"Studying the relationship between Perceptual Mapping and Marketing Effectiveness"

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Abstract

With the population increase in the world and thus the increase in the number of private universities, both in developed and developing countries, including Egypt; consequently, it increased the competition between private universities, so it's necessary to have a new mechanism for decision makers in these universities, such as perceptual mapping to determine the position of universities to achieve marketing effectiveness. Thus, the purpose of this study is to explore the relationship between perceptual mapping and marketing effectiveness; and to determine the role, importance and applying of perceptual mapping and their impact on enhancing and achieving marketing effectiveness within private universities in Egypt.

Keywords: Perceptual Mapping, Marketing Effectiveness.

1. Introduction

Nowadays' the educational industry is one of the major industries in the service sector dealing with various parties in the society including customers (parents and students), government and professional academics. Higher education is growing rapidly all over the world because it's a sector that leads to the development and progress of countries, in addition to the fact that it's considered a very profitable sector in markets, which attracts large number of competitors, especially in private universities. There is an increase in the number of private universities all over the world and also in Egypt. The number of private universities in Egypt has reached forty five, according to the official website of the Supreme Council of Universities in Egypt. This led to an increase in competitiveness among private universities with the aim of increasing the number of applicants or students (Alhakimi & Qasim, 2014). In addition to, the increase in the number of students in higher education worldwide as expecting to expand from 97 million in 2000 to be more than 262 million students (Angulo-Ruiz, Pergelova, Cheben, & Anguloby 2025 Altamirano, 2016).

Due to these increases in the number of private universities, this encouraged universities to try to distinguish themselves from others. The rapid changes of consumer preferences in changing market conditions makes competition more aggressive among private universities. In view of the

intense competition where private universities need be differentiated from each other, a marketing mechanism must be used that enables these universities specifically private universities to determine their positions and competitive advantages, this can be done by using perceptual mapping.

The purpose of using perceptual mapping is to understand how targeted customers perceives and position your organization offering in comparison to competitors in marketplace; perceptual mapping are also used by organizations to help in identifying market segments, correspondingly, in determining gaps and opportunities in markets, as well as better understanding about target customers, and monitoring new market trends and competitors.

Moreover, upon previous studies perceptual mapping aid in developing effective branding, positioning and marketing strategies to enhance organizations marketing effectiveness to achieve profits, competitive advantage, customer loyalty, customer satisfaction, customer reputation, long-term growth and market shares. It's important for managers and decision makers to make strategic and marketing decisions correctly and quickly (Handayani, Bernadindwi & Argo, 2014).

Furthermore, based on previous studies, perceptual mapping had been applied frequently on either positioning or repositioning a product or brand and some others on services but few studies had been applied on universities. Besides, according to previous studies in order to analyze universities position, this

should be conducted through the use of perceptual maps that reflect consumers' perceptions of how universities are positioned in students' minds which aids decision makers to enhance marketing effectiveness to achieve short-term and long-term objectives. Thus, this study aims to explore the relationship between perceptual mapping and marketing effectiveness, as determining the role, importance and application of perceptual mapping and their impact on enhancing and achieving marketing effectiveness within private universities in Egypt.

2. Literature Review

The literature covers perceptual mapping and marketing effectiveness as the variables concerted on this study.

2.1. Perceptual Mapping

2.1.1. Perceptual Mapping definitions

Based on the reviewed studies, there are various of number of definitions related to perceptual mapping, where Sinclair and Stalling (1990) had described it as the visual representation that results in a graphical comparison of how organizations' products are competitive relative to competitors' and how these products are perceived and positioned by targeted customers, besides, these perceptions are represented on a graph of two or three dimensions/axis demonstrating product attribute (Nestrud & Lawless 2010; Gigauri, 2019). As the frequently used format is the two dimensional axis but sometimes using multidimensional

axis (Nestrud & Lawless, 2010; Malonda & Pangemanan, 2018; Gigauri, 2019).

