



The Impact of Marketing Knowledge on Customer Satisfaction with Mediating Role of Marketing Innovation: Evidence from Egyptian Real Estate Development Companies

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Abstract

The purpose of this research is to empirically investigate the marketing knowledge on customer satisfaction with mediating role of marketing innovation in real estate development companies in Egypt. The objectives of this research are: to investigate how marketing knowledge affect customer satisfaction, to examine how Marketing knowledge affect marketing innovation, to identify how marketing innovation affects customer satisfaction, and to investigate the mediation role of marketing innovation between Marketing knowledge and customer satisfaction using structural equation modelling. The methodology will be based on quantitative analysis by using a questionnaire tool to gather required data and structural equation model analyses (SEM) using AMOS software version 25. The main conclusions drawn from this study are: the direct effect between Marketing knowledge and customer satisfaction is statistically significant. the direct effect between Marketing knowledge and marketing innovation is statistically significant, the direct effect between Marketing innovation and customer satisfaction is statistically significant. Finally, the study found that the results of the mediation effect indicate that there is partial mediation effect of marketing innovation between marketing knowledge and customer satisfaction in Egyptian real estate development companies.

Keywords: Marketing Knowledge, Innovation, Satisfaction, Real Estate Development Sector.

Introduction

It is undeniable that there is significant knowledge revolution in the field of information specifically through the last few decades which has raised the question of "Who has the knowledge, owns the creative strength and competitiveness? In addition, modern organizations look at knowledge as the solid base for the concept of innovation, creativity and development. In addition, they consistently strive for efficacy, efficiency, and exceptional performance. As a result, it can be observed that firms continually develop objectives and products that meet the wants and desires of consumers in their target markets. In light of the knowledge economy and the market's feedback, it is essential for businesses to acquire renewable knowledge and build

* This article was submitted in February 2023 and accepted for publishing in April 2023.

© Arab Administrative Development Organization- League of Arab States, 2023, pp 1-10. DOI: 10.21608/AJA.2023.192237.1399

a high-value intellectual capital that gives them a significant competitive and effective advantage. (Abu Fara, 2004). In a global and dynamic market, businesses must constantly monitor and track the actual experience that their brand provides to customers (Meyer & Schwager, 2007). Despite prior research indicating that customer satisfaction has a positive impact on business results, many companies still struggle to implement strategies to achieve them (Borowski 2015; Meyer & Schwager, 2007). There has been little academic research on the types of innovations and customer satisfaction in real estate companies. Because of changes in consumer taste and demand, there has been a recent increase in awareness of innovation. Furthermore, innovation allows businesses to expand and maintain their market share (Baldassarre et al., 2017). According to Pitelis (2009), innovation is a powerful tool for businesses to create value and gain a competitive advantage. Innovation is a major shift that entails accelerating the development of new ideas and producing new products, services, and industrial processes (Nwachukwu, Chladkova & Fadeyi, 2018). Firms can produce value through creative actions to stay competitive. By maximising essential assets, resources, or opportunities, innovation allows a company to generate value from other enterprises. Companies can become more efficient and respond to changing market demand by implementing service, process, and marketing innovations. Service innovation benefits both the service provider and the customer, and it improves the service provider's competitive advantage (Hall et al., 2005). Process innovation is concerned with how products are made, supplied, and consumed (Trott, 2012). According to Prajogo (2016), process innovation refers to the unique strategy organisations employ to respond to market demand and opportunity. Because they have major strategic significance in producing competitive advantage for organisations, product and process kinds of innovation have dominated most discourse and empirical studies on innovations (Goedhuys & Veugelers, 2012). Marketing innovation focuses on the use of new marketing techniques as well as the efficient use of marketing resources and skills (Nwachukwu et al., 2018). Product design, packaging, advertising, distribution, and pricing of goods and services are all examples of marketing innovations (OECD, 2005). Customer satisfaction is an important metric for businesses to track. Customer satisfaction is a critical factor in achieving superior business performance (Pulles et al., 2014). Customers that are satisfied with the service will stay with the company for a long time. As a result, businesses must take an innovative strategy in order to boost consumer satisfaction and retain clients. A greater knowledge of how successful a company is at supplying products and/or services to its consumers can be gained by tracking customer satisfaction levels. The Overall aim of this study is to evaluate the impact marketing knowledge on customer satisfaction with mediating role of marketing innovation in real estate development companies in Egypt. The study is guided by the following objectives:

- 1- To investigate how Marketing knowledge affect customer satisfaction in real estate development companies in Egypt.
- 2- To examine how Marketing knowledge affect marketing innovation in real estate development companies in Egypt.
- 3- To identify how marketing innovation affects customer satisfaction in real estate development companies in Egypt.
- 4- To investigate the mediation role of marketing innovation between Marketing knowledge and customer satisfaction in real estate development companies in Egypt.

Literature Review

Marketing knowledge is considered as the independent variable, marketing innovation is considered as the mediator variable, and customer satisfaction is considered as the dependent variable.

Marketing Knowledge

Marketing knowledge has been conceptualized as "market information" which needs to be processed through knowledge acquisition, information distribution, information interpretation and organizational memory (Hanvanich et al., 2003). Rossister (2001) defined marketing knowledge as what marketing academics and consultants teach and marketing managers use in formulating marketing plans, and it must exist inde-

pendently of practitioners' ability to use it, so that marketing knowledge can be documented and shared between individuals. Marketing knowledge describes organized and structured information regarding markets, customers, competitors and trends. The term marketing knowledge management involves the generation, dissemination and storage of marketing knowledge. The process perspective of knowledge management holds that knowledge generation is the process by which knowledge is acquired. Meantime, knowledge dissemination describes the process by which knowledge from different sources is shared and creates new knowledge or understanding, and knowledge storage is the means by which knowledge is stored for future use (Tsai and Shih, 2004). According to Gold et al. (2001) marketing knowledge management grouped into four processes:

- 1- **Knowledge acquisition** which defined as the process by which knowledge is obtained. This process has many terms: generate, seek, and create. The creation of organizational knowledge requires the sharing and dissemination of personal experiences and it is partly based on an organization's absorptive capacity which is the ability to use prior knowledge to recognize the value of new information, and apply it to create a new knowledge and capabilities.
- 2- **Knowledge conversion:** is developing a framework for organizing and structuring the obtained knowledge from different sources to make the existing knowledge useful. This process promotes consistent representation, reduces redundancy, improves efficiency, and helps organization to replace knowledge that has become unusual.
- 3- **Knowledge application:** is the actual use of the knowledge including effective knowledge storage and knowledge sharing.
- 4- **Knowledge protection:** is the process by which knowledge is protected within an organization from illegal or inappropriate use or theft. Protecting knowledge from illegal and inappropriate use is essential for a firm to earn and maintain a competitive advantage.

Marketing Innovation

Researchers from several business and management disciplines have interpreted the idea of innovation differently (Carneiro, 2000). Economists examine marketing innovation from a product and process viewpoint, whereas marketing researchers conceptualise innovation from a commercialisation standpoint (Sood and Tellis, 2009). The research unanimously identifies innovation as a strategy that helps managers to effectively employ their resources to gain a competitive edge (Knight and Cavusgil, 2004). The breadth, usefulness, and long-term goals of an innovative marketing idea affect the value that all partners in the delivery chain need to produce (Royet et al., 2004). In an international context, the idea of marketing innovation merges marketing and sales philosophies (Gupta and Malhotra, 2013). The choice to deploy marketing innovation is influenced by value propositions and industry characteristics. It might be claimed that service sector companies are more likely to employ marketing innovation than industrial enterprises. According to Wang (2015), marketing innovation studies concentrate on three primary areas: "marketing innovation as a source of competitive advantages, marketing innovations and other forms of innovation, and the characteristics of organisations that employ marketing innovations." Two significant drivers of marketing innovation are "marketing insight" and "marketing imagination" (Linoff, 2004). Zuiga-Collazos and Castillo-Palacio (2016) suggest that innovative marketing strategies assist Colombian businesses in satisfying their customers. Likewise, Lee et al. (2015) found that marketing innovation increases customer satisfaction in Taiwan. Senguo and Kilango (2015) demonstrate a strong correlation between marketing innovation, customer satisfaction, and performance in Tanzania.

