

T.R.
GEBZE TECHNICAL UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES

**THE CUSTOMER RELATIONSHIP MANAGEMENT
PROCESS: ITS MEASUREMENT AND
IMPACT ON PERFORMANCE**

MOHAMED HASSIROU FOUCENI
A THESIS SUBMITTED FOR THE DEGREE OF
MASTER OF SCIENCE
DEPARTMENT OF BUSINESS ADMINISTRATION

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2019

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SUMMARY

Given the rapid growth of mobile technology services in some countries and the relatively slow growth in others, it is important to understand the customer values created through CRM. This study develops a model indicating the behavioral intentions of consumers to use mobile services and their intention to buy on the internet. It has two objectives. First, a theoretical model is developed to explain intentions to purchase from the internet and the intention to use a mobile commerce application, based on Technology Acceptance Model (Davis, 1989). Secondly, this model is tested by an online survey conducted in Turkey.

The study found that the main explanatory factors of consumers' online purchase intention, intention to use mobile commerce application are satisfaction and perceived usefulness. In addition, this study shows that perceived value is not positively associated with satisfaction. Moreover, it has been proven that the context is not positively associated with the intention to use the mobile commerce application. Similarly, perceived ease of use, perceived value, perceived risk, and context are not positively associated with the online purchase intention. In conclusion, the study proposes to provide marketing managers with decision - making elements to identify the most appropriate marketing strategies to meet the specific needs of customers.

Key Words: Customer Relationship Management, Customer Value, Satisfaction, Behavioral Intention, Technology Acceptance Model.

ÖZET

Bazı ülkelerde mobil teknoloji hizmetlerinin hızlı büyümesi ve diğerlerinde nispeten yavaş büyüme göz önüne alındığında, CRM aracılığıyla yaratılan müşteri değerlerini anlamak önemlidir. Bu çalışma, tüketicilerin mobil hizmetleri kullanmadaki davranışsal niyetlerini ve internette satın alma niyetlerini belirten bir model geliştirmektedir. Bu çalışma, tüketicilerin çevrimiçi satın alma niyetinin, mobil ticaret uygulamasını kullanma niyetinin temel açıklayıcı faktörlerinin memnuniyet ve algılanan faydalılık olduğunu ortaya koymuştur. Ayrıca, bu çalışma algılanan değer memnuniyetle pozitif yönde ilişkili olmadığını göstermektedir. Ayrıca, içeriğin mobil ticaret uygulamasını kullanma niyeti ile pozitif bir şekilde ilişkili olmadığı kanıtlanmıştır. Benzer şekilde, algılanan kullanım kolaylığı, algılanan değer, algılanan risk ve bağlam çevrimiçi satın alma niyetiyle pozitif ilişkili değildir. Sonuç olarak, çalışma, pazarlama yöneticilerine, müşterilerin özel ihtiyaçlarını karşılamak için en uygun pazarlama stratejilerini tanımlamak için karar verme unsurları sağlamayı teklif ediyor.

Anahtar Kelimeler: Müşteri İlişkileri Yönetimi, Müşteri Değeri, Memnuniyet, Davranışsal Niyet, Teknoloji Kabul Modeli

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ABBREVIATIONS

<u>Abbreviation</u>	<u>Explanation</u>
B2B	Business to Business
B2C	Business to Consumer
CRM	Customer Relationship Management
CSS	Customer Self-Service
Df	Degree of Freedom
e-CRM	Electronic Customer Relationship Management
IT	Information Technology
KMO	Kaiser-Meyer Olkin
PCA	Principal Component Analysis
R&D	Research and Development
SFA	Sales Forces Automation
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model
TIB	Theory of Interpersonal Behavior
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action

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1. INTRODUCTION

Customer Relationship Management (CRM) has attracted the attention of many specialties and industries. CRM is the instrument for establishing and maintaining the customer relationship. It also allows companies to constantly communicate with their customers on an individual basis and to differentiate the value of the relationship. With the development of new information and communication technologies, there has been a migration from traditional CRM to e-CRM. Thus, according to the Organization for Economic Cooperation and Development (2004), the advent of e-commerce promotes access to the global market at a cost that has never been so low and competitive. Except that the challenge becomes enormous for companies that operate in culturally heterogeneous markets, because they are faced with an urgent need to understand the consumption behavior of the different subcultures that live there, in order to adapt accordingly their commercial actions.

In contemporary societies, like Turkey, with a large population estimated at about eighty-two million people, this promotes the creation of a large, well-structured consumer market. Such a population is an asset for commercial enterprises that want to maintain lasting relationships with their customers by creating mobile services for them. This will encourage their intention to purchase, and the intention to use these services. But it must be remembered that a population of this kind has consumers who have their own needs, their own economic specificities, and their own consumer behavior. This puts the marketing manager before a major challenge, that of differentiating consumers according to their expectations in order to make the right decisions in marketing.

Based on the Technology Acceptance Model of Davis (1989), we will attempt to identify the main factors that influence consumers' intentions to purchase online and use the mobile application of commerce. Moreover, given the importance of psychological factors in explaining differences in behavior between consumers for the same type of product or service, it is necessary to introduce this notion into the study. Thus, the various antecedents of a pre-adoption phase of online commerce existing in the literature, the behavioral intentions of consumers that we propose to measure through a new construct of six elements adapted to the Acceptance Model of technology. Constructs derived from customer value such as perceived usefulness, perceived ease-of-use, perceived value, perceived need, perceived risk, perceived trust

and context were retained. With regard to the last construct, satisfaction was chosen as a moderating variable to better appreciate the purpose of the research. This approach will allow us to conceptualize the links that explain the adoption of e-commerce through the behavioral dimension of the consumer.

In order to treat the subject and answer the questions raised, a research plan has been drawn up. A survey posted online and after empirical research has been supplemented by numerous readings on the subject. The data processing and results analysis phase was performed using the IBM SPSS Statistics 21 program.

The objective of this study is to propose a conceptualization of the concept of CRM for better understanding and to measure the impact of customer value through Customer Relationship Management on behavioral intentions such as online purchase intention and intention to use a mobile commerce application. We will be able to show at the theoretical and conceptual level the interest of linking these elements of the value of the customer to the adoption of information technologies, and more specifically a mobile commerce application. In practical terms, the study aims to provide marketers with decision-making elements that identify the marketing strategies best suited to the context of the rising e-commerce market.