Whereas, according to (Kotler & Armstrong, 2005) perceptual mapping can be named as perceptual positioning mapping or positioning mapping, where agreed upon by Kayombo & Carter (2017) and Gigauri (2019). Besides, another definition by (Kotler & Keller, 2012), that perceptual mapping is a visual or graphical illustration of consumer's preferences, opinions and perceptions; by portraying consumer opinions about products and services using various attributes, where marketers can find unmet consumers' needs and untapped marketing opportunities (Kayombo & Carter, 2017). Additionally, Perceptual maps define consumer's perceptions of objects on one or series of spatial maps, so that the relationship between objects can be seen easily (Gigauri, 2019).

While according to (Ugurlu, 2019), perceptual mapping is the graphical picture that shows competing alternatives plotted in an Euclidean space, where this definition was agreed by (Gigauri, 2019). Further, perceptual mapping has been described as it visually studying the relationship between two or more of attributes (Gigauri, 2019; Ugurlu, 2019). Perceptual maps are a technique that illustrates the relationship between multiple products in a visual manner (Nestrud & Lawless, 2010). Besides, according to Prasad & Verma (2019) perceptual mapping is a method of analyzing respondents' perceptions, by producing a

picture or a map that shows how service attributes are perceived in the minds of respondents, and proposes how these services can be positioned to maximize preferences.

2.1.2. Importance and uses of Perceptual Mapping

There are several methods used to produce graphical representations for dimensional data; in marketing the resulting data visualizations are often referred to perceptual maps; perceptual maps are one of the most powerful techniques that grapes great attention of academics, researchers, professions including marketers and managers (Iacobucci, Grisaffe & Desarbo, 2017; Gigauri, 2019) because it's used to visually displays organizations' offering relative to its competitors in marketplace on a graphical picture, where these maps breaks complex information and data to an easily understood and interpreted information that helps decision makers and marketers to simply take actions (Sinclair & Stalling, 1990; Nestrud & Lawless, 2010). Besides, perceptual mapping can provide valuable information for decisions related to service quality (Prasad & Verma, 2019). Additionally, perceptual maps aid in determining if there are differences in perceptions between different groups (Prasad & Verma, 2019). Also, it tracks consumers' perceptions of products or services that have changed over time (Gigauri, 2019; Prasad & Verma, 2019).

In marketing perceptual mapping had been applied in several areas to identify competition level and to determine substitute

products (Kayombo & Carter, 2017), also, to determine market segments (Gigauri, 2019), as its used in designing new products, determining appropriate pricing and distribution strategies as well as developing commercial strategies (Sinclair & Stalling, 1990; Gigauri, 2019). Moreover, it's used to determine consumers' opinions and preferences, as it help organizations, managers and marketers in highlighting key attributes or dimensions that consumers' upon evaluate organizations products or services (Sinclair & Stalling, 1990; Gigauri, 2019). Simply, perceptual mapping advances in study the most important attributes associated with a brand, product or service (Gigauri, 2019).

Perceptual mapping provides a distinctive ability to understand market structure, as analyzing complex relations between competitors in the market, besides, it determines the criteria buyers use in making purchase decisions (Gigauri, 2019). Generally, marketers have two broad objectives when considering the use of perceptual maps, one objective, is determining how brands' are positioned relative to competitors, and the other objective, is identifying product's attributes that influence consumers' decisions and choices (Kohli & Leuthesser, 1993).

According to Gigauri (2019), the positions of products or brands that appear on a perceptual map can be used by companies to illustrate strengths and weaknesses that are determined by consumers' perceptions. Consequently, most companies strive to satisfy their customers' as developing long-

term relationship with them; therefore, perceptual mapping is used as a graphical technique to demonstrate perceptions of potential customers' (Gigauri, 2019). It was reported in literature (2019) that perceptual maps are capable of offering a visual representation of the positioning endeavors. For instance, in case of discontent of a company with the attained product positioning, it might attempt to relocate it. The moral behind repositioning is to interchange consumers' acuities regarding a product to a novel, anticipated location *via* either marketing communication or advertising gadgets (Gigauri, 2019).

Furthermore, perceptual mapping contributes in developing positioning, repositioning and marketing strategies (Sinclair & Stalling, 1990; Gigauri, 2019; Mina, 2020).

