Does Customer Demand and Competition Affect Service Innovation and Product Performance? The Case of Jewelry Design Service Sector

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ABSTRACT

The jewelry industry, as one of the most significant sectors of luxury goods due to very high consumer demand in many countries is experiencing extreme changes. In addition competition and preferences, worldwide rise of domestic businesses, and advancement in new technology significantly transformed goods and processes.

This thesis empirically investigates the relationship between customer demand and competition as perceived enablers, service innovation and qunsiquently the product performance employing a self-structured questionnaire data. Specifically, linear regreesion and Moderate regression analyses are used to examine the role of enablers of service innovation in jewelry industry and in jewelry market.

The findings indicating that factor enablers have a positive effect on jewelry design service innovation, and jewelry design service innovation positively influences product performance, and there is a positive and significant relationship between the independent variable and dependent variable. Furthermore, the results revealed that the relationship between enablers and jewelry design service innovation is positively strengthened by economic factor, and the relationship between enablers and jewelry design service innovation is positively strengthened by knowledge-based network.

Keywords: Competition, Customer Demands, Jewelry Market, Product Performance, Service Innovation, Linear Regression

ÖZ

Kuyumculuk endüstrisi, birçok ülkede tüketici talebinin çok yüksek olması nedeniyle lüks malların en önemli sektörlerinden biri olarak aşırı değişiklikler yaşıyor. Ayrıca, rekabet ve tercihler yurtiçi işletmelerin dünya çapında yükselmesi ve yeni teknolojideki ilerlemeler mal ve süreçleri önemli ölçüde değiştirdi.

Bu tez, kendinden yapılandırılmış bir anket verisi kullanarak hizmet yeniliği ile ürün performansı arasındaki ilişkiyi ampirik olarak incelemektedir. Özellikle, Doğrusal regresyon ve düzenleyici regresyon analizleri, kuyumculuk sektöründe ve kuyumculuk pazarında hizmet yeniliğini sağlayan algılayıcılar olarak müşteri talebinin ve rekabetinin rolünü incelemek için kullanılır.

Faktör sağlayanların takı tasarım hizmeti yeniliği üzerinde olumlu bir etkiye sahip olduğunu ve takı tasarım hizmeti yeniliğinin ürün performansını olumlu yönde etkilediğini gösteren bulgular, bağımsız değişken ile bağımlı değişken arasında pozitif ve anlamlı bir ilişki olduğunu göstermektedir. Ayrıca, sonuçlar kişiler ile takı tasarım hizmeti yeniliği arasındaki ilişkinin ekonomik faktör tarafından olumlu olarak güçlendirildiğini ve olanak sağlayanlar ile takı tasarım hizmeti yeniliği arasındaki ilişkinin bilgi tabanlı ağ tarafından olumlu olarak anlam kazandığını ortaya koyuyor.

Anahtar Kelimeler: Rekabet, Müşteri Talepleri, Mücevher Piyasası, Ürün Performansı, Hizmet İnovasyonu, Doğrusal regrasyon analizi

To my family

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Chapter 1

INTRODUCTION

1.1 Introduction

Literature lacks a commonly accepted definition of a "Luxury Product" (Godey et al., 2013) whilest several physical and psychological values are represented at highest by many brands globally. Goody (2006) defined the term "Luxury" as perceived notion of refined enjoyment of elegance, of things desirable but not essential, which now many market researcher find it attractive for business growth and sustainability. According to Wiedmann et al. (2007), luxury is defined as a subjective and multidimensional construct. Luxury goods often include accessories, apparel, handbags, perfumes, shoes, watches and jewelry. These mentioned items are basically used to bring a distinctive, exceptional or unique prestige to owners creating a division from others in terms of personality and social class through a form of display referred to basic ownership or basic use, despite their utilitarian characteristics (Gao et al., 2009; Godey et al., 2013; Zhang and Kim, 2013).

Nueno & Quelch (1998) asserted that luxury goods usually have a sense of exceeding and are commonly found to be expensive for the individuals. These authors also believed that eventhough this claim is criticized if a certain luxury product possess the special features of uniqueness along with a recognizable style, a legendary craftsmanship, uniqueness, premium price and global reputation. The general belief merely suggest that luxury goods and products can be categorized by unique design,

higher price, scarcity and material exclusivity, excellent quality, ancestral heritage and personal history, aesthetics or poly-sensuality as well as superfluousness (Dubois et al., 2001). But later on, Wilcox et al. (2009) argued that consumers usually buy luxury goods primarily for symbolic reasons to persue and reflect their unique individual or social goals. Nevertheless, because the term luxury is a subjective concept (Phau & Prendergast, 2000) any perception across nations themselves or segments of their markets cannot be found consistend. Bian & Forsythe (2012) claimed that real perceptions are highly dependent on each consumer's perception of indulgent value (Bian and Forsythe, 2012). To various people, social impact and reflections of a luxury product such as the popularity or exclusivity, as well as conspicuousness might be of particular importance, as they are perceived as a symbol of class, social and wealth status and a specific membership to a group whereas, others might consider this act a financial investment and an opportunity reaching standards of life and with superior quality (Khan et al., 2017; Wiedmann et al., 2007).

Most businesses offering luxury products including jewelry could obtain tangible feasibility in different ways from a service-based strategy. Referring to Grönroos (2007), a firm that adopted such strategy is found to have excelled in not only the production, but in delivery, sales and service systems. Various academic literature found it to be a simple implication for managers, yet it encouraged academicians, scholars and descion-makers to arouse a growing interest in service innovation in diverse industires. For further reading it is suggested to review the work of Miles (2005), Tipu (2011) and Durst et al. (2015).

The global economy is increasingly becoming dominated by the service-oriented activities due to the fact that this division is capable of promoting the development of

new services as well as new methods of enhancement via service innovation plans and efforts. Considering the service sector in contemporary market and economy that is subjected to vast and significant growth, the notion of service innovation is of great concern. When it comes to areas of expertise where by means of innovation and increasing product performance, an added value is created for customers, service innovation is found to be the primary source of such achievement by Chen et al. (2016), Melton & Hartline (2010), Menor & Roth (2008), Möller et al. (2008) and Spohrer & Maglio (2008) Wang et al. (2015) and Zhang et al. (2015).

Flikkema et al. (2007) asserted that formulating a theory on service innovation, however, is yet new and requires new focused definitions and is found rather ambiguous. For instance Menor et al. (2002) argued that in some cases, this vagueness is revealed from the interchangeable function and application in of terms usefulness regarding new service development (NSD) and service innovation. Additionally, in earlier years of 1930s Schumpeter (1934) suggested that as an invention which had not been successfully introduced on the market, service innovation is also used to dominate a novel sort of servic. That is in addition, divserse and in some cases creates dispare views with consideration on how new an innovation can or requires to be on perceieved value evaluation with positionning on product performance (Skålén et al., 2014; Toivonen & Tuominen, 2009).

The nature and type of customer demand and competition as well as purchase intentions used by individuals purchasing luxury goods such as a piece of precious jewelry, is recently under focus as a subject for research. It is argued that consumers make their purchase decision on the basis of their demand, competition, evaluation of, and knowledge about, the product attributes. As a result of this trend, customers with

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higher income are expected to have higher requirements. For jewelry products industry, this is an opportunity as well as a challenge.

Bian and Forsythe (2012) argued that the factors driving demand for luxury goods among consumers cross cultural studies are found to be significantly different. Since it is essential for a successful business strategy to have a clear understanding of determinants influencing purchasing intentions of luxury goods consumers, in these authors' research underlying motives of luxury goods consumption is vividly studied.

The jewelry industry, as one of the most significant sectors of luxury goods, is undergoing major changes in most countries due to very large customer demand, competition and market preferences, worldwide rise of domestic businesses, and advancement in new technology significantly transformed goods and processes.

Therefore, this study will look into the significance of customer demand and competition in jewelry buyers and the effects of jewelry design service innovation on product performance.

1.2 Aims and Objectives of the Research

In this research, study that "how a jewelry consumer develops a demand" and "how the service innovation in jewelry design effect the product performance" will be explored and further discussed. Therefore, demand and competition of jewelry consumers will be studied. In the proposed model a jewelry design service innovation is influenced by factors like demand and competition.

In most countries, more competitive and sophisticated is getting the luxury products market. In order to boost the customer feedback from this market including jewelry, one maty require to gain thourough intuitions into the customer essence, thus different

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kinds of brands are given the chance for sales improvement (D'Arpizio, 2014). Over the years, sales of jewelry products illustrated an insignificant yet constant growth. On the other hand, sales figure for luxury goods are subjected to a more significant growth as luxury products' innovation, creativity and development are adjusted, where majority of customers regardless of their financial power or social standing, are willing to spend a large amount of money on luxury goods and products like jewelry to enhance their status. Almost all jewelry consumers despite their financial power or social level, have eager intentions to pay a premium value on a luxury product in order to elevate their social status and class. Almost all jewelry customers to share a common values and attitudes in terms of purchasing behavior (Husic & Cicic, 2009). As a result, in a progressive market, one should understand the different factors of status consumption as a noticeable factor in increasing market share (Chan et al., 2015).