In this perspective, we present in a first section, a review of literature that allows to better understand the problem, to define the theoretical foundations of the Customer Relationship Management, its explanatory factors and to determine the elements necessary for the development of an appropriate conceptual framework. We also borrow from the psychology of theories to explain the complex behavioral intentions of the consumer and his intention to adopt the use of new technologies and in particular what affects the mobile supports. Regarding the second section, we will explain the variables retained in our conceptual framework, including the main determinants of intention to use and intention to buy online. The third section will be devoted to the methodology adopted for the realization of this study. The fourth section will be devoted to analyzing the data and interpreting the results of the empirical study. In the last section, we will present the limitations inherent to our study as well as the main conclusions to be retained. Finally, we will discuss the main theoretical and managerial implications as well as future research directions. The fourth section will be devoted to analyzing the data and interpreting the results of the study. In the last section, we will present the limitations inherent to our study as well as the main

conclusions to be retained. Finally, we will discuss the main theoretical and managerial implications as well as future research tracks.



2. LITERATURE REVIEW

In this part of our work, we will review the different concepts that we wish to study as part of this research. First, we start with the generalities of customer marketing, then CRM and electronic CRM, and finally we approach the concept of the Acceptance Model of Technology.

2.1. Customer Marketing

Customer marketing appears as a marketing of the new generation. The companies aim to get closer to their customers. Previously, the manufacturers put their products on the market and the choice is left to the customers either to adopt the product and buy it or not to buy them which prolonged the stay of the products in the shelves (Houston, 1986). Today the market is becoming more and more competitive and it is imperative to produce what consumers want (Houston, 1986). The stakes were high, so businesses had to focus their concerns around their preferred partner, the client. Thus, production is much more customer-oriented than product-oriented. Successively we have the following transformations (Tamosiuniene and Jasilioniene, 2007):

1950-1960: Companies produced mass. As for companies, they simply have a product orientation, meeting the expectations of customers.

1970s: Market segmentation becomes a reality in companies. The policy remains product-oriented.

1980s: The requirement of customers leads companies to think of the improvement of the production process and the quality of their products.

1990s: The market has metamorphosed with the reversal of the marketing paradigm that results in the shift from product orientation to customer orientation. This year and the years after, put the customer at the center of the activities.

2000s: Personalized marketing or one-to-one marketing becomes topical and very practical thanks to the internet (Vandermerwe, 2000). This translates into a personalized approach to the customer relationship.

Customer marketing is increasingly seen as a real answer to the new challenges of marketing and especially the expectations and demands of consumers. It finds all its meaning with the technology that has revolutionized it considerably. But how to precisely define customer marketing? But before it will be wise to give a brief

definition on the concept of Marketing. Marketing is the set of techniques that consist in first identifying the human needs and in a second time satisfying them (Kotler, 2012). Thus, customer marketing is the marketing that puts the customer at the center of his approach by seeking to know him individually and to recreate an interactive relationship with him over time, or even throughout his life as a client (Berry, 1983).

2.1.1. Transformation of Customer Marketing

Customer marketing has been changing over time with the development of the marketing as a special science. It has transformed from transactional marketing to relationship marketing. The transaction is the essential element of transactional marketing. It is particularly based on the act of purchase with the sole purpose of closing the sale (Baker et al., 1998). Its effect is short-lived so after the sale, buyers and sellers should maintain their relationship (Levitt, 1983). By opposed to a relational marketing which aims on the one hand the long term and recognizes the importance of the management of the relations between sellers and buyers (Webster, 1992). For a long time the marketing of the transaction was highlighted by the sellers under the pretext that relationship marketing was expensive from the point of view of its implementation. Yet marketing provides benefits to the business for example the reduction of the cost of marketing (Berry, 1983), applicable to any type of business not just service and sales companies (Day and Montgomery, 1999). In conclusion, the point is not to infer automatically that relationship marketing is better than transactional marketing, but to recall that both concepts have advantages and disadvantages (Ganesan, 1994).

What is about a good perception of the image of the products in the mind of the consumer favors the development of the brand (Keller, 1993). In the following table, a brief comparative study is made between transaction marketing and relationship marketing.

Table 2.1: Transactional marketing vs relationship marketing (Baker et al.,1998)

Transaction Marketing	Relationship Marketing
Focus on the deal at the hand	Focus on the future deal along the deal at hand
Push price	Promote value
Short-term thinking and acting	Long-term thinking and acting
Build the business on deals	Build the business on relationship
Acquire profitable customers	Retain existing profitable customers

Short-term empathy	Long-term empathy and rapport
Incentive provide for doing the deal	Incentive provide for developing long-term relationship
Product and selling focused	Expectations, perception, and trust and focused
Race for a sale result	Swift, strong, safe, and enduring results through relationship building
Less focus on after-sales support and service	Strong after-sales support and services
After-sales support and service seen as a cost	After-sales support and services seen as investment in the relationship
Transaction is the end	Transaction is just the beginning

2.1.2. The Client Capital

Overall it represents the value of the customer relationship. This expresses the total financial contribution that a client can make during his existence to the company (Nikkhahan et al., 2011). The customer capital comprises three essential components (Dwivedi et al., 2012), the value perceived by the customer, the brand capital based on the customer and finally the loyalty and quality of the relationship. The customer capital is an indicator that predicts the value of the customer relationship and its contribution (Persson and Ryals, 2010). To measure it studies have shown that many methods are possible but that the best way used is the lifetime value of the client (Qi et al., 2012).

Customer capital is the perception that customers have of the value of the brand (Keller and Lehmann, 2006). The work on customer capital is embodied in actions aimed at a twofold objective: improving the efficiency of the customer contact system, or loyalty tools and developing the profits generated by customers (Bush et al., 2007). The loyalty process begins with a rapprochement between the company and its customers. To achieve this, the company explains the merits of taking into account the needs and expectations of the customer. The decision to opt for this process is the result of consultations between managers of different departments of the company.

2.1.3. Relationship marketing

It's easier to get something from someone when you have good relationships with them. Conversely, trying to get an action from a prospect without prior introduction is often not very effective. Instead of focusing solely on the sale of its products, it is rather desirable that the sales force of the company presents itself, makes itself known and responds to the concerns of customers. Relationship marketing is the

art of creating a relationship with potential customers before asking them something (Sheth et al., 2015).

Relationship marketing is the set of marketing actions that aim to establish a continuous, strengthened and enriched relationship with the consumer in order to build loyalty and eventually increase equipment or consumption (EGAN, 2005). Theoretically, relational marketing aims to develop the relationship outside even moments of consumption or purchase and thus opposes transactional marketing (21). This relationship is built through the establishment of a dialogue between the brand and the consumer that takes place on different channels and supports (website, social networks, e-mailing, mobile application, etc.) and " possibly by a rewarding the consumer (Leenheer et al., 2007).

2.1.3.1. The Relational Marketing Missions

Overall, there are four main missions of relationship marketing: proactive relational marketing, adaptive relational marketing, relational relationship marketing and relationship marketing (Julien and Micheaux, 2004).

The relational marketing missions developed by the author is shown down in figure 2.1.