2.1.3. Perceptual Mapping dimensions

Perceptual maps can have any number of dimensions, but it usually takes on two dimensions (Gigauri, 2019). Based on studies, only two attributes or dimensions are sufficient for perceptual mapping to imitate consumers' preferences and perceptions (Gigauri, 2019). Besides, perceptual maps are usually measured through two dimensional maps (having two dimensions or attributes) but sometimes it multidimensional maps (having more than two dimensions or attributes) (Sinclair & Stalling, 1990; Nestrud & Lawless, 2010; Yousafzai, Khan & Khan, 2017; Malonda & Pangemanan, 2018; Gigauri, 2019).

Moreover, previous studies had reported various numbers of dimensions or attributes to measure perceptual mapping, for universities, according to (Handayani *et al.*, 2014) used the educational quality, location, promotion, reference, tuition fees, facilities, and brand image; while, Rachim (2016) had used good advertising, near to home, cost and quality, cost and benefits, liked by family, popular / famous, complete sport facilities, and complete learning facilities; on the other hand, Kayombo & Carter (2017) used course availability, academic reputation, learning environment, fees, and employability; besides, Yousafzai *et al.*, (2017) used favorability, academic reputation, academic facilities, academic infrastructure, availability of majors, quality of social life, extracurricular activities, academic life, campus attractiveness, and prices.

While in other fields, such as smartphones according to (Yumusak, Yilmaz, & Gungordu, 2016) used the following dimensions to measure perceptual mapping which includes price, screen size, resolution, strength, design, ease of use, and weight. Whereas, according to (Ugurlu, 2019) in accommodation, used price and quality as dimensions for perceptual maps. The results showed by previous studies that they does not agreed on certain dimensions that measures perceptual mapping, because dimensions differ regarding different countries and different contexts.

2.2. Marketing effectiveness

2.2.1. Marketing effectiveness definitions

Marketing effectiveness had attracted interest among researchers / academics and business participants (Appiah-Adu, Fyall & Singh, 2001; Nwokah and Ahiauzu, 2008; Solcansky and Simberova, 2010; Daukseviciute, Valainis, & Vilkait, 2011; Kayabasi & Mtetwa, 2016); because according to Kotler (1977) Marketing effectiveness had been known for its strongly and closely link and association with organizations outcomes, for instance customer loyalty, gaining competitive advantage, customer satisfaction, long-term growth and extraordinary level of market orientation, where agreed upon by (Webster, 1995; Tuan, 2012; Faridyahyaie, Faryabi, Bodaghi Khajeh Noubar, 2012; Milichovsky & Simberova, 2015).

Based on the reviewed studies, there are various of number of definitions related to marketing effectiveness (ME), according to Ambler, Kokkinaki, Puntoni & Riley (2001) it had been defined as it determines the degree to which an organization's marketing actions have helped to accomplish corporate goals (Solcansky & Simberova, 2010; Daukseviciute *et al.*, 2011; Wali, 2018); Where according to Mavondo (2004) it describe organizations commitment for achieving short-term goals and long-term goals that directly impact businesses financial performance regarding growth rates, profits, market shares and competitive edge, where this description were agreed by

(Solcansky & Simberova, 2010; Daukseviciute *et al.*, 2011; Milichovsky & Simberova, 2015; Kayabasi & Mtetwa 2016; Wali, 2018). Besides, it had been described as the process that leads to continuous customers' value creations for business or corporate competitiveness (Wali, 2018).

While, according to Nwokah & Ahiauzu (2008), marketing effectiveness has been defined as the extent to which the organization obtains market share over competitors and advertises and promotes market share, where agreed by (Kayabasi & Mtetwa, 2016). Besides, marketing effectiveness is a conceptual construct that has been studied in relation to various criteria of organizational success includes sustainability, long-term growth, stability, customer satisfaction, competitive advantage, sales growth, market orientation and successful new product introduction (Tuan, 2012; Nwokah & Briggs, 2017).

Accordingly, Kayabasi & Mtetwa (2016) had defined marketing effectiveness as the organizations ability to encounter short-term goals that may positively affect organizations financial performance as enhancing profit margins, increasing sales and development of new products. On the other hand, Solcansky & Simberova (2010), had described it as its improving the quality of expenditure to achieve better results in both the short-term period and the long-term period, where agreed upon by (Faridyahyaie *et al*, 2012; Milichovsky & Simberova, 2015).