Customer Satisfaction

According to a research titled "Customer satisfaction in construction" by Karna.S et al. (2004), Finnish construction businesses have satisfied customers. The goal of the study was to investigate empirically the primary variables of client satisfaction and discontent. Customers were typically pleased with the contrac-

tor's cooperation skills and the talents of its employees and managers. In contrast, there was low satisfaction with regards to quality assurance and handover methods and materials. In "A study of customer satisfaction of residential buildings in India" by Mohammed Roshan et al., customer behaviour toward residential projects was the subject of additional research (2017). 104 respondents were asked to map their preferences for the developer-provided housing variable on a Likert scale as part of an opinion poll. The majority of respondents were dissatisfied with the service and maintenance support offered by the developers, as indicated by the mean values. The purpose of Ali et al(2021) 's study was to examine the factors that influence customer satisfaction while purchasing residential units. For the survey answer, a convenient sample of 94 customers was selected. The results indicated that any increase in indoor and exterior factors would have a beneficial effect, hence increasing the demand for apartment purchases. Piyush et al. (2016) focused on examining the factors that contribute to the satisfaction of residential flat customers in Surat and Ahmadabad. The majority of these customers were unsatisfied with a variety of purchase-related factors, according to the findings of this study. Omonori (2014) examined customer satisfaction in the Nigerian construction business in another report. The results demonstrated that the quality of a product or product is typically independent of its cost, and that quality is a prerequisite for customer satisfaction. Nasar et al., (2013) through their study analyzed the perception of customers regarding the services provided by Real Estate agencies in Kochi. This study considered six factors: i) Real Estate agent's goodwill, (ii) Real Estate property, (iii) information delivery, (iv) behaviour of agents, (v) punctuality, and (vi) emergency services. Among these, the Real Estate agent's good will turned out to be the most significant factor.

Conceptual Framework

Based on the literature review, the research conceptual Framework were formulated as below:

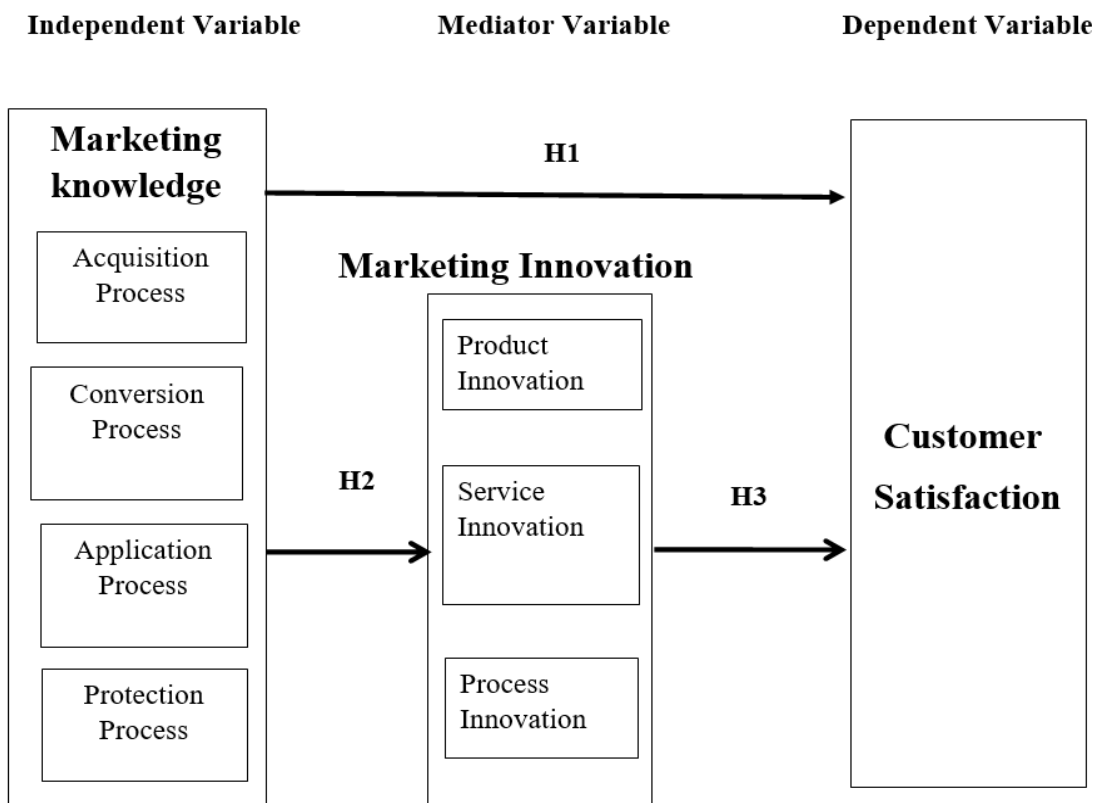


Figure 1- Conceptual Framework

Research Hypotheses

Based on the conceptual framework, the hypothesized model and reviewing of the related studies and theories, the study hypotheses were formulated as below:

- **H1:** Marketing knowledge has a positive effect on customer satisfaction in real estate development companies in Egypt.
- **H2:** Marketing knowledge has a positive effect on marketing innovation in real estate development companies in Egypt.
- **H3:** Marketing innovation has a positive effect on customer satisfaction in real estate development companies in Egypt.
- **H4:** Marketing innovation mediates the relationship between Marketing knowledge and customer satisfaction in real estate development companies in Egypt.

Research Methodology

For the purpose of this research, the research population refers to customers who deals with Egyptian real estate developing companies. The research questionnaire was administered to nine hundred (900) respondents, 505 questionnaires representing 56.1% were returned, and 43 questionnaires representing 4.8% were incomplete or ineligible or refusals and 395 (43.9%) were not reached. There were 462 acceptable responses, a response rate 51.3%, which is highly adequate for the nature of this study. In this Research Paper, the Amos 25.0 software package was used to perform the structural equation modelling (SEM) to investigate the inter-relationships between the constructs of the hypothesized model. Hypotheses Testing Following a confirmatory factor analysis, the valuation of the structural model through testing of the hypotheses underlying the research model is conducted.

Results and Findings

Composite reliability (CR) is used to measure the reliability of a construct in the measurement model. CR is a more presenting way of overall reliability and it determines the consistency of the construct itself (Hair et al., 2019). the CR of Acquisition Process = 0.883, Conversion Process = 0.875, Application Process = 0.837, Protection Process = 0.828, Product Innovation = 0.894, Service Innovation = 0.829, Process Innovation = 0.764 and customer satisfaction = 0.950. So, it clearly identified that in measurement model all construct have good reliability.

The average variances extracted (AVE) should always above 0.50 (Hair et al., 2019). Results show that average variances extracted (AVE) of the particular constructs (Acquisition Process = 0.605, Conversion Process = 0.583, Application Process = 0.564, Protection Process = 0.562, Product Innovation = 0.679, Service Innovation = 0.548, Process Innovation = 0.523 and customer satisfaction = 0.705) are more than 0.500. Overall, these measurement results are satisfactory and suggest that it is appropriate to proceed with the evaluation of the structural model.

Measurement model Results: The 8 factor was subjected to CFA using the AMOS software. DF was 129 (it should be more than 0), χ^2/DF has a value of 2.812, that is less than 3.0 (it should be less than or equal 3.0). The RMSEA was .062 (it should be less than 0.08). The TLI index was .941 which is very close to 1.0 (a value of 1.0 indicates perfect fit). The CFI was .950. All indices are close to a value of 1.0 in CFA, indicating that the measurement models provide good support for the factor structure determined through the CFA.