The main objectives of this study are as follows:

1) To analyze the effect of service innovation in jewelry design service innovation (JDSI) on product performance (PPR); and

2) To identify the factors influencing the jewelry design service innovation.

3) To identify the effects of two moderators, economic factor (EFC) and knowledge-based network (NBN) on relationship between independent variables (enablers (ENA): demand and competition) and jewelry design service innovation (JDSI).

1.3 Significance of the Research

There are two major aims in this study that are covered: (1) the relationship of service innovation on the product performance (2) the role of customer demand and competition as perceived enablers of service innovation in jewelry industry and in

jewelry market in Asian and African middle income countries (Algeria, Azerbaijan, China, India, Iran, Iraq, Jordan, Kazakhstan, Libya, Lebanon, Pakistan, Russia, Turkey, Ukraine, Syria, Morocco, Cameron, Nigeria, Tunisia, Ghana) according to World Bank Country (Classifications, 2018). Because their income is at the middle level, so they will pay more attention to their purchase, especially to buy a luxury product such as jewelry.

The empirical findings from this study will shade light on how customers perceive jewelry products reffering to service innovation, price and quality, and how satisfied they are with the product performance and services they receive from the jewelry market, and, which factors influence the decision making process of customers. Therewith, it can function representing framework to jewelry industry to test if it could offer strategies and structures to improve and retain consumers. This will also help the producers and sellers to discover solutions to overcome low sales margins, and more impotatnly consumer behavior analysis towards the purchase intention and process of jewelry products.

Besides, this study can provide strong theoretical backing to customer behavior analysis within the jewelry industry. Although some research has been conducted in different countries which sought to explore the factors influencing the customer demand and competition in jewelry design service innovation, majority of this study is and therefore is not providing any theoretical backing. Hence, this study can make a valuable contribution not only to the literature, it can be a foundation for providing theoretical backing for any further research into similar field but important and influential industry in selected case countries. Producers of jewelry are well familiar with the selection process and purchase behavior of customers. To leverage this,

scientific research is necessary to find out more facts about the factors influencing the demand and competition of customers to increase the effectiveness of business strategies. Additionally, the purchase activities regarding the jewelry is found usually complex, including numerous steps where many are not considered in this study.

In general, reliable and credible data are limited specific to the jewelry purchase activities and behavioral studies due to the somewhat informal nature of this activity among respondents from selected case countries. Studies covering even basic information regarding purchase activities, such as quantity, whereabouts, and amount of purchases, are particularly lacking for special products of jewelry. Considering the absence of such forceful data and literature the data was collected by distributing a self-structured questionnaire among respondents from the case countries.

1.4 Hypotheses

Given the nature of this study to be a quantitative study, a set of total 4 hypotheses are tested in this research to study the effect of enablers factors on jewely design service innocation and their significant effect on novel product performance.

1.5 Contribution of Study

The present study will add knowledge to the current wave of research where empirical evidence and findings using data related to service innovation of jewelry industry to study the effects of enabler factors, limitations and outstanding outcome of a service innovation in jewelry industry.

1.6 Structure of the Study

This study has five chapters in total. Chapter one consists background of the study. The second chapter covers the introduction to the present literature in the subject of Customer Demand and Competition affecting Service Innovation and Product

Performance in the case of jewelry design. In the third chapter, the methodology of research which is utilized to measure the aim of research will be presented. Chapter four discusses the empirical result. Chapter five consist of the finding following by a discussion, implications, and future research recommendations.

Chapter 2

LITERATURE REVIEW

2.1 Background

For the time being, manufacturers are frequently goving forward to a business environment which is often categorized by the ability to perform business via inlfluential channels to attract orders on customer demand where a dynamic and progressive value-adding negotiation is undertaken into the account of additional factors such as competition, price, time, sustainability, and so forth. On the other hand, some firms are offering not just a mere product, but a service considered to be a product (Papazoglou et al., 2018). Services are often characterized as not tangible or products that serve only as informational knowledge, any arguement on the subject of service innovation could create a formulation of different kinds of innovation drawn back from definitions are only based on products (Miles, 2008).

Channels offering innovation are largely attracting the focus and attention of both academicians, scholars and policy-makers to cope with the amplyfying, diverse and intensive knowledge as a proper solution and face never-ending costs of research and development activities simultaneous with internationalization approach that are dynamically costly and extremely rigid for a firm intending to act creatively and to be groundbreaking (Najafi-Tavani et al., 2018).

All these changes necessitate the use of a novel production process to stimulate and motivate personnel and machinery, join them with data and system to provide better opportunities for all groups of customers to interact with manufacturer and co-design – in cooperation with product engineers and analysts – customized products and new innovative services in order to enable them to maximize consumer and customer satisfaction, as long as operational and product performance effectiveness efficiency is maintained. Therefore, consideration and attention to the enabler factors like customer demand, competition and manufacturers across the different phases of product and service lifecycle can significantly aid prospering service innovation, product performance and product design.

To very modest sense, innovation and its benefit is often calculated in economic value for success of a business, despite many changes in recent literature. As a result, scholars like Lusch & Nambisan (2015) and, Michel et al. (2008) instead of defining values from the perspective of customer, have studied this topic as sequeling conclusion. The main result of this approach results in understanding the fact that the definition for service innovation that is mentioned earlier is limited and generalized. In simple terms the findings clarifies that the service is not feasibily effiecient for a firm or business despite the fact that with introduction of a new service result in creating significant benefits for customers. Considering a community, any novel innovation in welfare system leads to incremented costs for the community yet welfare condition of habitants in the metropolitan are improved susbtantially. Addtionally, with the lump tendency towards innovations offered for free, where the ultimate outcome for the firm is just essential enjoyment of attracting satisfaction and

contemporary authentication, as opposed to financial income (Von Hippel, 2005; Witell et al., 2016).

In order to help firms increase efficiency and performance, according to Barney (1991) activities or methods that are considered hard for competitor firms to copy or pursue should include elements of tangible competence, implicit knowledge and assets. To obtain such an objective, a business with focus on service must define and explore the potential core capabilities by clustering actions with operations and methods that are embedded in its service chain to sustain the competitive advantage (Vargo & Lusch, 2004).

This chapter provides detailed information about the theoretical framework of research, issues related to service innovation in jewelry design service innovation (JDSI) on product performance (PPR), factors influencing the jewelry design service innovation, as well as the factors like knowledge and consciousness of customers in jewelry purchase process.

2.2 Theoretical Framework

In this section, theoretical framework of the thesis is covered. Initiatives of the model are Enablers factos that are discussed in the following section. Enabler factors are suggested to be transparent in a business environment, the reason is not limited to the fact that these factors are forming knowledge still they encourage individuals to share what is expected and learned with each other (Yeh et al., 2006). For this research, customer demand and competition are considered as the main enabler factors in regarding the aim of study. These factors are further discussed in the following section.

2.2.1 Customer Demand

The customer demand knowledge is variable about customer consumption preferences and consumption behavior that are necessary to identify customer demand. However, in the actual environment of marketing, not only the preference cannot be defined by customers exactly, but also the preference is erratic (Yajing, Jiayin, Huaying & Jing, 2017).

A business with focus on customer's perefernces follows a model that is tailored to meet demands and needs that results a major shift in the production methods (Papazoglou et al., 2018).

The complexity of customer demand discrimination is usually revealed in two separate aspects: firstly, a customer may belong to multiplex groups and categories that are simply classified by demand attributes. Secondly, there exists uncertain relationships between the customer demand attributes and factors influencing consumer decision-making process. So, the customer demand discrimination is a subject of customer classification under uncertain conditions (Yajing, Jiayin, Huaying & Jing, 2017).

2.2.2 Market Competition

A vast area of economic literature covers the arguments that competition among firm's benefits consumers via lower prices. This competition can provide different benefit opportunities for consumers in other ways as well: competition may result in design and manufacture of a variety of products, better quality of design and production, and greater innovation, which drives productivity growth and helps lift the standards of life (Kovacic and Shapiro, 2000, Aghion et al. 2005; Shapiro 2012).

On such occasion where competition is at its lowest, on such provision that prices are raised, or an entry by entrepreneurs are blocked because of a firm's use of monopoly and position, consumers are often made worse off (Council of Economic Advisers, 2016). Thus the following hypothesis was proposed:

H1: The enablers (Customer Demand and Competition) have a positive significant effect on Jewelry Design Innovation.