Furthermore, according to (Nwokah & Briggs, 2017) argued that organizations with high marketing effectiveness are those that are close to consumers, have a common set of values and also show an external market orientation. Besides, based on previous studies, it showed agree that organizations with high marketing effectiveness perform better compared to companies without (Nwokah & Briggs, 2017).

2.2.2. Marketing effectiveness components

Previous studies have shown that there are five components of marketing effectiveness conducted by Kotler (1977) which includes, customer philosophy, strategic orientation, integrated marketing organization, operational efficiency and adequate marketing information, where agreed upon by (Appiah-Adu, Fyall, & Singh, 2001; Daukseviciute *et al*, 2011; Tuan, 2012; Milichovsky & Simberova, 2015; Kayabasi & Mtetwa, 2016; Nwokah & Briggs, 2017; Okechukwu & Adiele, 2019); the following table shows various number of authors who agreed with Kotler (1977) and other changed in components name and number of the elements or components as follows:

Authors	Elements or Components
Kotler (1977) and other agreed with him (Appiah-Adu <i>et al.</i> , 2001; Daukseviciute <i>et al</i> , 2011; Tuan, 2012; Milichovsky & Simberova, 2015; Okechukwu & Adiele, 2019)	Customer philosophy, integrated marketing organization, adequate marketing information, strategic orientation and operational efficiency.
Kayabasi & Mtetwa (2016)	Customer philosophy, integrated marketing organization, sufficient marketing knowledge, strategic orientation and operational efficiency.
Nwokah & Ahiauzu (2008)	Customer philosophy, integrated marketing efforts, marketing information, strategic orientation and operations efficiency.

Table (1-1) Marketing effectiveness elements or components.

Source: The researcher - based on previous studies
2.2.3. Issues to be analyzed during evaluation of marketing effectiveness

Organizational should usually monitor the degree of marketing effectiveness (Kayabasi & Mtetwa, 2016). Some concerns should be analyzed when evaluation of organizations marketing effectiveness as follow: the degree to which the firm is considered to be customer-oriented; the extent to which different tasks are integrated with the marketing functions; the extent to which the effectiveness of MIS (Marketing Information Systems); as well as extent to which marketing plans are connected to the speed of marketing developments and marketing resources (Kayabasi & Mtetwa, 2016).

2.2.4. Measurements or Dimensions of Marketing Effectiveness

Based on previous studies, have provided various numbers of dimensions to measure marketing effectiveness, as researchers had various opinions about dimensions used for measuring marketing effectiveness for organizations. Where, according to Wali (2018) marketing effectiveness is measured through using those dimensions, customer satisfaction and customer retention. While Milichovsky & Simberova (2015) had measured marketing effectiveness using profits index and customers index (including customers' loyalty and satisfaction). Consequently, marketing effectiveness dimensions or measurements, according to (Kabue, Gathenya & Kihoro, 2014) are customer retention, customer satisfaction and high value of customers'. Besides, Solcansky & Simberova (2010) had measured marketing effectiveness with two metrics that measures organizations overall performance using two types of indicators or metrics which includes the financial indicator and the non-financial indicator.

On the other side, Nwokah & Ahiauzu (2008) used four dimensions for measuring marketing effectiveness which includes, the corporate, competitive, customers and exogenous factors, where agreed upon by (Daukseviciute *et al.*, 2011; Nwokah & Briggs, 2017; Okechukwu & Adiele, 2019).

Furthermore, Faridyahyaie *et al.* (2012) focuses on six categories for measuring marketing effectiveness which includes, the financial measures (profit and turnover), the competitive market

measures (market share and promotional share), the consumer behavior measures (consumer loyalty, penetration and customer gained), the consumer intermediate measures (satisfaction, brand recognition and purchase intention), the direct costumer measures (distribution level and service quality), and the innovativeness measures (new launched products and their revenues).

2.3. The relationship between perceptual mapping and marketing effectiveness

According to Gigauri (2019), perceptual mapping help organizations to understand and gain competitive advantage over the competitors; whereas, strategies created and taken upon perceptual mapping can provide organizations with high market shares, revenues and profits, as well as increasing customers satisfaction, loyalty and retention (Sinclair & Stalling, 1990; Sezhian *et al.*, 2014; Gigauri, 2019). Besides, the impact and the outcome of perceptual maps are considered dimensions of marketing effectiveness.