Structural model

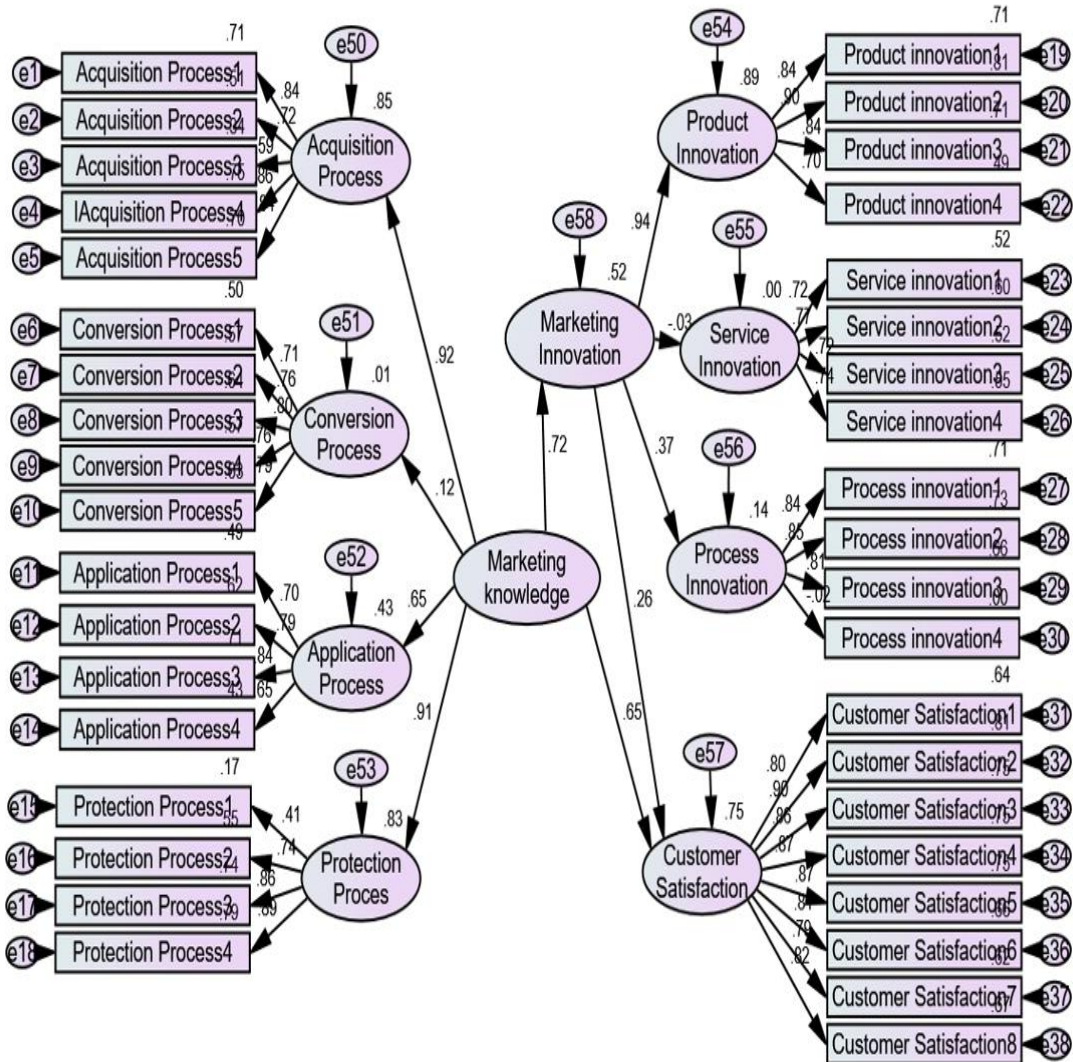


Figure (2) Structural Model (Final Result)

Structural model summary. The results of structural' model using the AMOS software, shows that DF was 656 (it should be more than 0), χ^2 / DF has a value of 2.540, that is less than 3.0 (it should be less than or equal 3.0). The RMSEA was .057 (it should be less than 0.08). The TLI index was .910 which is very close to 1.0 (a value of 1.0 indicates perfect fit). The CFI was .916. All indices are close to a value of 1.0 in CFA, indicating that the measurement models provide good support for the factor structure determined through the CFA.

Conclusion

This researcher explores the analytical part performed to test the hypotheses the researcher is seeking to fulfill the research objectives. A summary of findings and conclusion could now be presented.

Regarding the first objective: To investigate how Marketing knowledge affect customer satisfaction in real estate development companies in Egypt. Due to the individual tests of significance of the relationship between the variables. It reveals that, as expected a positive relation between Marketing knowledge and customer satisfaction ($\beta = 0.652$, CR (Critical Ratio) = 8.456, CR > 1.96, $p = 0.000$, $p < 0.05$).

Therefore, (H1: Marketing knowledge has a positive effect on customer satisfaction in Real estate development companies in Egypt.) is supported.

