that the clients in search realize the importance of 000, which came within a relatively high interest (84%) and a differential factor of 16%. The development came at the last stage within the variable of the customer's participation in creating the brand with a mean (3.18), a standard deviation of (0.986), and a variation factor of 31%, which means that the research customers realize the importance of focusing on creating content on the Internet about the work of the products carried by the organization's brand. This provided a relative attention of 64%.

Table (4) Description and analysis of the customer's variable in Brand Co-Creation

| Dimension | Arithmetic mean | Answer direction | Answer level | Standard deviation | Relative importance % | Availability level | Coefficient of variation % |
|--|-----------------|------------------|--------------|--------------------|-----------------------|--------------------|----------------------------|
| Development | 3.18 | I agree | Moderate | 0.986 | 64% | Moderate | 31% |
| Reverse feed | 3.74 | I agree | High | 0.892 | 75% | Good | 24% |
| Defense | 4.2 | I agree | High | 0.655 | 84% | Good | 16% |
| Help | 4.15 | I agree | High | 0.652 | 83% | Good | 16% |
| Variable rate customer participation in Brand Co-Creation | | | | | | | |
| | 3.82 | I agree | High | 0.684 | 76% | Good | 18% |

Second: Dependent variable (product quality)

The results of the table (5) resulted in the availability of the product quality variable by a percentage (82%), which was accompanied by an arithmetic mean (4.11), a standard deviation of (0.584) and a variation factor of (14%), which means that the clients who are looking for the importance of concentrating on not causing any side damage to the products used. This variable was measured through several dimensions, which came at the forefront after ease of use with an arithmetic mean (4.07) and a standard deviation of (0.605), which means that research customers understand the importance of focusing on the organization's interest in providing guidance on

how to use the products offered. This came within a relatively high interest (81%) and a difference factor (15%), while the product's performance in the last stage came after the product's performance in the product quality variable with a mean (4.07), a standard deviation of (0.69) and a differential factor of (17%). This means that research customers understand the importance of focusing on product quality and its attractiveness to other customers.

Table (5) Description and Analysis of the Product Quality Variable

| Dimension | Arithmetic mean | Answer direction | Answer level | Standard deviation | Relative importance % | Availability level | Coefficient of variation % |
|--------------------------------------|-----------------|------------------|--------------|--------------------|-----------------------|--------------------|----------------------------|
| Product esthetic | 4.21 | I totally agree | Too high | 0.673 | 84% | Good | 16% |
| Durability | 4.05 | I agree | High | 0.693 | 81% | Good | 17% |
| Ease of use | 4.07 | I agree | High | 0.605 | 81% | Good | 15% |
| Product performance | 4.07 | I agree | High | 0.69 | 81% | Good | 17% |
| Serviceability | 4.07 | I agree | High | 0.623 | 81% | Good | 15% |
| Product quality variable rate | | | | | | | |
| | 4.11 | I agree | High | 0.584 | 82% | Good | 14% |

3) **Test hypotheses**

Key hypothesis one:

The first key hypothesis states: (There is a statistically significant correlation between the customer's in brand innovation and product quality.)

The table (6) indicates a statistically significant correlation between the customer's participation in brand innovation and product quality, with the correlation coefficient (0.541) at a significant level (0.01), i.e. a reliability of 0.99.