2.3 Service Innovation

The emerging trend in internationalized economy is stiring from the customery methods of production to a service-centered economy in these past decades.

Paton and McLaughlin (2008) argued that economy is dominated by service sector. Over the past two decades, the emerging trends in the global economy has gradually shifted from the traditional methods of producing goods toward a service-centered economy. Remarkably, more than 70% of the global economy's GDP (gross domestic product) is obtained from this sector now, thus, service innovation significantly ensure opportunities, creativity and activities for global economy (Ostrometal., 2010; Chen et al, 2015).

In this regard, the work of other scholars like Den Hertog (2000) for instance provides development of a model with four variables. The main scope is coverage of service innovation in an economic environment that is knowledge-based. The mentioned model consists of: (1) Service concept (2) Client interface (3) Service delivery system, and (4) Technology. Service concept refers to novelty of the service in the specific market. Any new methods engaged in production of specific service that customer has an interaction with is considered client interface. The service providers also require

additional elements to reach customers in a form an organized system that is called service delivery system. Finally, to ensure an efficient delivery of such composition, technology plays an important role. This is the multidimensional nature of service innovation. Toivonen & Tuominen (2009) practiced a set of five processes regarding collaboration and formality of service innovation. This illustrates how the earlier model can be conducted actually. The practice follows these five: (1) internal processe (2) internal innovation project (3) innovation project with pilot customers (4) innovation projects tailored for a customer, and (5) externally funded innovation project (Durst et al., 2015).

To interpret such mentioned practice, in the first step the focus is on the development of the current service, then as of second step any sets of action (forming a project) is undertaken to increment the production system and content. Clients are selected to further test the outcome of novel ideas from first two processes. The fourth process is mainly dedicated in offering solutions to solve a particular client's issue. The final process is a collaboration in form of research striving to generate new service concepts and/or platforms.

2.4 Product Performance

Most manufacturing firms are initiating plans for integration or combining services and products. When it comes to areas of expertise where by means of innovation and increasing product performance, an added value is created for customers. This increase in product performance leads to competitive advantage (Chen et al, 2016).

The measurement of product performance is a subject that is very complex and often considered costly. Simply because of various of concepts such as distinctivity of consumers, and definitions such as roles of performance; measuring product

performance becomes sophisticated when considering the inherent intangibility, uncertainty, formality, and multi-functionality that in inherent in contemporary new product development efforts (Tatikonda, 2007).

2.5 Impact of Service Innovation on Product Performance

Upon the review of available work of scholars, despite the fact that some results are inconsistent, a remarkable number of research provided solid evidence that service innovations through channels have positive and significant impact on a novel product perfromance (Belderbos et al., 2004; Clauss & Kesting, 2017; Faems et al., 2005; Freel, 2003; Heirati et al., 2016; Luzzini, et al., 2015; Najafi-Tavani et al., 2018; Nieto & Santamaría, 2007; Tavani et al., 2014).

Service Innovation are considered as a set of improvements in technology innovation, social-organizational innovation, model development, and demand development in consists of main aim of altering current services while offering new values, or developing new service systems (IFM and IBM, 2008; Chen et al., 2016). Accordingly, the following hypothesis was planned:

H2: The Jewelry Design Innovation has a positive significant effect on New Product Performance.

2.6 Economic Factors in Jewelry Purchase

Buying jewelry usually compensates a consumer demand. For low and medium income class, it can be an investment. But, for high income class it can serve other motives. Nia & Zaichkowsky (2000) noted that high income class often purchase jewelry to display their social class, or a desired image. This image is exaggerating enough to proof that such highly priced item is affordable by them.

Therefore, the purchase and consumption of jewelry products is both an economic and a cultural activity. There is an extensive body of literature in the field of jewelry products, but the theoretical debate around 'jewelry as an art product' is hindered. This is mainly due to the fact that certain players influence and manipulate the mechanisms in jewelry production because of its high value in the market.

For a long time, countercultural and avate-gard art productions was considered consistent to fluctuations and market forces, until very recent (Lloyd, 2006; Molnár, 2017; Reinecke, 2007; Scott, 2001). On the other hand, consumption of luxury products like jewelry is determined by how consumers' attitudes serve as functions such as social funtions (in terms of an attitude of self-presentation or self-expression) where an individual try to feel unique and present a desireable social class by possession and use of a luxury products (Wilcox et al., 2009). Additional literature also suggest that in both Eastern and Western countries luxury products are purchased to display a self-image and social class, as a result of both shortage and unique values that is created for customers (Nueno & Quelch, 1998; Vigneron & Johnson, 2004). This attitude motivates a self-expression attitude (Katz, 1960). And on top of that, jewelry products are capable of symbolizing status classifications and social group belongingness that strengthen social image, resulting a self-presentation attitude (Park et al., 2008; Snyder & DeBono, 1985).

Although traditional view suggests that jewelry products mainly represent exclusivity, quality and higher social status, and other motivess including hedonism and perfectionism (Vigneron & Johnson, 1999; Ebenkamp, 2004) and as mentioned earlier according to a certain income level is considered as an investment. Hedonistic customers often have emotional attachment to jewelry products that is fulfilled via

purchase behavior (Hirschman & Holbrook, 1982). On the other hand, perfectionist customers presume that jewelry have approximately higher quality standard and is worthier. As a result, instead of a function, this higher quality and price exhibits the vital subjective to these customers. (Gentry et al., 2001).

Level of income is commonly accepted by scholars to be a key determinant upon investigating purchase of jewelry products as it is responsible for a number of social and utilitarian outcomes (Husic & Cicic, 2009; Dubois & Duquesne, 1993). Another predictor of jewelry purchase is age that is proved to be significant. Being one of the demographic characteristics, it is witnessed that jewelry is often purchased by young customers as a mean to identify a social value. (Park et al., 2008; Yeoman, 2010). Thus, the following hypothesis was proposed:

H3: Economic Factor moderates the effect of enablers (Customer Demand and Competition) on Jewelry Design Innovation.

2.7 Knowledge-Based Networks

It was earlier mentioned that the main scope is coverage of service innovation in an economic environment that is knowledge-based. A challenging and crucial activity by policy-makers and firms is knowledge management (KM). It has become a widely important task due to the usefulness and competitive advantage it provides in business transformation, if applied and comprehended appropriately (Jennex, 2007).

Knowledge-based networks enable an organization to have a learning curve and path of its own with available resources. Design and implementation of a knowledge-based network is a hot topic in business. As a matter of fact, determinants of knowledge-based initiatives are taken into consideration very often recently. Knowledge-based

initiatives or enablers refer to a mechanism for a firm to blossom its knowledge and also stimulate the creation of knowledge within the organization as well as the sharing and protection of it. Enablers are foundation to development of efficient tasks and objective to KM (Ichijo et al., 1998; Stonehouse & Pemberton, 1999). Therefore, the following hypothesis was proposed:

H4: Knowledge-based Network Factor moderates the effect of enablers (Customer Demand and Competition) on Jewelry Design Innovation.

2.8 Research Model and Hypotheses

In this research, the proposed model and related hypotheses are stated as whether customer demand and competition have a significant effect on jewelry design service innovation and the second hypothesis is whether jewelry design service innovation has a significant effect to improve the product performance for jewelry customers. The general process of this study can be illustrated in Figure (1) as below:
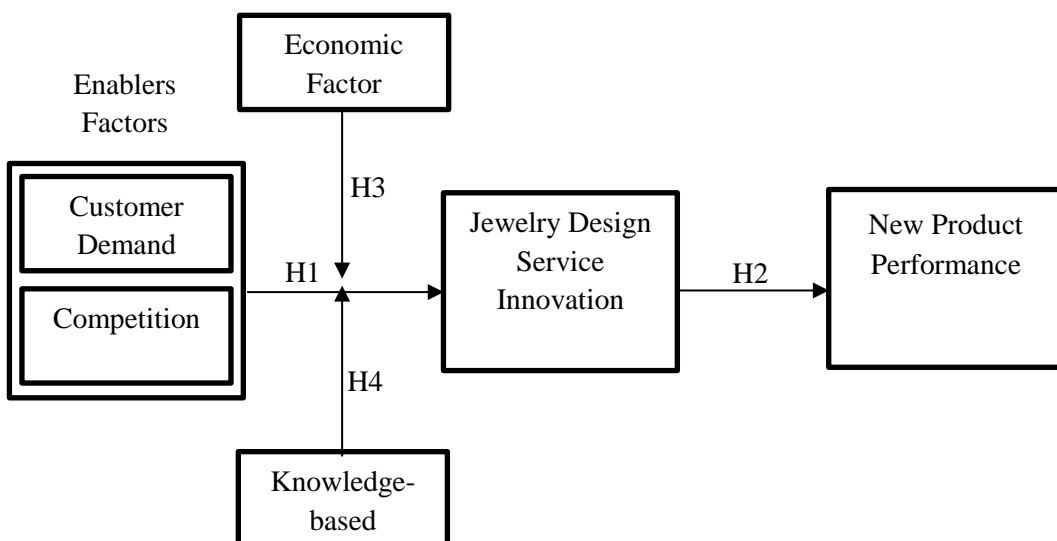
Figure 2.1: Reseach Model (Chen et al.,2016; Thakur & Hale,2013)

Hypothesis 1: The enablers (Customer Demand and Competition) have a positive significant effect on Jewelry Design Innovation.