A study conducted by (Sezhian *et al.*, 2014), which focuses on evaluating customer expectations and satisfaction in public transport company, in India. The purpose of this study is determining the position of the three bus depots upon evaluating customer expectations and satisfaction using perceptual maps and to determine the best performing depot. As dimensions used for measuring perceptual maps was bus punctuality, seat comfort, lighting and entertainment, in-time issue of ticket, seating for

handicapped, cleanliness, driver behavior, issue of proper change, seating for elderly, backup service during breakdown, first aid facility, provision for luggage, new fleet addition, obey traffic rules, stopping bus at correct place, conductor behavior, issue of proper ticket, and information to passengers. The results conducted from using perceptual maps that each depot performances better upon certain dimensions or attributes that meets customers' expectation and satisfaction, for instance, for depot number one, performing in nine dimensions; for depot number two, performing in eight dimensions; while the for depot number three, performing in one dimensions only. The results showed that there is a relationship between determining depot performance and evaluating customers' satisfaction through using perceptual mapping technique.

Further, a study by Mina (2020), which focuses on identifying brand positioning of specific hygienic products in the Philippines which includes shampoo, toothpaste and bar soap. The purpose of this study is determining brand positioning using perceptual maps for future market development and product innovation for the mention three hygienic products; in addition to, identifying new market opportunities and market potentials. As the dimensions used for measuring perceptual maps for shampoo was gentle look, and shiny and soft, for toothpaste was menthol feeling and antibacterial, and for bar soap was clean and protection. Where the finding of this study recommended

organization's to use perceptual mapping to monitor customers' perceptions, preferences, and satisfaction levels, to determine market gaps and positioning and repositioning strategies.

Moreover, upon the research knowledge almost few studies had been conducted on determining the relationship between perceptual mapping and marketing effectiveness, almost the conducted studies discuss the relation between dimensions of marketing effectiveness and perceptual mapping, as no clear study that investigate this relation. Therefore, upon related literature, this relationship has not been sufficiently investigated well, which encouraged the researcher to study the relationship between perceptual mapping and marketing effectiveness.

3. Exploratory Study

After reviewing the literature, the researcher conducted an exploratory study because it's the basis for building the whole study. Exploratory study includes both the Analysis of Secondary Data which is related to the study and the Qualitative Research conducted through using unstructured and Semi-Structured questions through personal interviews with decisions makers and undergraduate students in Private Universities in Egypt. The aim of this exploratory study for the current study is to gain a deep knowledge and understanding of the research phenomena and variables under study.

3.1. Analysis of Secondary Data

Secondary data is the data that already exists, which are collected by others' for other purpose beyond the present study, besides it's composed of beneficial information for this study. The secondary data collected for the purpose of this study was collected from official website of Supreme Council of Universities (SCU) and official websites of several Private Universities in Egypt.

Upon data provided on the official website of SCU had presented different classifications of Accredited Private Universities in Egypt. Besides, these accredited private universities in Egypt for academic year 2022-2023 had reached 45, were these classifications are as follows:

1. Private universities (such as: 6th of October University (6OU), Misr University for Science and Technology (MUST), October University for Modern Sciences and Arts (MSA), Misr International University (MIU), German University in Cairo (GUC), Modern University for Technology and Information (MTI), Ahram Canadian University (ACU), The British University in Egypt (BUE), Sinai University, Future University in Egypt (FUE), Pharos University in Alexandria, Nahda University (NUB), Egyptian Russian University (ERU), Delta University for Science and Technology, Heliopolis University for Sustainable Development, Deraya University, Badr University in

Cairo (BUC), New Giza University (NGU), Horus University in Egypt (HUE), Egyptian Chinese University (ECU)).