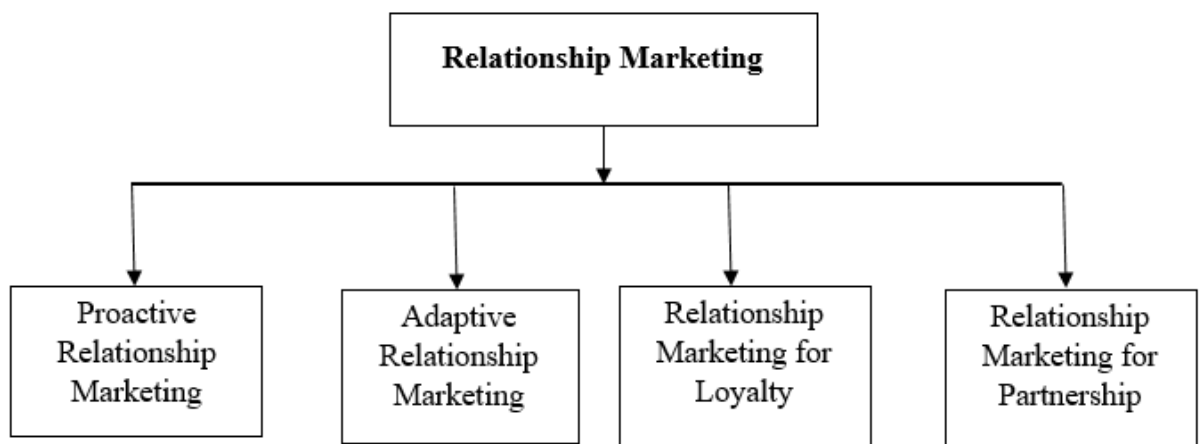


Figure 2.1: The Relational Marketing Missions (Julien and Micheaux, 2004).

- In its proactive dimension, the company's contact with the target is intended to suggest improvements in the product used and to collect ideas for new products. The company must help the client to identify, structure or recognize their needs.
- As part of an adaptive relationship marketing, the company takes the initiative to go or call to make sure the product perfectly meets the customer's

expectations. She inquires about the suggestion of improvement and any specific disappointments. The company must focus on building and maintaining dialogue.

- In relationship loyalty marketing, the reactive dimension is very important. The company needs to demonstrate that it can do better, offer tailored improvements to problems, and continuously create value for its customers. For this the company must encourage customers to react clearly and firmly if it has questions, comments or claims about the product because there is no more disloyal than a customer who is not satisfied and who never claim.
- In relationship marketing partner, the customer is an accomplice of the company. He works in partnership with the company to meet the expectations of the company's customers, find ideas for new products and create value.

2.2. Customer Relationship Management (CRM)

To face its competition and obtain the best market share, companies opt for the implementation of the latest generation of data collection and processing systems. The mutations observed in marketing with the advent of personalized marketing at the expense of mass marketing. The CRM aims to identify, attract and maintain the best customers in the company's customer portfolio a better profitability.

In this part, we will learn a little more about this acronym.

CRM is the acronym for "Customer Relationship Management". CRM includes all the marketing or support measures or operations aimed at optimizing the quality of customer relations, maintaining loyalty and maximizing sales or customer profit margins (Scott, 2001). According to (Injazz and Karen, 2004), in a more restrictive sense, the CRM may designate the entire IT device dedicated to the management of the customer relationship. CRM is then the IT solution to manage all the information related to customers and prospects and all interactions with these individuals (incoming and outgoing contacts).

2.2.1. Types of CRM

The different types of CRM finds meaning through the levels that will be impacted within the organization .There are three levels: strategic, operational and analytical (Iriana and Buttle, 2007).

1. Strategic CRM

It is the building block on which the organization relies to distribute customer information to the sales team departments, the technical team, the marketing team, and finally the support team. It has a unique goal that boils down to improving the quality of service provided to customers, building customer loyalty and eventually acquiring new customers to improve sales volume.

2. The operational CRM

Operational CRM successively influences three kinds of operations. Sales automation; marketing automation; service automation and the business process. This type of CRM aims through its activities the conversion of prospects into potential customers and their monitoring throughout their stay in the customer portfolio of the organization. Under the operational CRM there are three main sections: First, *Automation of sales*: As the name implies, sales automation allows the organization to automate the sales process. Through its activities it allows to obtain new customers without neglecting the existing customers. It puts the company in charge of providing information that helps customers satisfy customers and boost sales more effectively. Secondly, *Marketing automation*: the commercial campaign is essential. All actions are aimed at reaching the target ie potential customers. It facilitates the choice of effective communication channels for the company. In general, it aims at the efficient distribution of products and the contact of potential customers. Finally *Automation of services*: the automation of services acts as an intermediary between the organization and its customers. Problems from clients are taken into account by skill services. This will mean that one service will not play the role of another service and vice versa. The purpose of such an approach allows the organization to improve the services offered to customers and developing very solid relationships.

3. Analytical CRM

Through the analysis of data that emerges as its main function, analytic CRM analyzes customer information from various sources. This information is for the top of the hierarchy exploitable data to judge the appropriateness of the measures to be taken to better serve customers. There is another type of CRM, collaborative CRM. The relationships between staff and communication channels emerge. Its main objective is to provide better services to customers thanks to the information collected in the various departments of the organization (Edwards, 2009).

2.2.2. CRM components

According to Gray et al. (2001), we distinguish three CRM components which are: the client, the relation and the management. The customer: customers are privileged partners for companies. The production of the company must consider their aspirations. Several companies to face the competition incur expenses in the direction of the loyalty of the customer. As a result, competition allows organizations to be on permanent standby and adopt information technologies (IT) to better control their customers. This often-expensive technology helps to appreciate customers in terms of revenues and to bring business strategies according to their importance.

The relationship: to maintain a strong and lasting relationship, a two-way connection must exist between the two partners, that is, the company and its customer. Many companies have built a variety of relationships with customers. Sometimes the relationship is long-term or short-term, sometimes repeated, unique or unofficial. Not to mention the form that can take a relationship that is usually based on attitude or behavior. As a result, a variety of relationships emerge. This relationship can be of three types, business to consumer (B2C), business to business (B2B) and business to business to consumer (B2B2C).

Business-to-Consumer: it is all the commercial relations that exist between the company and its consumers. In this case, the company targets a category of products and services that it offers to its potential or existing private customers and comes into contact with them. A consumer-oriented marketing strategy is put in place in this case.

Business-to-Business: in contrast to B2C, B2B refers to business relationships between two or more companies. A B2B CRM relationship includes all marketing measures that have a positive effect on the relationship between two companies. The purpose of marketing activities is to establish a foundation of trust and to bond more closely with the client company. A B2B relationship is more directly customer-oriented.