Hypothesis 2: The Jewelry Design Innovation has a positive significant effect on New Product Performance.

Hypothesis 3: Economic Factor moderates the effect of enablers (Customer Demand and Competition) on Jewelry Design Innovation.

Hypothesis 4: Knowledge-based Network Factor moderates the effect of enablers (Customer Demand and Competition) on Jewelry Design Innovation.

Chapter 3

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the methods that were used by the study to achieve its set of objectives through presenting research design is outlines including a description of the population, method of data collection, and data analysis.

3.2 Research Design

In this research, the main objective is to study 'how a jewelry consumer develops a demand and how the service innovation in jewelry design affects the product performance. Therefore, demand and competition of jewelry consumers is studied as enablers. It was proposed that a jewelry design service innovation is influenced by factors like demand and competition. Therefore, a questionnaire developed according the model regarding service innovation, knowledge-based network, economic factors, product performance, financial outcome (FO) and enablers (Customer demand & competition) on jewelry market was prepared and distributed among participants in North Cyprus.

3.3 Sample and Data Collection

As mentioned before, this study was conducted in North Cyprus. The sampling method used for this research to collect data from population members was based on convenience sampling which is a non-random sampling technique. The questionnaire was distributed among people in universities or other public places. The topic of questionnaire and the aim of the study were fully explained to the respondents. The

questionnaire used in the examination was divided into two sections; section one specifically targeted the participant's opinion regarding relationship between innovative jewelry design service and new product performance in North Cyprus. While the second part particularly focused on the demographics and personal information. Being an important factor in this research, all respondents identity are kept confidentional. A total of 260 questionnaires were distributed and collected. from a total number of 241 questionnaires which were distributed.

3.4 Questionnaire Development

For the purpose of study, the survery questionnaire was developed based on the literature review on service innovation in jewelry design service innovation (JDSI) on product performance (PPR), factors influencing the jewelry design service innovation, as well as the factors like knowledge of customers in jewelry purchase process by 1-5 Likert Scale.

In general, reliable and credible data are limited specific to the jewelry purchase activities and behavioral studies due to the somewhat informal nature of this activity among respondents from selected case countries. Studies covering even basic information regarding purchase activities, such as quantity, whereabouts, and amount of purchases, are particularly lacking for special products of jewelry. Considering the absence of such forceful data and literature the data was collected by distributing a self-structured questionnaire among respondents from the case countries.

3.5 Data Analysis

Based on the collected data, various analyses carried out in order to analyze the data. The analyses include descriptive analysis, correlation analysis, reliability test (Cronbach`s Alpha) and multiple linear regression. Cronbach's alpha is a convenient

test used to estimate the reliability, or internal consistency, of a score. Cronbach's alpha gives us a simple way to measure whether or not a score is reliable (Nunnally, J. C ,1978; Bonett & Wright, 2014).

In this case, Correlation analysis was also done in order to define the intensity and direction of the linear relationship that exists between two variables. Since at this research we have multiple items measuring the same underlying construct, Cronbach's alpha is very suitable. Besides, with regression analysis being a powerful statistical method, researched is given the chance to analyze and test any relationship between two or more variables of interest. Referring to the aim of this research the influence of independent variables on new product performance is examined. In addition to test the direct relationship among variables for testing H1-H2, multiple regression analysis was utilized to check the moderation effects of EF and NBN, H3-H4.

Descriptive analysis was also conducted in order to obtain respondents` demographic information

Chapter 4

FINDINGS AND RESULTS

4.1 Data Collection and Sample Profile

A total of 260 questionnaires were distributed to international students of Eastern Mediterannean University of North Cyprus, where 241 reliable responses are considered for further analysis with the response rate of 94.2%. In terms of general observation, a share of 54.7% of respondents are male. The finding also presents 11.4% of students are less than 20 years old and 71.8% are aged between 20 to 30 years, ranged from 30 to40 showed 15.5% and the rest were 40 to over 50 years. In terms of education level 15.9% of the respondents have PhD, while the majority of the respondents (40%) had bachelor degree. Furthermore, 24.5% of the respondents had M.A and the rest had been Diploma. result showed the major of respondent were Iranian with 24.1%. in addition, many of the respondents earned between 200-400$ monthly.

4.1.1 Gender

According to the data collected, it is founded out that students' respondents were males 134 and 111 of respondents were females with the percentage of 54.7 % and 45.3 %, respectively. The following pie chart illustrates the distribution of gender.
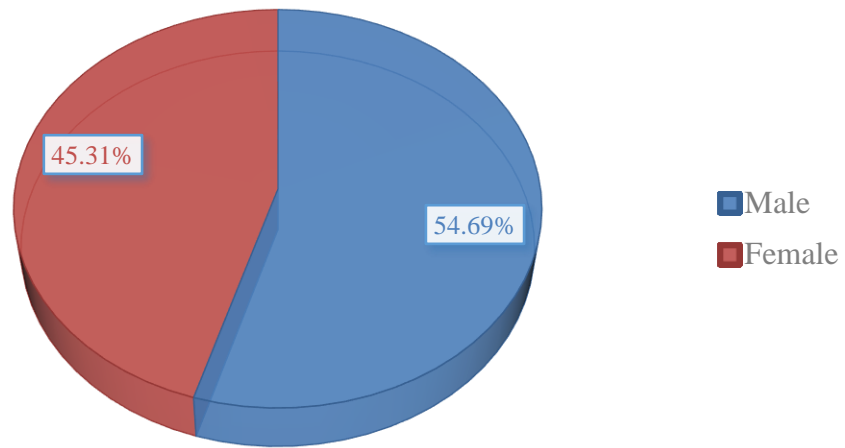
Figure 4.1: Gender Distribution

4.1.2 Age

Affording to the data collected, it is founded out that students' respondents were below 20 with 11.4%, between 20 and 30 years with 71.8%, between 30 and 40 years with 15.5% and the rest of respondents were 40 to above 50 years old. The following pie chart illustrates the distribution of age.
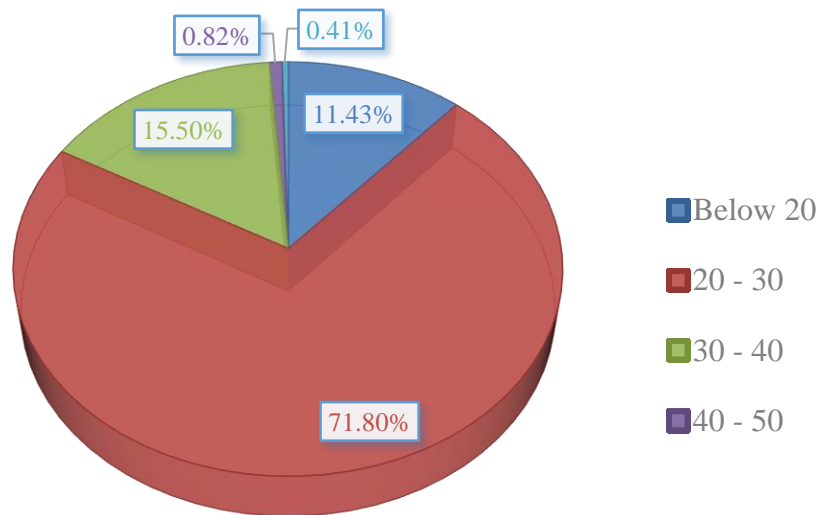
Figure 4.2: Age Distribution (Author Calculation)