That result is consistent with Al-Hadrawi (2018) and Mehmood & Abedin (2017).

Regarding the second objective: To examine how Marketing knowledge affect marketing innovation in real estate development companies in Egypt. According to the analysis performed testing the relationship between the variables. H2: Marketing knowledge has a positive effect on marketing innovation in Real estate development companies in Egypt. is supported as the result shows that ($\beta = 0.723$, CR (Critical Ratio) = 13.189, $CR > 1.96$, $p = 0.000$, $p < 0.05$), as it predicts that "Marketing knowledge has a positive effect on marketing innovation in Real estate development companies in Egypt". That result is consistent with Jean, et. al., (2014); Alrubaiee, et. al., (2013).

Regarding the Third objective: To identify how marketing innovation affects customer satisfaction in real estate development companies in Egypt. The result shows that H3: Marketing innovation has a positive effect on customer satisfaction in Real estate development companies in Egypt. ($\beta = 0.265$, CR (Critical Ratio) = 3.038, $CR > 1.96$, $p = 0.002$, $p < 0.05$). is supported, as it predicts that "There is a positive relation between marketing innovation and on customer satisfaction". That result is consistent with YuSheng and Ibrahim (2020); and Castillo-Palacio (2016).

Regarding the Fourth objective: To investigate the mediation role of marketing innovation between Marketing knowledge and customer satisfaction in real estate development companies in Egypt. The results reveal a statistically significant indirect effect Marketing Knowledge and Customer satisfaction through marketing innovation ($P = 0.005$, $P < 0.05$). The results of the mediation effect indicate that there is partial mediation effect of the marketing innovation between the relationship of Marketing Knowledge and Customer satisfaction.

Discussion

This paper is conducted to empirically investigate the causal relationships between Marketing knowledge and customer satisfaction mediated by marketing innovation in real estate development companies in Egypt. A questionnaire is used for data collection and the Amos 25.0 software package was used to perform the structural equation modelling (SEM) to investigate the inter-relationships between the constructs of the hypothesized model. Accordingly, the study reveals that: the direct effect between Marketing knowledge and customer satisfaction is statistically significant. Therefore, the first hypothesis is supported. This result is consistent with Al-Hadrawi (2018). The direct effect between Marketing knowledge and marketing innovation is statistically significant. Thus, the second hypothesis is supported and this result is consistent with Jean, et. al., (2014). The direct effect between Marketing innovation and customer satisfaction is statistically significant. Therefore, the third hypothesis is supported and this result is consistent with YuSheng and Ibrahim (2020). The study also reveals a good contribution as the analysis indicates a partial mediation effect of marketing innovation between marketing knowledge and customer satisfaction. Considering the scarce empirical studies regarding these constructs in real estate industry, particularly in the emerging market context, this paper enriches the literature. This study shows that marketing knowledge, marketing innovation contributes to customer satisfaction. Therefore, Service innovation and Marketing innovations are dynamic capabilities that organizations must leverage. This study has practical implications for managers and their firms. To attract and keep customers, firms must provide innovative services more efficiently and effectively better than the competition (Feldman Barr and McNeilly, 2003).

Limitations and future directions

- First: Because this study was cross-sectional, it is not possible to investigate the nature of cause-and-effect connections between the variables. Future study should therefore focus on the requirement for a longitudinal strategy.
- Second: As a method of data collection, the questionnaire also had its limitations and could not examine all the information in detail. The answers in the questionnaire were based on the customers' perception and did not take into account deeper explanations and reasons for choosing the selected answers. Additionally, few papers have empirically investigated the elements presented in this paper, so not all factors could be compared with previous research to reach relevant conclusions. These limitations also represent recommendations and guidelines for future studies.
- Third, because this study's sample was limited to one nation (Egypt) and the real estate development sector, it is important to proceed with caution when interpreting the results. Despite the fact that the research context is extremely specialized, it is thought that the conclusions apply to various fields and nations.
- Fourth: a convenience sample approach was used to gather information from respondents over a predetermined period of time, which led to a limitation. The range of respondents who might participate was restricted by the short time window for data collecting. Because responses are acquired based on respondents' accessibility and may not give a representative sample, the convenience sampling approach used to gather responses may have also limited the range of respondents who would participate.

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