Business-to-Business-to-Consumer: This relationship refers to the activity of companies that market goods and services to third-party companies, which resell them to the general public. It is difficult to accurately measure B2B2C, as it is often the case that the companies involved also offer their products to end consumers. This type of trade takes place both in the domestic market and in the international market. As an

instrument for measuring this relationship, the calculation of the value of the customer's lifetime illustrates this.

Management: for an effective CRM, the involvement of all departments of the firm will achieve the objectives. A CRM culture requires real changes within the company. These changes are essential to the overall structure of the organization and extend to employees. The success of a CRM implementation requires perfect control of its components. And it is in this sense that (Francis, 2004) affirm that people, technology and finally processes are the fundamental elements of CRM.

2.3. Creating Customer Value through CRM

The main goal of CRM is the creation and delivery of value to all targeted profitable customers. It is important to understand the concept of value and the elements that create value.

2.3.1. Comprehension of Value

The value concept globally has different meanings. Thus, from the research findings of Zeithamel (1988), it is clear that clients use the term value in four different orientations: *Firstly*, Value is “all I get for all I sacrifice”. For these customers, value results from the relationship between the many benefits they receive during the purchase, ownership, use, consumption and disposition of a product or service, and many sacrifices that they give to enjoy these benefits. *Secondly*, Value is “the low price” for customers in this category, a very low price implies great value.

Thirdly, Value is “the quality I get for the price I pay”. Customers who support this statement describe value as a fit between the price they pay for the product or service and the quality they receive back. *Fourth*, Value is “getting what I want from a product or service”. For this type of customers, the most important element in terms of value are the benefits they receive from the products or services and not the price paid for them.

These varied perspectives on value can be a unique definition of the value concept. Value is the customer's perception of the balance between the benefits received from a product or service and all the sacrifices made to enjoy those benefits (Francis, 2004).

2.3.2. Origins Of Values

In a company, the development of the value proposition comes from the expertise of marketers. However, the marketing mix is the marketing tool by which value is created. In practice, the marketing mix is recognized by the term 4P which incorporates the product, price, promotion and place (McCarthy, 1996). The marketing mix variables are used to create the following values.

Value from product: companies manufacture products that they make available to customers. In fact, by buying these products, the goal sought by customers is the solution to their problems and not the purchase of products. Customers consider this act advantageous or eventually will provide some benefits. Customers consider this act advantageous or ultimately will provide them with benefits. Significant value is created for customers through a product category that provides better solutions to problems.

Value from services: the service results in a performance or act performed in order to satisfy the customer. Many companies offer value from the service that plays an important role in such circumstances. The evidence is that the service sector is an economic lever in developed countries. The gross domestic product of these developed countries is 70% generated by the services sector. These service organizations view the service as a basic product.

Value from channel: the primary mission of the distribution function is to provide services to customers taking into account the factors time and place. By doing so, the customer has the opportunity to choose himself moment and location to provide the service. To fulfill this mission, companies in the consumer goods sector have set up distribution channels composed of intermediaries such as wholesalers and retailers.

Value from customer communication: in the recent past, it was impossible for companies to create value for their customers. Nowadays, this is possible thanks to communication strategies. To reach a broad target, companies ask themselves questions about how to develop a mutual communication strategy that will be from the business to the customer, or from the customer to the business and if possible from the customer to the customer. With technological development, customers to communicate with the company have several channels such as email, phone, fax, and websites. Initially, the communication was one way from the company to the customer.

2.4. The Technological Tools of the CRM

CRM relies on technological tools to carry out its mission. The difficulty arises when the volume of customers is considerable. Information technology (IT) enables companies to overcome these difficulties. Through their research, (Francis, 2004) identify three categories of CRM technologies that depend on the three types of CRM.

1. Operational CRM

The centralization of communication processes at the level of a person is remarkable. This centralization takes into account all communication actions developed with customers from sales and marketing operations to the after-sales service including the collection of information from customers. This technology aims at easy access to the information of a category of workers (service engineers) without referring to the only person around whom everything is centralized. Sales force automation (SFA) is a process used as a CRM technology tool. Another important tool used is the Customer Self-Service (CSS). With CSS the company relies on other means of communication such as fax, internet and face to face to provide answers to customers. The telephone usually used is abandoned in favor of these means of communication.

2. Analytical CRM

The main objective here is to use tools and techniques to analyze data from the operational CRM to achieve a classification of customers according to their importance in the volume of sales made by the firm (Tohidi, 2011). There is a strong correlation between operational and analytic CRM. At the end, these analyzed data have a considerable impact on the operational service, which will allow it to better understand the management of commercial performance.

3. Collaborative CRM

To communicate with the company, the choice of the means of communication depends on the customer. It is up to him to choose among the most usual and simple means of communication (telephone, fax, internet, etc.). By doing so, it creates a climate of trust for the customer and his collaboration with the organization will be frequent (Tohidi, 2011).

2.5. Categories of CRM process

Before it is implemented, a series of actions is necessary. A simple definition of the process according to (Francis, 2004). The process is nothing more than the way an organization conducts its activities. The CRM process is a vertical and horizontal process, the back office and front office process and finally the primary and secondary process (Francis, 2004). 1) The vertical process: we are talking about vertical processes when they are an integral part of the structures of the organization. The customer acquisition process is a palpable example. 2) The horizontal process: Product development has a competitive advantage for businesses. Thus, the horizontal process depends on the cross-functional processes of the company. At this level the development process is the main element. 3) The front office process: Generally, problems exist in a relationship between the company and its customers. Companies identify complaints from their customers regarding their products or services. Thus, these complaints are considered by the front-office process. 4) The back-office process: Always in order to satisfy its customers, the top of the hierarchy decides in agreement with the service concerned to manage the flow of the stock in an efficient way. Customers are not associated with this approach. The procurement process is the backbone of the back-office process. 5) The primary process: It is a process that in its operation has financial implications in terms of cost or income. These financial implications are evident for example in the logistics process of courier companies and for insurance companies the claims process is questioned. 6) The secondary process: In contrast to the primary process, the secondary process in its operation has very insignificant financial implications in terms of cost or income.

2.6. The objectives of CRM

Setting up a CRM for organizations is not a coincidence. Some organizations opt for a CRM project because they think they can improve their performance through this tool. In general, a CRM aims at the following objectives:

Loyalty of customers: Having a large number of customers is an asset but the question is how to manage to keep them for a long time. Through the customers the company puts on its most common application which is nothing other than the support of dialogue. This support allows on the one hand to ensure the after-sales service, the call center and the follow-up of the litigation.

Identify the most profitable segments through market segmentation: The company opts for this technique because of the diversity of its activities. It allows it to have a better appreciation of its activities ie the profitable segments and the least profitable. Thus, it adapts special offers by segment for the sole purpose of increasing revenue and meeting customer expectations.