4.1.3 Education Level

Regarding to the data collected, it is founded out that students' respondents with bachelor's degree were 40% and PhD student were 15.9% who made the minor of percentage. The following pie chart illustrates the distribution of Academic degree.
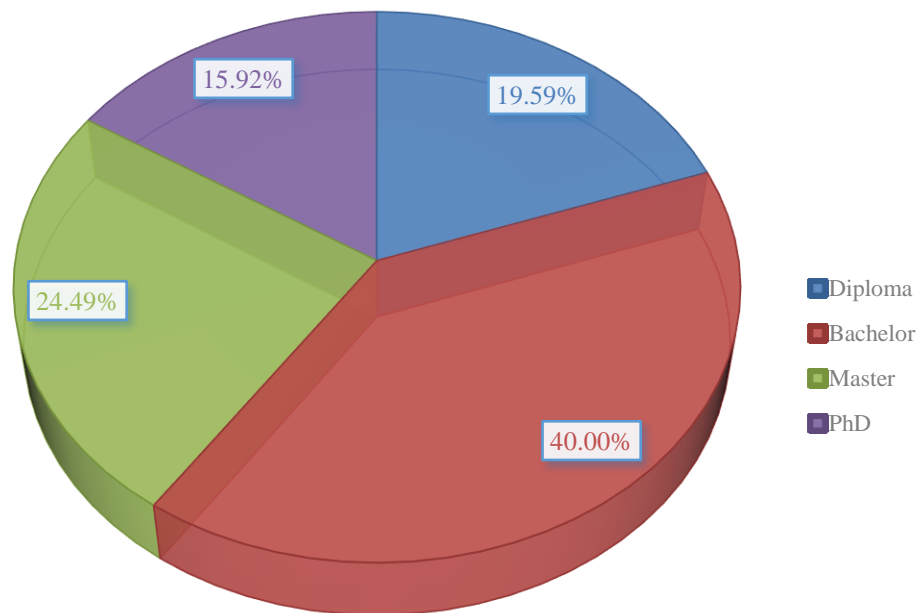
Figure 4.3: Education Level Distribution (Author Calculation)

4.1.4 Nationality

According to the data collected, it is founded out that major students' respondents were Iranian with 24.1% and Turkish with 15.5%. In addition, Congo and Congolese made 0.8%. The following pie chart illustrates the distribution of nationality.

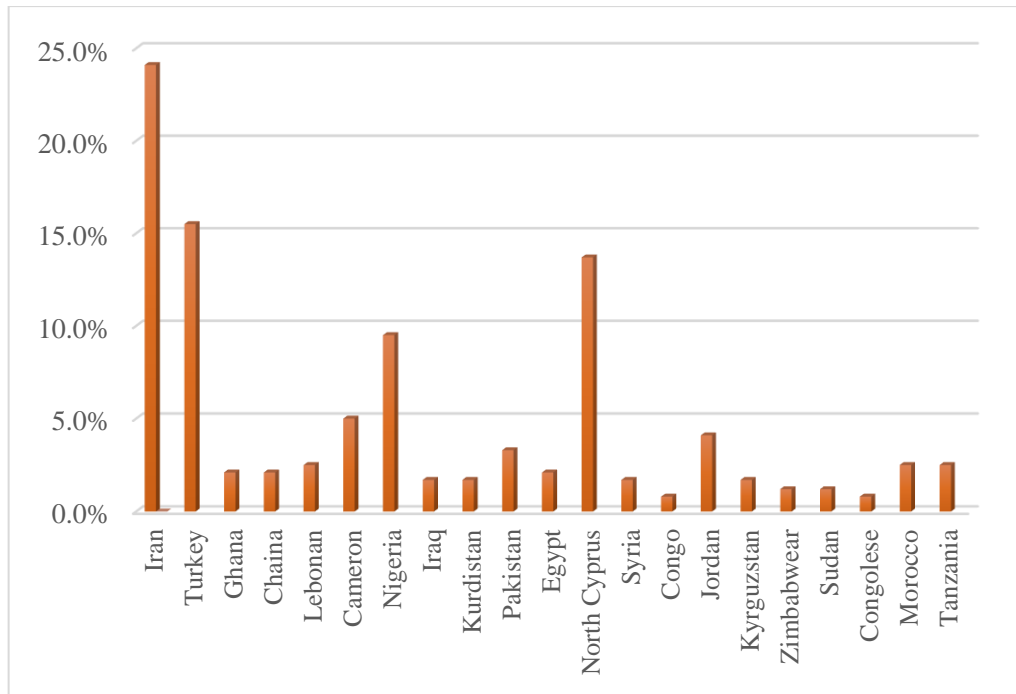Figure 4.4: Nationality Distribution (Author Calculation)

4.1.5 Income

According to the data collected, it is showed that major of students' respondents earned 200-400$ with 40.8% each month while 6.9% of respondents earned 1000 and above. The following pie chart illustrates the distribution of income.
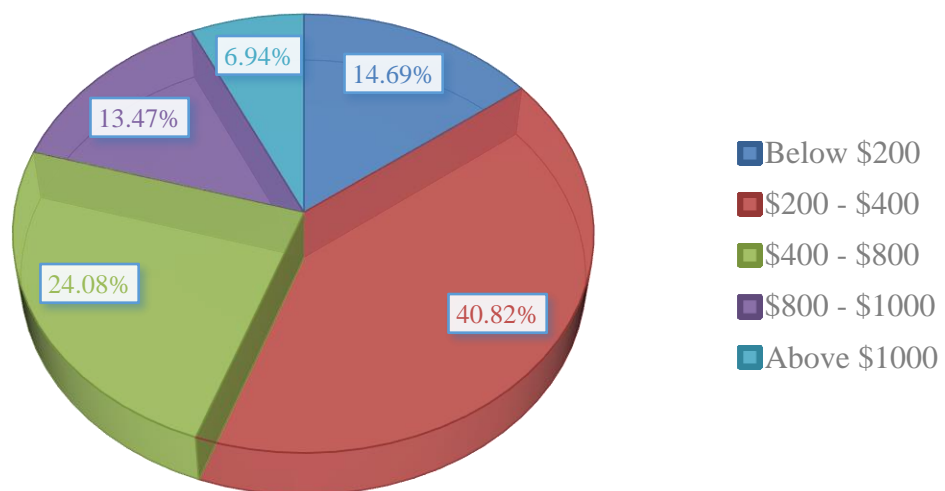

Figure 4.5: Income Level (Author Calculation)

4.2 Measurement Results

Before testing the hypothesis, the correlations, reliability, and collinearity statistics are reported. As showed in table 4.1 below, ENA (r = .640, p < .01), EFC (r = .697, p < .01), and NBN (r = .768, p < .01) have positive and significant relation with JDSI. The results in table 4.1 also repsresents JDSI has a significant positive relationshio with PPR (r = .655, p < .01).

We conducted a reliability analysis for checking the internal consistency of measurement items in different settings and conditions. Results of reliability shows Cronbach's alpha coefficients properly valuing higher than the 0.70 thresholds (Vitolins et al., 2000).

In addition, there is no multicollinearity problem, when the variance inflation factor (VIF) is below than five (Arasli, Teimouri, Kiliç, & Aghaei, 2017). On the other hand, the findings in Table (1) reveal that there are no high correlation coefficients more than 0.8 among all the variables in this study.

Table 4.1: Correlations, Reliability, Collinearity Statistics.

	JDSI	NBN	EFC	ENA	PPR	Reliability	Collinearity Statistics (VIF)
JDSI	1					.859	3.071
NBN	.768**	1				.807	2.802
EFC	.697**	.629**	1			.903	2.159
ENA	.640**	.660**	.608**	1		.850	2.040
PPR	.655**	.640**	.733**	.718**	1	.765	

** significant at the 0.01 level.

4.3 Hypotheses Testing

SPSS 23.0 was used for testing the hypotheses and estimate the regression coefficients. As estimated, based on the final results shown in table 4.2, H1 indicated that enablers (ENA) would have a positive effect on jewelry design service innovation (JDSI). The results were significant ($B = 0.630, p < 0.001$), and thus H1 is supported.

Table 4.2: Linear Regression Results for H1

	DV = JDSI
Independent variable	
ENA	.630***
	(11.526)
R-square	.516
Adj. R-square	.514

*** at the 0.001 level, **at the 0.01 level.
The numbers in parentheses indicate t-values.

Likewise, based on the outcomes in table 4.3 , jewelry design service innovation (JDSI) positively influences product performance (PPR) ($B = 0.470, p < 0.001$). Thus, Hypothesis 2 is supported.

Table 4.3: Linear Regression Results for H2

	DV = PPR
Independent variable	
JDSI	.470***
	(10.977)
R-square	.429
Adj. R-square	.427

*** at the 0.001 level, **at the 0.01 level.
The numbers in parentheses indicate t-values.

To test hypothesis 3, according to the research model, in step 1, we regressed the relationship between the explanatory variable, enablers (ENA), and jewelry design

service innovation (JDSI). According to the results in table 4.3, there is a positive and significant relationship between the independent variable (ENA) and dependent variable (JDSI) ($B = 0.630, p < 0.01$).

In the second step of table 4.4, in order to test the moderation effect of economic factor (EFC) on the relationship between enablers (ENA) and jewelry design service innovation (JDSI), first the moderator should have a significant relationship with the dependent variable. As the results show in table 4.3, this effect is positive and noticeably significant ($B = 0.529, p < 0.01$). So, we can check the interaction effect of ENA and EFC on the main relationship between ENA and JDSI. According to the analysis outcomes in table 4.4, a small positive and fairly significant effect is revealed ($B = 0.087, p < 0.01$).