- 2. National Universities (such as: Nile University (NU), Egyptian E-Learning University (EELU), French University in Egypt).
- 3. International universities with branches in Egypt (such as: The knowledge Hub Universities (Coventry University), University of Princes Edward Island Cairo Campus, University of Hertfordshire in Egypt, European Universities in Egypt including University of London and University of Central Lancashire (UCLan)).
- 4. *Universities of a special nature* (such as: Zewail City of Science, Technology and Innovation, Egypt Japan University of Science & Technology (E-JUST)).
- 5. Universities, academies and institutes with international and framework agreements (such as: The American University in Cairo (AUC), Senghor University, Technological University of Berlin in El Gouna (TU Berlin), Arab Open University, Eslsca Business School, The Arab Academy for Science, Technology and Maritime Transport (AASTMT), The Arab Academy for Management, Banking and Financial Sciences, Institution of Arab Research and Studies).
- 6. Universities where the list has been approved and studies have begun (such as: Al Salam University, El Salehya El Gadida University, Egypt University of Informatics, Shpinx

University, Badr University in Assuit (BUA), Merit University (MUE), May University in Cairo (MUC)).

The following figure shows these classifications:

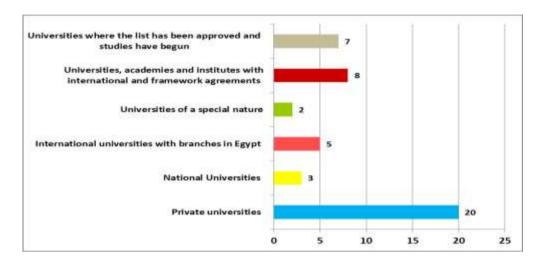


Figure (1-1) Classification of Accredited Private Universities in Egypt. Source: The researcher - based on Supreme Council of Universities in Egypt.

As shows in figure (1-1) the classifications of accredited private universities in Egypt where first classification which is private universities has the highest number of universities that's equal (20), followed by Universities, academies and institutes with international and framework agreements; Universities where the list has been approved and studies have begun; and International universities with branches in Egypt, that's equal (8,

7 & 5) respectively, and followed by National Universities and Universities of a special nature that equal (3 & 2) respectively.

Therefore, there is intense and continuous competition between private universities in Egypt, due to the increase in numbers of private universities; Where universities seek to discriminate themselves from others to gain competitive advantages, since there is aggressive competition between them in prices (tuition fees), positions, services and quality provided as well as foreign certificates provided by several private universities. Hence, this requires the use of a marketing tool such as perceptual maps to determine universities positions upon students' perceptions, in order to take suitable decisions regarding marketing, positioning and repositioning strategies and to achieve high level of marketing effectiveness.

3.2. Qualitative Research

An exploratory study had been conducted through qualitative research using semi-structured personal interviews (in-depth interviews) with two parties, the first one with owners and decision makers' in various number of accredited private universities in Cairo in Egypt, and the second one with undergraduate students in various number of accredited private universities in Egypt.

First, with (12) of owners and decision makers' in various numbers of accredited private universities in Cairo in Egypt. The indepth interview questions where unstructured and semi-structured questions. The interview included 14 open-ended questions that cover research variables understudy as degree of familiar and understanding of the perceptual mapping concepts, as identifying the importance and the uses of perceptual maps, in addition to determine main dimensions for perceptual maps in the Egyptian context, besides determining if private universities uses or applies perceptual maps in determining universities positions and in taking decisions and strategies, moreover determining key dimensions for measuring marketing effectiveness undertaken by those private universities which reflect their effectiveness. Each interview was around 60 minutes and somewhere more. The content of these interviews was documented in writing by the researcher to summarize and to analyze results.

Second, with (30) of undergraduate students in various numbers of accredited private universities in Cairo in Egypt. The in-depth interview questions where unstructured and semi-structured questions. The interview included 12 open-ended questions that cover research variables understudy as identifying main factor where students relay on when selecting private universities to be enrolled in; besides, to determine different levels of students' satisfaction in various number of accredited private universities. Each interview was around 60 minutes. The content of these interviews was documented in writing by the researcher to summarize and to analyze results.

Among the most important findings of the study for decision makers are as follows:

- The researcher found that the majority of decision makers in private universities are not familiar and aware with the concept of perceptual mapping, as well as lack of knowledge upon its uses and importance; on the other side, those who are familiar and had knowledge about the concept are not aware with its importance in determining competitive advantages and universities positions among competitors.
- Besides, dimensions of perceptual mapping may be used by decision makers in determining positions of universities without taking care that they are applying perceptual mapping dimensions, these results in an incomplete generation of perceptual maps. As the majority of decision makers determine universities positions strategies and marketing strategies upon universities image and reputation, academic quality, location and tuition fees.
- Moreover, marketing effectiveness dimensions were determined upon financial and non-financial measures.