Grow customer value: All customers do not have the same values in terms of revenue for the company. Some customers are profitable for the firm while others do not report anything with sometimes negative margins.

Promotes the adaptation of companies: With the help of its software, a careful look is made on the customer to know his level of satisfaction based on his purchase history. The objective is to adapt the rates, to offer complementary products. It is in a way that a premium to his loyalty.

Perfecting commercial prospecting: In practice CRM only takes into account the customers who are registered in its databases and who benefit from its regular monitoring. Although the prospect is considered a potential or future customer, the big question is whether to include prospects in the CRM. But doing so amounts to adding to the database the results of the commercial prospection. Nevertheless, the software of automation of the sales forces favors the manipulation of the information collected by the commercial operations.

2.7. The advantages and disadvantages of CRM

2.7.1. Advantages of CRM

Competition stimulates companies to perform well. To do this, they use the collection of information via technology. Overall, (Reinartz and Kumar, 2002) have emerged a series of advantages: 1) Increases the performance of the firm: The optimal results are obtained thanks to the staff and the teams concerned who redouble their ardor and produce optimal results; 2) Reduced costs of personalized marketing: Advertising is directed directly to the right place and the right customer. This makes it possible to measure the various promotional actions and to retain the best ones; 3) Collection of reliable customer information: From the processing of this information, the company better analyzes the needs and expectations of customers; 4) Increase the level of loyalty: Special attention to customers will make them more loyal to the company and its products; 5) Increased brand awareness: A consistently consumed and

quality product remains in the minds of consumers; 6) Reclaiming inactive customers: This is possible if the services involved try to reason with customers by offering a new partnership to their advantage.

2.7.2. Disadvantages of the CRM

Although the concept of CRM has developed fairly quickly in recent years, it does not make him an irreproachable tool. There are nevertheless pitfalls in its operation. The following factors may be the cause: 1) Incorrect application of CRM: It is better to define initially the framework of the customer relationship. Without this, CRM may be a tool that harasses customers instead of meeting their expectations; 2) Bad management of CRM: Normally the use of CRM concerns the management of the company and also the marketing department. Instead of better staffing its staff on the use of this instrument through training, some companies have opted to entrust the use of IT service providers and which unfortunately are not entirely satisfactory; 3) Inadequate quality level: The CRM program is a technological tool that helps the company to retain its customers. Dealing with basic customer loyalty issues will enable CRM to be effective. Sometimes companies tend to trust technology too much, so even products and services are not better; 4) Poor quality of execution: Although advertising is an effective communication tool, the organization should pay particular attention to the mail exchanged with customers that will reduce the sources of errors; 5) Financial resources: Implementing a CRM requires the financial means. To be at the same level as the technological evolution then a renewal of the tools is necessary and that obviously has a cost; 6) Time to implement a CRM: Before its implementation, the processes leading to its finalization are usually long.

2.8. Levels of application of the CRM Process

CRM applies to different levels. Three essential levels of CRM (Reinartz et al., 2004) can be identified: functional, client-oriented and company-wide. Kumar and Reinartz (2006) provides a simple explanation for these three levels. *First*, Functional level: The functional level is mainly based on a permanent use of technological tools. Which tools allow the taking charge of activities related to the customer for example the automation of the sales force (SFA) or the treatment of campaigns on the Internet. One of the specificities of a customer relationship management (CRM) explains how the latter in its activities gives details about the customer on all means of

communication used by the company. Information is very important in the relationship between the company and its customers, customer-based customer relationship management aims to the efficient and consistent use of communication channels by the departments of the company related with each category of customers. The departments most concerned are the marketing department, the sales department and the services department.

Second, Client-oriented level: The customer-oriented customer relationship management process is divided into three parts, relationship initiation, relationship maintenance, and relationship termination (Reinartz et al., 2004). Additionally, it is very important because it is the starting point of the process. Initiation in a global way ensures the prospection that is to say the identification of future customers. Therefore, it highlights the chronology of the activities that were carried out before the creation of the relationship. In short, this process brings together the current relationships between the company and its customers. Other examples include sales programs and any loyalty program. However, in any relationship, conflict situations may arise. So, it is important to remedy that. The process of completing the relationship leads to steps towards managing the end of a bad relationship. A bad relationship can come from a customer whose contribution in terms of turnover for the company is low or an unprofitable customer.

The *third* and the last level is Company-wide which, unlike the two previous levels that rely on technology and customer relationship management, aims to stand out from them and build on a globally focused customer-centric vision of the company. In acting, this will be a source of value creation for the shareholders of the said company. But a perfect control of the customer and his desires is important, something that impacts all the departments of the organization, even the departments such as research and development (R & D), the management of the logistics chain.

2.9. Electronic CRM (e-CRM)

e-CRM is defined as an integral part of online distribution and marketing that expands the traditional CRM techniques by integrating technologies of new electronic channels, such as Web, wireless, and voice technologies, and mixing them with e-business applications into the overall CRM strategy of an company (Sivaraks et al., 2011). There is essentially no difference between e-CRM and CRM (Friedlein, 2001). The development of information and communication technologies has facilitated the

transition from traditional CRM to electronic CRM. Some important devices of e-CRM and their advantages as listed below:

1. Web chat and electronic bulletin board

The rapid reception of comments from service personnel by all of the company's customers is the result of online discussions and bulletin boards (Fienberg and Kadam, 2001).

2. Order follow-up

Order tracking allows customers to track the status of their orders themselves. This method maximizes customer satisfaction because it is constantly informed of the status of its order (Fienberg and Kadam, 2001). In addition, through the following explanations, Adebajo (2003) explains how e-CRM creates value for businesses; Lower costs for customer contact. For a cost reduction policy at the administrative and operational level, the company opts for the transfer of certain responsibilities to customers. This practice is a source of added value for the company. Automated campaign management, Increased sales levels based on customer profiling, email marketing practices, etc. Total progress in customer interaction results in improved service and customer satisfaction, but also customer loyalty and ultimately the value of customer lifetime.

2.9.1. Distinction between e-CRM and CRM

There is essentially no difference between e-CRM and CRM (Friedlein, 2001). According to Friedlein (2001), it is important to remember that there are differences in the skills needed to implement e-CRM. The following highlights the differences that characterize the two notions; Interaction with customers in different ways and in an accelerated way with channels whose use is impossible with CRM. Tracking behavioral trends of clients in various ways but impossible with CRM. Accountability of customers in an impossible way with CRM. Customize on an ad hoc basis and at a certain level that is deemed impossible with CRM. The exploitation of a technical structure based on the use of the Internet is more advantageous than that based on a customer database (Friedlein, 2001).