Table 4.4: Moderated Regression Results for H3

	DV = JDSI	
	Step 1	Step 2
Independent variable		
ENA	.630***	.693***
	(11.526)	(13.437)
Moderating variable		
EFC		.529***
		(8.046)
Interaction term		
ENA*EFC		.087**
		(2.867)
R-square	.516	.635
Adj. R-square	.514	.632

*** at the 0.001 level, **at the 0.01 level.
The numbers in parentheses indicate t-values.
The interaction between the variables is graphed below for better interpreation. Figure 4.6 shows that the relationship between enablers (ENA) and jewelry design service innovation (JDSI) is positively strengthened by economic factor (EFC).
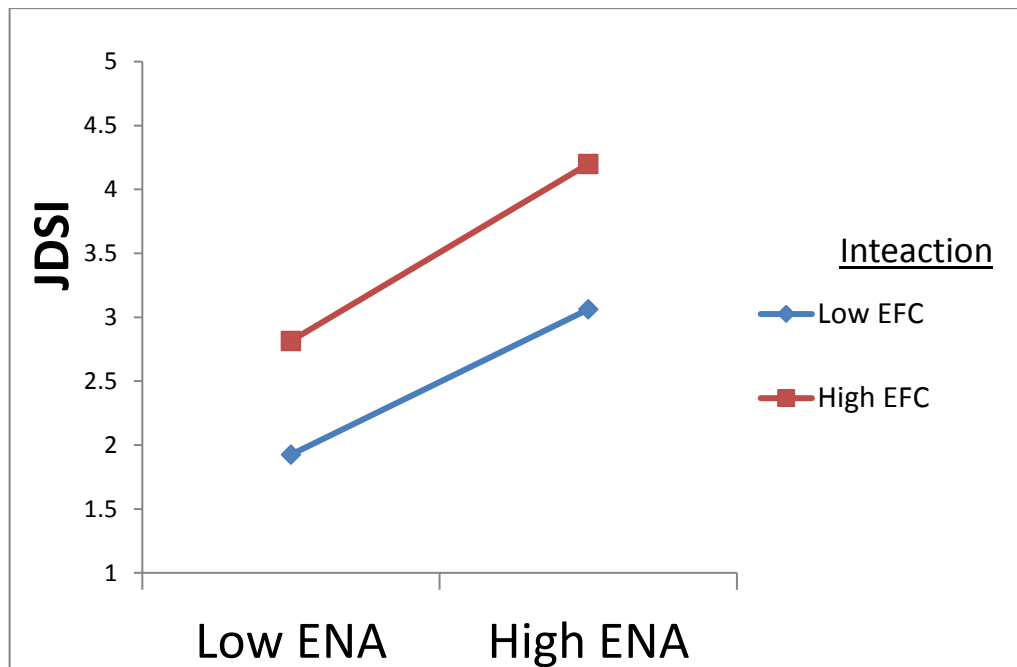
29

Figure 4.6: Interaction between ENA and EFC on JDSI

To test hypothesis 4, according to the research model, in step 1, we regressed the relationship between the explanatory variable enablers (ENA) and jewelry design service innovation (JDSI). According to the results in table 4.5, there is a positive and significant relationship between the independent variable (ENA) and dependent variable (JDSI) ($B = 0.630, p < 0.001$).

In the second step of table 4.5, in order to test the moderation effect of knowledge-based network (NBN) on the relationship between enablers (ENA) and jewelry design service innovation (JDSI), first the moderator should have a significant relationship with the dependent variable. As the results show in Table (5), this effect is positive, and noticeably significant ($B = 0.507, p < 0.001$). Consequently, we can check the interaction effect of ENA and NBN on the relationship between ENA and JDSI. Based on the analysis results in table 4.5, a weak positive and significant effect is shown ($B = 0.062, p < 0.001$).

Table 4.5: Moderated Regression Results for H4

	DV = JDSI	
	Step 1	Step 2
Independent variable		
ENA	.630***	.657***
	(11.526)	(12.816)
Moderating variable		
NBN		.507***
		(9.719)
Interaction term		
ENA*NBN		.062***
		(2.742)
R-square	.516	.635
Adj. R-square	.514	.632

*** at the 0.001 level, **at the 0.01 level.
The numbers in parentheses indicate t-values.

The interaction between the variables is graphed below for better interpretation. Figure 4.7 shows that the relationship between enablers (ENA) and jewelry design service innovation (JDSI) is positively strengthened by knowledge-based network (NBN).
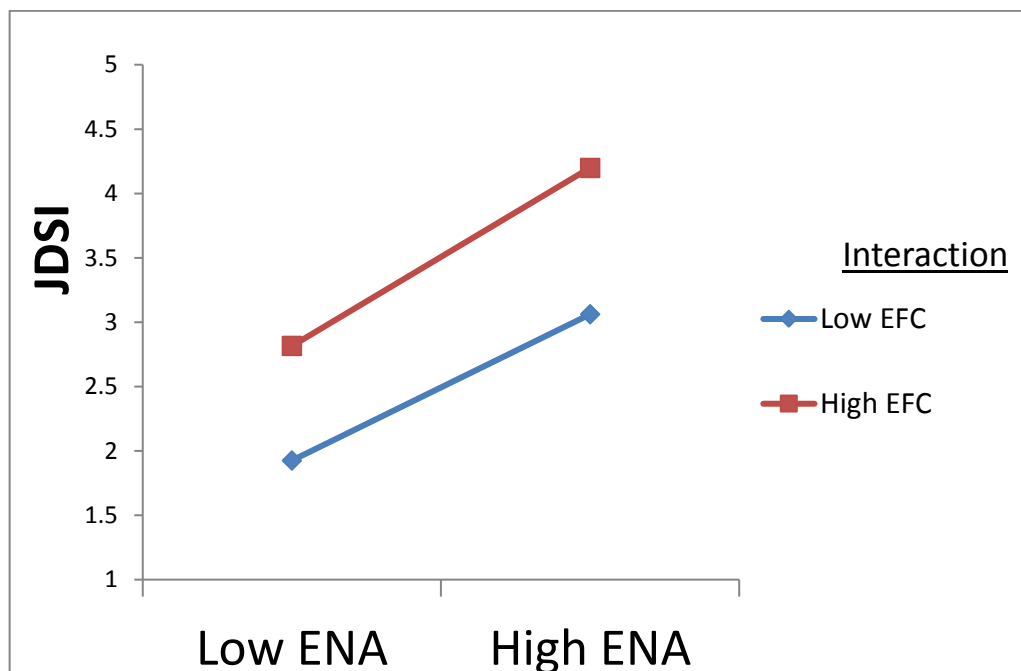
Figure 4.7: Interaction between ENA and NBN on JDSI.

The results showed that enablers (ENA) would have a positive effect on jewelry design service innovation (JDSI), jewelry design service innovation (JDSI) positively influences product performance (PPR), and there is a positive and significant relationship between the independent variable (ENA) and dependent variable (JDSI). Furthermore, the results revealed that the relationship between enablers (ENA) and jewelry design service innovation (JDSI) is positively strengthened by economic factor (EFC), and the relationship between enablers (ENA) and jewelry design service innovation (JDSI) is positively strengthened by knowledge-based network (NBN).

Chapter 5

CONCLUSION AND IMPLICATIONS

5.1 Conclusion

The nature and type of customer demand and competition as well as purchase intentions used by individuals purchasing jewelry products is recently under focus as a subject for research. It is argued that consumers make their purchase decision on the basis of their demand, competition, evaluation of, and knowledge about, the product attributes. As a result of this trend, customers with higher income are expected to have higher requirements. For jewelry products industry, this is an opportunity as well as a challenge.

In this study, the two key research objectives were to understand: (1) the relationship of service innovation on the product performance (2) the role of customer demand and competition as perceived enablers of service innovation in jewelry industry and in jewelry market.

Based on the covered literature it is clear that the jewelry market has become sophisticated and competition is very close, and in order to boost the customer feedback from this market including jewelry, one may require to gain thourough intuitions into the customer essence, thus different kinds of brands are given the chance for sales improvement. Over the years, sales of jewelry products illustrated an insignificant yet constant growth. On the other hand sales figure for luxury goods are

subjected to a more significant growth as luxury products' innovation, creativity and development are adjusted, where majority of customers regardless of their financial power or social standing, are willing to spend a large amount of money on luxury goods and products like jewelry to enhance their status. Almost all jewelry consumers despite their financial power or social level, have eager intentions to pay a premium value on a luxury product in order to elevate their social status and class. Almost all jewelry customers to share a common values and attitudes in terms of purchasing behavior. As a result, in a progressive market, one should understand the different factors of status consumption as a noticeable factor in increasing market share.