Among the most important findings of the study for undergraduate students' are as follows:

 There are variances in students' opinion on factors for selecting the private university to be enrolled in, whereas, some students' agreed that universities prices (tuition fees) are the main determines for selecting universities, which in turns to level of income and unstable economic conditions. On the others had, some students' agreed that universities reputation and image are the main determines for selecting universities, as not caring about the quality provided and prices offered. Besides, other agreed that universities reputation and image and quality provided are the main determines for selecting universities and more important than other factors. While, various number of students agreed that tuition fees, location and like by the family as main determines for selecting private universities.

- There are variances in students' satisfaction upon quality provided and prices.
- Moreover, there are variances upon undergraduate students' opinions regarding main factors for determining their selection of private universities, were according to university image, quality of education, location or near to home, tuition fees and like by the family.

4. Further Research

In the framework of the findings of this study about the relationship between perceptual mapping and marketing effectiveness, the researcher proposes the following ideas when conducting future researches:

- This study can be applied in other geographic areas in Egypt (Such as Alexandria).
- This study can be applied using experimental or quantitative methods.

 Companies, organizations and institutions, should conduct marketing researches using perceptual mapping, to consider important attributes of their products, services and brand also, focuses on perception' of their consumer's to be able to success in the competitive markets.

5. References

- Alhakimi W. and Qasem A. (2014), An analysis of the use of marketing strategies by private universities in less developed world: the case of Yemen. *International Journal of Marketing Principals and Practices*, 1(1), pp.46-55.
- Appiah-Adu K., Fyall A., and Singh S. (2001), Marketing effectiveness and business performance in the financial services industry. *Journal of Services Marketing*, 15(1), pp. 18-34.
- Angulo-Ruiz F., Pergelova A., Cheben J., & Angulo-Altamirano E.
 (2016), A cross-country study of marketing effectiveness in high-credence services. *Journal of Business Research*, 69(9), pp.3636-3644.
- Ambler T., Kokkinaki F., Puntoni S., and Riley D. (2001), Assessing market performance: the current state of metrics. *London Business School*.
- Daukseviciute I., Valainis A. and Vilkaite N. (2011), Conceptualization of the effectiveness of Marketing Tools. *Intellectual Economics*, 5(2), pp. 200-211.
- Faridyahyaie R., Faryabi M., Bodaghi Khajeh Noubar H. (2012),
 Identifying Marketing Effectiveness Metrics (Case study: East Azerbaijan's industrial units). Poslovna Izursnost Zagreb.
- Gigauri I. (2019), Perceptual Mapping as a Marketing Research Tool for Brand Positioning. SSRG International Journal of Economics and Management Studies (SSRG - IJEMS), 6(4), pp. 73-79.

- Handayani T., Bernadindwi M. and Argo J. (2014), Positioning in selecting private university in Jakarata. *International Journel of Business and Commerce*, 5(6), pp. 79-90.
- Iacobucci D., Grisaffe D. and DeSarbo W. (2017), Statistical perceptual maps: using confidence region ellipses to enhance the interpretations of brand positions in multidimensional scaling. *Journal of Market Analysis*, 5, pp.81–98.
- Kayombo K. and Carter S. (2017), Competitive Positioning of a Higher Education Institution in Zambia: The Case of ZCAS, *Journal of Education and Vocational Research*, 8(2), pp. 6-21.
- Kabue H., Gathenya J. and Kihoro J. (2014), Customer Relationship Initiation Process and Marketing Effectiveness of Commercial Banks in Kenya. *International Journal of Business and Commerce*, 5(2), pp.1-14.
- Kayabasi A. and Mtetwa T. (2016), Impact of marketing effectiveness and capabilities, and export market orientation on export performance: evidence from Turkey. *European Business Review*, 28(5).
- Kohli C. and Leuthesser L., (1993), "Product Positioning: A Comparison of Perceptual Mapping Techniques", *Journal of Product & Brand Management*, 2(4), pp. 10-19.
- Kotler P. (1977), from sales to marketing effectiveness. *In Harvard Business Review*, 55(6): pp. 67-75.
- Kotler P. and Armstrong G. (2005), Principles of Marketing, 11th Edition, Pearson Prentice Hall.
- Kotler P. and Keller K. (2012), Marketing Management, 14th Edition, Pearson Education.
- Malonda A. and Pangemanan S. (2018), Perceptual mapping of mid end smartphone using multidimensional scaling analysis (case: oppo, Samsung, xiamomi, and asus). *Journal EMBA*, 6(3).