2.9.2. Mobile CRM

According to Sinisalo (2006) e-CRM is about using a mobile support to manage customer relationships and encourage them to start a dialogue with the

company from a mobile support. The CRM mobile is considered a subset of the +electronic CRM (Girinath, 2013). There are different devices that can be used in mobile CRM. These devices include mobile devices, notebooks and portable devices.

Mobile devices: The technological advancement is helping companies set up a mobile CRM project by offering a wide range of equipment. The exploitation of the literature review on mobile CRM has made it possible to identify the most used mobile devices. *Notebook:* Most mCRM applications are supported for PC use. Although notebooks are significantly better in terms of performance and flexibility, their size does not always make them appropriate. *Portable devices:* Portable devices are the media frequently used by mobile CRM (Schierholz, Kolbe and Brenner, 2006). Portable devices provide more user benefits in terms of mobility and flexibility. The user cannot obtain these benefits from a laptop (notebook). Companies must opt for adequate mobile devices because in this respect there is no universal standard support.

Characteristics of the mobile CRM

Overall there are three particular characteristics. *First*, customization of communication: based on the individual use of the mobile phone, this has made it possible to personalize the communication towards each user (Sinisalo et al., 2007). Customer is an important element that requires special attention from the company in order to achieve personalization. It will be for the company to better know its customers according to their needs, their preferences to satisfy them. To achieve personalization, customers must be identified by understanding their preferences, needs and wishes so that businesses can manage their customers.

Secondly, Interactivity: a number of researches have shown that interactivity is a special function of mobile support (Barwise and Strong, 2002). Upstream, the mobile support creates interactivity and downstream inserts all the essential features to create a direct dialogue between the company and its client. Custom conversations result in enhanced loyalty. In conclusion, the use of this function is recommended.

Thirdly, Adaptability: Customers have a preference for mobile phones because they are easily transportable tools and are also channels whose flexibility is justified on time and place (Balasubramanian, 2002). The mobile support can play two roles at once, that of a platform that provides flexible communication and that of a device whose proper use for the purpose of customer relationship management to strengthen relationships with customers (Karjaluo et al , 2007).

2.10. Technology Acceptance Model (TAM)

Developed by Davis (1989), the Technology Acceptance Model is the most popular innovation adoption model. This model has been the subject of numerous studies whose objective was to explore the factors that impact the intention of individuals to use new technologies (Venkatesh and Davis, 2000). Extensive use of TAM has helped to explain and predict the acceptance of information systems by individuals. It appears from Davis (1989) that the behavioral intention of an individual for the purpose of using a system is influenced by two beliefs: perceived usefulness and perceived ease of use.

Perceived usefulness is the likelihood of increased user performance in the organization through the use of technology (Davis, 1989) whereas perceived ease of use is the degree at which the user finds that the use of the system does not require a great effort (David, 1989). The TAM has been criticized. Thus, Legris et al. (2003) made comments about the TAM and would like it to be integrated into a more inclusive model that combines the variables related to the processes of human and social change and finally the adoption of an innovation.

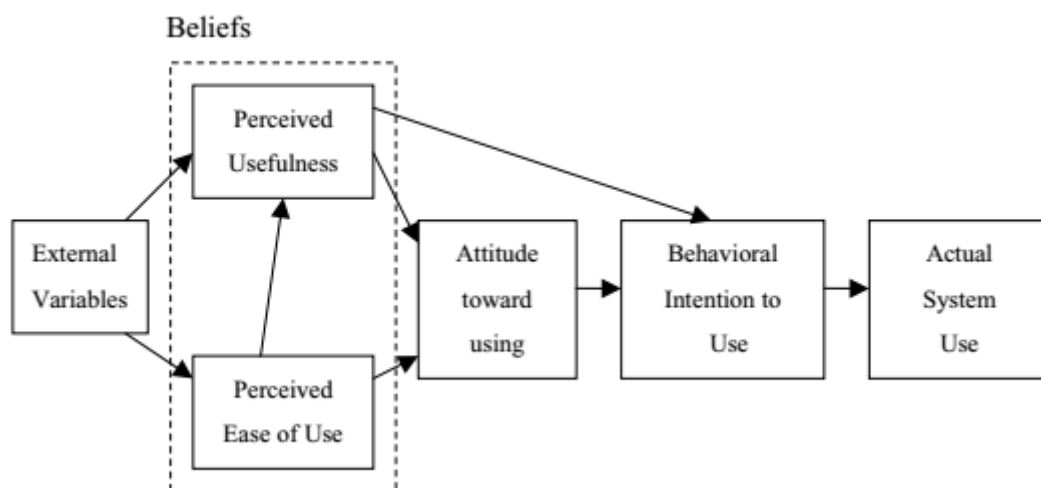


Figure 2.2: Technology Acceptance Model (David, 1989)

2.10.1. Additional constructs of the original TAM

Other researchers have expanded the basic model by adding additional concepts that may increase the relevance of their studies (Bhatti, 2007). The present study, based on the TAM as a starting point, adds six additional concepts for research

model: context, perceived need, perceived trust, perceived value, perceived risk and customer satisfaction.

Construct	Definition	Adapted from
Context	The set of information that can be used to give details about the state of the entities that are recognized as appropriate for the interaction between a user and an application, as well as the user and the application itself. Entities may be a person, an object or a place	Mallat et al., 2008
Perceived need	It is the set of requirements that drive the action of clients based on their perceptions for the use of innovation (Awasthi et al., 2012).	Awasthi et al., 2012
Perceived Trust	The set of beliefs or trust of the user for the level at which a certain mobile application can offer guarantees on security and privacy.	Pavlou (2001),
Perceived value	The perceived value refers to the consumer's general appreciation of the utility of a product based on the idea of what is received and what is given.	Kim et al. (2007)
Perceived risk	The perceived risk is a particular user's prediction to cope with a loss in order to achieve the desired results of using mobile CRM services on a mobile phone.	Pavlou (2001),
Customer satisfaction	“The positive feeling that the customer feels as a result of a service received.” It’s also defined as “the result of an emotional feeling expressed by the client towards his service provider.”	Cronin et al., (2000); (Johson et al., 2008).

2.11. Behavioral Intention

Existing relationships between behavior and a number of factors such as attitude, subjective norms, and control of perceived behavior have benefited from the role of behavioral intention as a primary mediator (Bailey et al., 2018). The future behavior of an individual through behavioral intentions can be either avoided or planned (Swan, 1981). Through their study, Eagly and Chaiken (1993) assert that intention is one as a psychological construct different from the attitude and this shows the motivation of the person, for example his or her voluntary plan to make efforts to adopt a behavior. In the case where the individual has the ability to fully control the behavior that is to say when the behavior is entirely intentional, then in this case only the intentions should allow to correctly predict the behavior (Ajzen and Fishbein). The findings of several studies support the idea that behavioral intentions have a positive impact on users' behavior regarding technologies (Mviya et al., 2017). Typically, this behavior results in actions such as downloading content or images, sharing messages (Bailey et al., 2018).