5.2 Implications

Overall, it is important to understand how customers perceive jewelry products with regards to service innovation, quality and price, and product performance satisfaction and services innovation of the jewelry market, and more importantly the determinants influencing purchase decision. Therewith, it can function representing framework to jewelry industry to test if it could offer strategies and structures to improve and retain consumers. This will also help the producers and sellers to discover solutions to overcome low sales margins, and more impotatnly consumer behavior analysis towards the purchase intention and process of jewelry products.

In this thesis several contributions are provided. First of all, latest researches are expanded by revealing that how novel service innovation and product performance are interrelated. The findings have evidence proving moderating effects of enablers of demand and competition on new product performance. With these findings a detailed illustration of enablers, service innovation and new product performance in jewelry market could be assisted.

5.3 Limitations of the Study

There are some limitations regarding this research that need to be discussed. First limitation is the sampling technique used for this study which is a convenience, nonprobability sampling technique. So, only one city of North Cyprus was included in the research, not the whole population of North Cyprus. Second limitation is the sample size which is 260. A larger sample size might result in more accurate result. Third and last, among different enablers, only two factors are chosen for the aim of this research. A research on other enablers could yield more helpful results for the practitioners of jewelry industry.

REFERENCES

Aacker, D. A. (2010). Building strong brands 2nd ed.

Anderson, P. (2008). The $12 Million Stuffed Shark: The Curious Economics of Contemporary Art and Auction Houses [Book Review]. *Art Monthly Australia*, (214), 40.

Arasli, H., Bahman Teimouri, R., Kiliç, H., & Aghaei, I. (2017). Effects of service orientation on job embeddedness in hotel industry. *The Service Industries Journal*, *37*(9-10), 607-627.

Awais Ahmad Tipu, S. (2011). Academic publications on innovation management in banks (1998–2008): A research note. *Innovation*, *13*(2), 236-260.

Awan, A. G., & Rehman, A. U. (2014). Impact of customer satisfaction on brand loyalty: An empirical analysis of home appliances in Pakistan. *British Journal of Marketing Studies*, *2*(8), 18-32.

Barletta, M. (2003). *Marketing to women: How to understand, reach, and increase your share of the world's largest market segment*. Dearborn Trade Publishing.

Belderbos, R., Carree, M., & Lokshin, B. (2004). Cooperative R&D and firm performance. *Research policy*, *33*(10), 1477-1492.

Bian, Q., & Forsythe, S. (2012). Purchase intention for luxury brands: A cross cultural comparison. *Journal of Business Research*, *65*(10), 1443-1451.

Bilton, C. (2006). *Management and creativity: From creative industries to creative management*. Wiley-Blackwell.

Bonett, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, *36*(1), 3-15.

Chan, W. Y., To, C. K., & Chu, W. C. (2015). Materialistic consumers who seek unique products: How does their need for status and their affective response facilitate the repurchase intention of luxury goods? *Journal of Retailing and Consumer Services*, *27*, 1-10.

Chantiles, C., Keyel, A., Hall, S., & Tuckett, S. (2018). Jewelry Development Impact Index Study.

Chen, K. H., Wang, C. H., Huang, S. Z., & Shen, G. C. (2016). Service innovation and new product performance: The influence of market-linking capabilities and market turbulence. *International Journal of Production Economics*, *172*, 54-64.

Darden, W. R., & Lusch, R. F. (Eds.). (1983). *Patronage behavior and retail management*. North Holland.

De Chernatony, L. (2010). *Creating powerful brands*. Routledge.

Dowling, G. R., & Uncles, M. (1997). Do customer loyalty programs really work? *Sloan management review*, *38*, 71-82.

Dubois, B., & Duquesne, P. (1993). The market for luxury goods: Income versus culture. *European Journal of marketing*, *27*(1), 35-44.

Durst, S., Mention, A. L., & Poutanen, P. (2015). Service innovation and its impact: What do we know about? *Investigaciones europeas de dirección y economía de la empresa*, *21*(2), 65-72.

Essoo, N., & Dibb, S. (2004). Religious influences on shopping behaviour: an exploratory study. *Journal of marketing management*, *20*(7-8), 683-712.

Fagerberg, J., Mowery, D. C., & Nelson, R. R. (Eds.). (2005). *The Oxford handbook of innovation*. Oxford university press.

Fillis, I. (2006). Art for art's sake or art for business sake: an exploration of artistic product orientation. *The Marketing Review*, *6*(1), 29-40.

Fillis, I. (2011). The evolution and development of arts marketing research. *Arts Marketing: An International Journal*, *1*(1), 11-25.

Fillis, I. R., Lehman, K., & Wickham, M. (2016). Conceptualising the symbolic product: An arts and cultural marketing imperative. *Academy of Taiwan Business Management Review*, *12*(1).

Flikkema, M., Jansen, P., & Van Der Sluis, L. (2007). Identifying neo-Schumpeterian innovation in service firms: A conceptual essay with a novel classification. *Economics of Innovation and New Technology*, *16*(7), 541-558.

Florida, R. L. (2004). America's looming creativity crisis.

Fournier, S. (1998). Consumers and their brands: Developing relationship theory in consumer research. *Journal of consumer research*, *24*(4), 343-373.

Gao, L., Norton, M. J., Zhang, Z. M., & Kin-man To, C. (2009). Potential niche markets for luxury fashion goods in China. *Journal of Fashion Marketing and Management: An International Journal*, *13*(4), 514-526.

Goody, J. (2006). From misery to luxury. *Social science information*, *45*(3), 341-348.

Gronroos, C. (2007). *Service management and marketing: Customer management in service competition*. Wiley.

Hinson, R. E., & Mahmoud, M. A. (2011). Qualitative insights into market orientation in small Ghanaian businesses. *International Journal of Marketing Studies*, *3*(1), 35.

Husic, M., & Cicic, M. (2009). Luxury consumption factors. *Journal of Fashion Marketing and Management: an international journal*, *13*(2), 231-245.

Keller, K. L. (2002). Branding and brand equity. *Handbook of marketing*, *151*.

Khan, N. J., Razzaque, M. A., & Hazrul, N. M. (2017). Intention of and commitment towards purchasing luxury products: A study of Muslim consumers in Malaysia. *Journal of Islamic Marketing*, *8*(3), 476-495.

Kotler, P., & Armstrong, G. (2005). Marketing: An introduction, New Jersey: Pearson Education Incorporation.

Kubacki, K., & Croft, R. (2011). Markets, music and all that jazz. *European Journal of Marketing*, *45*(5), 805-821.

Lloyd, R. (2010). *Neo-bohemia: Art and commerce in the postindustrial city*. Routledge.

Lusch, R. F., & Nambisan, S. (2015). Service innovation: A service-dominant logic perspective. *MIS quarterly*, *39*(1).

Masterman, G. (2007). *Sponsorship: for a return on investment*. Routledge.

Melton, H. L., & Hartline, M. D. (2010). Customer and frontline employee influence on new service development performance. *Journal of Service Research*, *13*(4), 411-425.

Menor, L. J., & Roth, A. V. (2008). New service development competence and performance: an empirical investigation in retail banking. *Production and Operations Management*, *17*(3), 267-284.

Menor, L. J., Tatikonda, M. V., & Sampson, S. E. (2002). New service development: areas for exploitation and exploration. *Journal of Operations Management*, *20*(2), 135-157.

Michel, S., Brown, S. W., & Gallan, A. S. (2008). Service-logic innovations: how to innovate customers, not products. *California management review*, *50*(3), 49-65.

Möller, K., Rajala, R., & Westerlund, M. (2008). Service innovation myopia? A new recipe for client-provider value creation. *California management review*, *50*(3), 31-48.

Molnár, V. (2017). Street art and the changing urban public sphere. *Public Culture*, *29*(2 (82)), 385-414.

Moore, A. E. (2007). *Unmarketable: Brandalism, copyfighting, mocketing, and the erosion of integrity*. New Press.

Najafi-Tavani, S., Najafi-Tavani, Z., Naudé, P., Oghazi, P., & Zeynaloo, E. (2018). How collaborative innovation networks affect new product performance: Product innovation capability, process innovation capability, and absorptive capacity. *Industrial marketing management*, *73*, 193-205.

Oberlin, K. C., & Gieryn, T. F. (2015). Place and culture-making: Geographic clumping in the emergence of artistic schools. *Poetics*, *50*, 20-43.

Ostrom, A. L., Bitner, M. J., Brown, S. W., Burkhard, K. A., Goul, M., Smith-Daniels, V., ... & Rabinovich, E. (2010). Moving forward and making a difference: research priorities for the science of service. *Journal of service research*, *13*(1), 4-36.