- Mavondo, F. (2004), Learning orientation and market orientation. *European Journal of Marketing*, 39(11): 1235–1263.
- Mina C. (2020), Brand Positioning of Hygienic Products Using Perceptual Mapping Technique. SSRG International Journal of Economics and Management Studies (SSRG-IJEMS), 7(2), pp. 150-158.
- Milichovsky F. and Simberova I. (2015), Marketing Effectiveness:
 Metrics for Effective Strategic Marketing. *Inzinerine Ekonomika Engineering Economics*, 26(2), pp. 211-219.
- Nestrud M. and Lawless H. (2010). Perceptual mapping of apples and cheeses using projective mapping and sorting, *Journal of Sensory Studies*, 25(3), pp. 390-405.
- Nwokah N. and Ahiauzu A. (2008), Managerial competencies and marketing effectiveness in corporate organizations in Nigeria. *Journal of Management Development*, 27(8), pp. 858-878.
- Nwokah N. and Briggs J. (2017), Internal Marketing and Marketing Effectiveness of Hotel Industry in Rivers State. *Journal of Human* Resource and Sustainability Studies, 5, pp.238-257.
- Okechukwu A., & Adiele K. (2019), Psychic distance and international marketing effectiveness of fast-moving consumer goods of multinational companies in Nigeria. *African Journal of Hospitality, Tourism and Leisure*, 8(1), pp.1-20.
- Prasad R. and Verma S. (2019), Industry Institute Perceptual Map (PM) and Management Students' Satisfaction Index (MSSI): A Road Map for Academic Excellence. *Indian Journal of Management*, pp. 21-30.
- Rachim T. (2016). Higher Education Strategic Analysis based on Perceptual Mapping of Prospective students in Bandung. 8th Widyatama International Seminar on Sustainability (WISS 2016), Widyatama University, pp. 5-8.

- Sezhian V., Muralidharan C., Nambirajan T. and Deshmukh S. (2014),
 Attribute-based perceptual mapping using discriminant analysis in a public sector passenger bus transport company: A case study. *Journal of advanced transportation*, 48, pp.32–47.
- Sinclair S. and Stalling E., (1990), Perceptual Mapping: a Tool for Industrial Marketing: a Case study, Journal of Business & Industrial Marketing, 5(1), pp. 55-66.
- Solcansky M. and Simberiova I. (2010), Measurement of marketing effectiveness. *Ekonomika ir vadyba, Economics and Management*, 15, pp.755–759.
- Suharja H., Rohayati Y., and Aurachman, R. (2019), Positioning Analysis for Higher Education Based On Perceptual Mapping Using Multidimensional Scaling. 9th International Seminar on Industrial Engineering and Management.
- Tuan L. (2012), Marketing effectiveness and its precursors. *Asia Pacific Journal of Marketing and Logistics*, 24(1), pp. 125-15.
- Ugurlu K. (2019), Use of Perceptual Maps in the positioning strategies of the accommodation facilities. *Journal of Social And Humanities Sciences Research (JSHSR)*, 6(33), pp. 495-509.
- Wali A. (2018). Customer Relationship Management and Marketing Effectiveness: A Comparative Consumer Study. *Paradigm*, 22(2), pp. 101-124
- Webster C. (1995), Marketing culture and marketing effectiveness in service firms. *Journal of Services Marketing*, 9(2), pp. 6-21.
- Yousafzai M., Khan M. and Khan U. (2017), Positioning of Private Sector Business Schools in Khyber Pakhtunkhwa: A Multidimensional Positioning Study. *Journal of Managerial Sciences*, 11(1), pp.51-69.

- Yumusak T., Yilmaz K., and Gungordu A. (2016), Perceptual Maps of Smart Phones with Multi-dimensional Scaling Analysis. *International Journal of Research In Social Sciences*, 6(5), pp.40-44.
- Supreme Council of Universities (SCU), https://scu.eg/