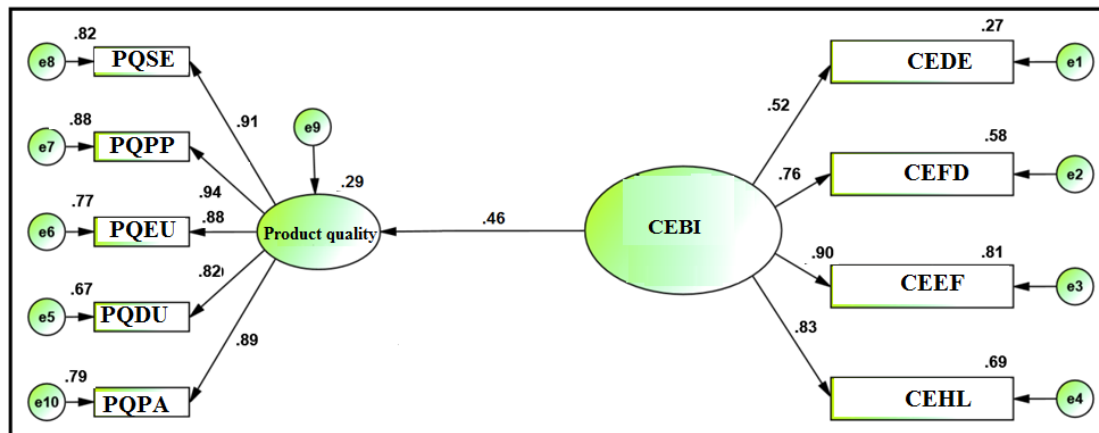
Table (6) Correlation matrix

| Product quality | Variables |
|--|--------------------------------------|
| 0.541** | Customer In Brand Co-Creation |
| ** . Correlation is significant at the 0.01 level (2-tailed). Sig. (2-tailed)=0.000 | |

second key hypothesis:

The second key hypothesis states: (There is a statistically significant effect on the customer's in Brand Co-Creation in product quality.)

To test this hypothesis, a structural model has been developed that illustrates the nature and type of relationship between the customer's in Brand Co-Creation and product quality, as Figure (2) illustrates the structural structure of the direct impact of the customer's in Brand Co-Creation on product quality. The table (7) also shows that the more researched customers realize the importance of their participation in Brand Co-Creation, the better the quality of the product, in other words, increasing the customer's participation in brand innovation by one unit will result in an improvement of one standard weight (0.707), a critical value (33,667), and a standard error (0.021). This means that customers understand the importance of being involved in creating the brand to improve the quality of their products and provide their opinions in line with the nature and esthetic of their products.



Form (2) structural model of customer in Brand Co-Creation in product quality

The results of the table (7) also indicate that the customer's participation in the creation of the mark contributes to the explanation of the difference in product quality (0.293), and the rekeying value is due to factors not

included in study.

Table (7) The final results of the direct impact between the customer's in brand innovation and product quality

| Path | | Standard estimate | Standard error | Critical value | R ² | Sig. | |
|-------------------------------|------|-------------------|----------------|----------------|----------------|-------|-------|
| Customer In Brand Co-Creation | ---> | Product quality | 0.462 | 0.021 | 22 | 0.293 | 0.001 |

part Four: Conclusions and recommendations

First: Conclusions

1- A high awareness by the sample of the importance of the recognized brand authenticity to encourage customers to participate in brand innovation to enhance product quality, allowing the organization to improve its ability to make changes in a way that matches the skills and expertise of its service providers during the service interview.

2- The sample expressed the customer's focus on product development by helping the organization and directing it to develop its brand using designs that customers want available in the current products of the organization, in a way that confirms the fulfillment of the sample in the light of the following:-

- a. The sample felt it was important to help customers on how to use new product additives.
- b. The sample wants to own quality products by focusing on creating online content about the organization's brand work.
- c. Customers are interested in the organization's views in order to invest them in a focus on products that are well designed and that represent their happiness and well-being

3- A sample's sense of product beauty demonstrates product excellence by focusing on the product's durability, strength and durability, reflecting the quality of the organization's products.

4- The sample's desire to keytain a permanent relationship with the brand and to be associated with it through the buying frequency behaviors and not to turn to another sign even when there are material incentives offered by competing brands.

Second: Recommendations

1- The importance of applying the importance of the principles and codes of ethics of the organization's brand should be enhanced by the quality of the organization's brand integrity.

2- The first step is to improve the customer's confidence in the credibility of the promises and commitments made by the organization, so that the brand is more important than keeping its promises.

3- Take advantage of the sample's potential for service excellence by focusing on the quality of service provided in the product of high quality, thereby enhancing the sample's ability to repair service failures during product failures.

4- To use the customer's willingness to participate in brand innovation in order to improve product quality by focusing on not inflicting collateral damage on the products used, which increases the feeling of psychological engagement among the brand's customers and creates an emotional affection based on real loyalty and not false.

5- Invest the customer's relationship with the positive mouth sample by providing guidance on how to use the products offered to improve the quality and attractiveness of the products to other customers.

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