Papazoglou, M. P., Elgammal, A., & Krämer, B. J. (2018). Collaborative on-demand Product-Service Systems customization lifecycle. *CIRP Journal of Manufacturing Science and Technology*.

Park, H. J., Rabolt, N. J., & Sook Jeon, K. (2008). Purchasing global luxury brands among young Korean consumers. *Journal of Fashion Marketing and Management: An International Journal*, *12*(2), 244-259.

Paton, R. A., & McLaughlin, S. (2008). Services innovation:: Knowledge transfer and the supply chain. *European Management Journal*, *26*(2), 77-83.

Phau, I., & Prendergast, G. (2000). Consuming luxury brands: the relevance of the 'rarity principle'. *Journal of Brand Management*, *8*(2), 122-138.

Reinecke, J. (2014). *Street-Art: Eine Subkultur zwischen Kunst und Kommerz*. transcript Verlag.

Robertson, I. (2015). *Understanding art markets: Inside the world of art and business*. Routledge.

Schumpeter, J. A., & Opie, R. (1961). *The theory of economic development: an inquiry into profits, capital, credit, interest, and the business cycle*. Cambridge, MA: Harvard University Press.

Scott, A. J. (2001). Capitalism, cities, and the production of symbolic forms. *Transactions of the institute of British geographers*, *26*(1), 11-23.

Shavitt, S. (1989). Products, personalities and situations in attitude functions: implications for consumer behavior. *ACR North American Advances*.

Sheth, J. N., Mittal, B., Newman, B. I., & Sheth, J. N. (2004). Customer behavior: A managerial perspective.

Skålén, P., Gummerus, J., Von Koskull, C., & Magnusson, P. R. (2015). Exploring value propositions and service innovation: a service-dominant logic study. *Journal of the Academy of Marketing Science*, *43*(2), 137-158.

Solomon, M. R. (2009). *Marketing: Real people, real decisions*. Pearson Education.

Solomon, M., Bamossy, G., Askegaard, S., & Hogg, M. K. (2002). Consumer Behaviour, A European Perspective. England.

Spohrer, J., & Maglio, P. P. (2008). The emergence of service science: Toward systematic service innovations to accelerate co- creation of value. *Production and operations management*, *17*(3), 238-246.

Tavani, S. N., Sharifi, H., & Ismail, H. S. (2014). A study of contingency relationships between supplier involvement, absorptive capacity and agile product innovation. *International Journal of Operations & Production Management*.

Thompson, D. (2014). *The supermodel and the Brillo box: Back stories and peculiar economics from the world of contemporary art*. St. Martin's Press.

Toivonen, M., & Tuominen, T. (2009). Emergence of innovations in services. *The Service Industries Journal*, *29*(7), 887-902.

Van Looy, B., Gemmel, P., & Dierdonck, R. (Eds.). (2003). *Services management: An integrated approach*. Pearson Education.

Vargo, S. L., & Lusch, R. F. (2014). Evolving to a new dominant logic for marketing. In *The Service-Dominant Logic of Marketing* (pp. 21-46). Routledge.

Vitolins, M. Z., Rand, C. S., Rapp, S. R., Ribisl, P. M., & Sevick, M. A. (2000). Measuring adherence to behavioral and medical interventions. *Controlled clinical trials*, *21*(5), S188-S194.

Von Hippel, E. (2005). Democratizing innovation: The evolving phenomenon of user innovation. *Journal für Betriebswirtschaft*, *55*(1), 63-78.

Wang, Q., Zhao, X., & Voss, C. (2016). Customer orientation and innovation: A comparative study of manufacturing and service firms. *International Journal of Production Economics*, *171*, 221-230.

Witell, L., Snyder, H., Gustafsson, A., Fombelle, P., & Kristensson, P. (2016). Defining service innovation: A review and synthesis. *Journal of Business Research*, *69*(8), 2863-2872.

Wuestefeld, T., Hennigs, N., Schmidt, S., & Wiedmann, K. P. (2012). The impact of brand heritage on customer perceived value. *Der markt*, *51*(2-3), 51-61.

Yeh, Y. J., Lai, S. Q., & Ho, C. T. (2006). Knowledge management enablers: a case study. *Industrial Management & Data Systems*, *106*(6), 793-810.

Zhang, B., & Kim, J. H. (2013). Luxury fashion consumption in China: Factors affecting attitude and purchase intent. *Journal of Retailing and Consumer Services*, *20*(1), 68-79.

Zhang, M., Zhao, X., Voss, C., & Zhu, G. (2016). Innovating through services, co-creation and supplier integration: cases from China. *International Journal of Production Economics*, *171*, 289-300.

APPENDIX

Appendix A: Questionnaire

Dear respondent,

This survey is being carried out to understand: (1) the relationship of service innovation on the product performance (2) the role of customer demand and competition as perceived enablers of service innovation in jewelry industry and in jewelry market in Asian and African middle income countries (Algeria, Azerbaijan, China, India, Iran, Iraq, Jordan, Kazakhstan, Libya, Lebanon, Pakistan, Russia, Turkey, Ukraine, Syria, Morocco, Cameron, Nigeria, Tunisia, Ghana…).

This survey is being carried out with full permission from the faculty administration and is for academic research purpose only. I fully assure you that all of the answers you provide in this survey will be kept confidential. the survey data will be reported in a summary fashion only and will not identify any individual person.

Participating in this survey is entirely voluntary, you are free to choose whether or not you wish to participate. You are also free to stop participating at any point in the course of filling out the survey.

Ghazaleh Foroughi

QUESTIONNAIRE

The aim of this research is measuring the relationship between innovative jewelry design service and new product performance.

PART A

Please tick (√) in the appropriate answer in the blank space

Degree of Frequency: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree						
Service innovation		☹		😐		😊
1	Innovative jewelry design service that allowed the company to enter new market.	1	2	3	4	5
2	Innovative jewelry design service can promote existing product line for the company.	1	2	3	4	5
3	Innovative jewelry design service requires change in the customer's buying behavior.	1	2	3	4	5
4	Innovative jewelry design service that offered new features vs. competitive products.	1	2	3	4	5
Knowledge-based network		☹		😐		😊
5	Knowledge-based network causes acquisition of jewelry design knowledge through collaboration.	1	2	3	4	5
6	Knowledge-based network members' abilities use in creating, acquiring and managing jewelry design knowledge.	1	2	3	4	5
7	Knowledge-based network causes stimulating information exchange between designers.	1	2	3	4	5
Economic factors		☹		😐		😊
8	Innovative jewelry design service costs too high.	1	2	3	4	5
9	Pay-back period of innovative jewelry design service too long.	1	2	3	4	5
10	Lack of management training in innovative jewelry design management.	1	2	3	4	5
11	Regulatory constraints by local and foreign government is a barrier for innovative jewelry design service.	1	2	3	4	5
Product Performance						
• **Non-financial outcome (NFO)**		☹		😐		😊
12	The new innovative design product improved the loyalty of company's existing customers.	1	2	3	4	5
13	The new innovative design product had a positive impact on the company's perceived image.	1	2	3	4	5
14	The new innovative design product enhanced the profitability of other products	1	2	3	4	5
15	The new innovative design product attracted significant number of new customers to the company..	1	2	3	4	5

	• Financial outcome (FO)	☹		😐		😊
16	The new innovative design product exceeded its market share objectives.	1	2	3	4	5
17	The new innovative design product exceeded its sales objectives.	1	2	3	4	5
18	The profitability of new innovative design product exceeded its objectives.	1	2	3	4	5
19	New innovative design product will not increase the sales volume of new product.	1	2	3	4	5

Degree of Frequency:
1 = Strongly unimportant   2 = Unimportant   3 = Neutral   4 = Important   5 = Strongly important

Enablers (Customer demand & competition)	☹		😐		😊
20	Customer demand for creating innovative design product.	1	2	3	4	5
21	Customer demand for quality of innovative design product.	1	2	3	4	5
22	Globalization of the market for creating innovative design product.	1	2	3	4	5
23	Intensified competition for creating innovative design product.	1	2	3	4	5
24	Strict barriers of trade for creating innovative design product.	1	2	3	4	5

PART B

This section is about an individual, please tick (√) in the appropriate answer or fill in the blank space.

Question 1: Your gender: Male ( )   Female ( )

Question 2: How old are you?

Below 20 ( )   20-30 ( )   30-40 ( )   40-50 ( )   above 50( )

Question 3: What is your academic degree?

a) Diploma ( )   b) B.A ( )   c) M.A ( )   d) P.H.D ( )

Question 4: Your Nationality ....

Question 5: Monthly Income Range(USD)
Below 200 ( )
200-400 ( )
400-800 ( )
800-1000 ( )
1000 and above ( )

Thank you for participating in this questionnaire.