2.11.1. Intention to Use Mobile Commerce Application

It is important to understand the reciprocal relationships between the company and the customers that lead to the provision of services in an electronic context (Parasuraman and Zinkhan, 2002). Balasubramanian et al. (2002) say mobile consumers' use of mobile communication channels is increasing at a very high frequency, making mobile-based tools popular in our everyday life. Mobile services are becoming increasingly important for business and consumers because of popular, universal and general access to information and services, as well as the possibility of a unique and personalized exchange of information (Watson et al. al 2002). Mobile services in an accelerated way have become essential for the business and consumers for various reasons such as access anywhere and anytime, general access to information and services, and the opportunity for a unique and individualized exchange of information (Doll et al., 198). To respond to the motivations of consumers, a series of actions is necessary. First, it will be necessary to understand the driving force behind the intention of consumers to use mobile services and secondly to adapt these services according to consumer expectations. The Technology Acceptance Model played a key role in explaining behavioral intention. Based on some observations, this model has been extended with three additional theories to explain the intention to use mobile services. Regarding the three theories, it is about Information Systems Research, Uses and Gratification Research and Domestication Research.

1. Information Systems Research

Fishbein and Ajzen (1975) state that multi-attribute models are sources for predicting behavioral intention. The specificity of these models is justified by their ability to focus on the beliefs of users on several functions of technology. The TAM from Davis (1989) is a model with a considerable number of elements. It also makes a prediction on the intention of individuals to make use of technology based on their perceptions of the conviviality and usefulness of the system. Of the five concepts contained in the TAM, attitude towards use and intention to use clarify the intention to use mobile services.

Fishbein and Ajzen (1975) define the attitude towards use as a set of positive or negative feelings of an individual towards the targeted behavior. Intention to use, it has its origin in the definition of behavioral intention that comes down to the strength

of the intention of an individual to adopt a specified behavior. The general framework of the elements of the TAM, although exploited particularly to provide an explanation of the intention to use the technology in enterprises (Doll et al., 1998), has allowed other models to use it through concepts such as: that ease of use and attitude toward use to develop the use of self-service technology in a daily living environment (Dabholkar and Bagozzi, 2002). Considering the TAM, it appears from the observations that conviviality is initially considered to be anterior to perceived utility and attitude towards use. In addition, the perceived usefulness should probably have a direct impact on the intention to use and also on the attitude toward use. In conclusion, the attitude towards use influences behavioral intention and the latter in turn influences the actual behavior.

2. Uses and Gratification Research

The theory of uses and gratifications is an old theory that took off around the 1940s when the desire to study the contribution of individuals to different forms of media behavior became more pronounced. There is a clear difference between the anticipated use and the current use of Uses and gratifications Research. Early use was focused on mass communications while the current research was expanded to study a wide range of technologies ranging from home phones to mobile phones. According to this theory, the goal of active users is to find gratifications in the use of media and technologies according to their personal motivations (Lin, 1996). Consumers generally do not have the same motivations for using a specific technology. It's in this logic that previous research has proposed enough fundamental reasons, positive or non-positive, for the use of the media. Examples include ease of use, information retrieval, usefulness, escape, relaxation, social interaction, entertainment, time consumption, friendship, status, and some reasons related to the function (Höflich and Rössler, 2001). The analysis of these different motivations can facilitate the illustration of the relationships between the individual characteristics related to the emotional and psychological factors, also the varied uses of the technology. In general, this theory gives enough information for a better understanding of the deep motivation of consumer intentions to adopt mobile services.

3. Domestication Research

One of the aims of the theory of domestication research is to look for the reasons that favor the adoption of a new technology in the everyday life of an individual (Pedersen, 2002). More specifically, Haddon (2001) states that this theory studies the

individual's perception of technology and utility in his life. Different studies have been based on this theory in order to understand the mechanism of acceptance of many technologies in individuals. Thus, Skog's (2002) study aimed to examine the importance of mobile phones in young people's everyday life in Norway. This study highlighted the stylistic and symbolic characteristics of mobile phones. Moreover, the design of mobile phones is declared considerable for their owners as far as socially it impacts the impression that others have of them.

According to Grinter and Eldridge (2001), they have put more emphasis on the fact that mobile phones act as intermediaries for strong coordination. In summary, this demonstrates the importance of mobile support for maintaining permanent relationships between individuals. Most studies based on this theory explain the process by which the use of technology has managed to occupy a prominent place in everyday life. By using technology, users are rewarded with fashion, status and sociability (Leung and Wei, 2000). These gratifications are necessary because they establish that the use of the mobile services can be a vector of expression for an individual in a public frame of his personality, his status and his image.

2.11.2. Online Purchase Intention

Consumer behavior on the internet is often viewed as fundamentally different from that observed in a physical environment (Hoffman and Novak, 1996). To understand the reasons consumers are pushing to adopt or reject online shopping, it is important to review the key definitions, theories and variables used to explain consumers' online shopping intention.

Purchase intention is a concept that has been extensively studied in consumer behavior. Considered as a basis for predicting consumer behavior, intention to purchase has been described in literature as a response to desire in a linear decision-making process (Darpy, 1997). The desire being a deep desire to fill a gap, the formation of the intention is concretized through an amplification characterized by a succession of commitments of the consumer towards a third party (customer, seller or partner). As a result, three types of definitions have been proposed in the literature to explain purchase intention. According to O'Shaughnessy (1983), purchasing intention as a cognitive construct. He states that it is a result of a desire that has been cognitively treated, to the extent that we cannot desire what we do not know and that is not part of our culture.

On the other hand, Belk (1985) noted purchasing intention as a dynamic concept, which describes the set of instructions that people give themselves to act in a certain way, considering in this way the planning direction of the purchase intention. Contrary to the above two definitions, Dussart (1983) stated purchase intention as probability of individual purchase of a specific product or a specific brand. However, Denis Darpy (1997) proposed to summarize all of his definitions around the planning dimension, defining the intention to purchase as the result of a desire, or a need, treated cognitively which leads to the purchase planning.

The concept of online purchase intention continues to attract the attention of marketing researchers. Largely mobilized by researchers, it is mainly used to predict the actual purchasing behavior that can predict sales of a product or service over time. Moreover, the definition of intention to purchase online has been the subject of consensus among all researchers. It has been defined as the situation in which a customer is ready to engage in an online transaction (Ling et al., 2010). Furthermore, van der Heijde et al. (2001) defined as the point at which the consumer is inclined to buy a product or service from a specific website. Additionally, online purchase intention is also considered the intention of the consumer to engage in an exchange relationship with an online seller (Zwass, 1998). All these definitions have been gathered to conclude that the intention to purchase is the moment when the consumer commits to buying a product or service on the internet.

The literature review also shows that most theories that have addressed this concept, consider online purchase intention as the best indicator of buying behavior. Among these theories; Theory of Reasoned Action (TRA) of (Ajzen and Fishbein, 1980), Theory Planned Behavior (TPB) of (Ajzen, 1991) and Technology Acceptance Model of (Davis, 1989).

There are different determinants of online purchase intention. In this part we will present some variables that have been retained by literature researchers to explain consumers' intention to buy online. *The innovativeness*: By its desire to innovate, its attraction to the novelty, the personality of the consumer is also a determinant of the intention to buy online. Defined as the degree to which a person adopts an innovation before others (Rogers, 1995), innovativeness is considered a personality trait that everyone has but to different degrees. Innovators are a resource for online retailer because they are behind the process of distributing the purchase over the Internet (Limayem, Khalifa and Frini, 2000). A positive relationship between innovativeness

and purchase intention has been identified by Eastlick and Lotz (1999). They believe that innovators are more likely to shop online than other consumers.

The Online Shopping Experience: it is urged that the general online experience or familiarity can be determinants of online buying (Gefen, 2000; Corbitt, 2003; Koufaris, 2004). Effectively, the more the individual has previous experiences in buying on the Internet, the more this process becomes a habit that allows him to evaluate the possibilities of buying online with greater ease.

Perceived ease of use: the perceived ease of use represents the minimum effort that the individual must provide for the use of a technology. It can also be the degree at which the user finds that the use of the system does not require a great effort (David, 1989). The effort saved through the ease of use can be redistributed later to accomplish more work with the same effort (Davis, 1986). In a specific case of online shopping, Vincent (2006) reports that perceived ease refers to the ease of browsing, searching for information and obtaining services from websites.

Perceived usefulness: perceived usefulness is the likelihood of increased user performance in the organization through the use of technology (Davis, 1989). This is why technologies that are distinguished being useful are more likely to be accepted and used by potential users. As part of our study, perceived usefulness refers to the benefits that the individual expects to derive from the use of the internet such as time saving, money, convenience and access to additional information.

Transaction security: One of the most cited barriers in online shopping research is the issue of security and privacy. The consumer places more importance on the security of the transactions notably the security of the payment. This variable may be a primary determinant of online purchase intention due to the uncertainty of distance purchase.

Trust: it's an essential factor in any exchange relationship and on the Internet, it becomes even more important. The absence of human contact and the impersonal nature of the exchange place a sense of uncertainty in the mind of the consumer. In a virtual context, according to Lee and Turban (2001) trust in online shopping is like "the willingness of a consumer to be vulnerable to the actions of an internet seller in an online transaction despite the absence of checking or monitoring on this online seller".

3. CONCEPTUAL FRAMEWORK

The objective of this session is to explain the theoretical framework according to the literature review and to make a comparative study of the different concepts. Then the hypotheses emitted according to the theory will be expressed and the conceptual relations will be discussed. Finally, the research model will be presented.

3.1. Hypothesis development

3.1.1. Technology Acceptance Model and Customer Satisfaction

In many studies, additional variables were introduced into the TAM and the latter enhanced the model's prediction capability. For example, to study the impact of TAM factors on Internet banking use, the perceived risk was added to the model by Safeena et al. (2011). Concepts such as context, perceived need, perceived trust, perceived value, perceived risk, and finally satisfaction are the additional concepts adapted to the TAM in the research model of this study. In the literature review, we mentioned that this model is one of the most popular tools for studying consumer behavior in the adoption of new technologies.

However, despite its popularity it has been criticized by some authors because it excludes economic factors. In the same vein, the concept of "customer satisfaction" has been inserted to replace the concept of "attitude towards use". Customer satisfaction will lead to a better overall analysis of the customer experience because the model focuses on the study of behaviors before adoption. According to Weiner (1986), the evolution of cognitive thoughts results in emotional responses, which results in client value judgments affecting perceptions of satisfaction.

According to Bhatti (2007), perceived usefulness is an essential prerequisite for the use of innovation. In this study, perceived usefulness is defined as the level at which consumers consider the use of mobile services beneficial in their daily lives. In addition, the particularity of mobile services is the omnipresence of the service (Boadi et al., 2007). Through the possibility of mobile services to consumers to connect at anytime and anywhere, this clearly proves the usefulness of the service for consumers. As a result, this benefit of the service to the consumer increases their level of satisfaction and will motivate them to use the mobile service.

Davis (1989) mentioned that perceived ease-of-use is an essential element in investigating consumers' intention to use technologies. It defines perceived ease of use as the level at which mobile consumers consider that the use of mobile services will require no effort. A mobile service used without effort leads to the full satisfaction of the user (Huang et al., 2004). In addition, Venkatesh and Davis (2000) in their study argue that simplicity in the use of mobile services influences the utility of these services.

Fornell et al (1996) describe customer estimations of the quality of the product or service based on price and conclude that the concept of perceived value is positively influenced on the level of customer satisfaction. He also asserts that perceived value is an essential condition for the overall assessment of satisfaction.

In the context of mobile services, buying on the internet is considered very risky than buying in a physical store because the operation is carried out remotely. All this creates a climate of suspicion in the customer. Trust is therefore essential. From these observations, Chiou (2004) mentioned that perceived trust can also have an influence on satisfaction, especially since the trust factor is very necessary for the consumer to evaluate the results.

The risk in a purchase decision is often unavoidable when there is uncertainty in the post-purchase consequences (Rao et al., 2007). According to Jacoby and Kaplan (1972), the perceived risk is composed of psychological, physical, financial, social and finally performance risks. From the observation that the perceived risk is an addition of uncertainty and negative results, Peter and Ryan (1976) conclude that the perceived risk would have an impact on the purchase decision. To support this assertion, Eid (2011) argues that perceived risk negatively affects customer satisfaction. The literature review did not address the connection between context and satisfaction. We will see from the analysis of the results of our research the nature of the link between these two concepts. We propose a following hypothesis:

- H1: Perceived usefulness is positively related to customer satisfaction.
- H2: Perceived ease-of-use is positively related to customer satisfaction.
- H3: Context is positively related to customer satisfaction.
- H4: Perceived value is positively related to customer satisfaction.
- H5: Perceived risk is positively related to customer satisfaction.
- H6: Perceived usefulness is positively related to intention to use.
- H7: Perceived ease-of-use is positively related to intention to use.

H8: Context is positively related to intention to use.

H9: Perceived value is positively related to intention to use.

H10: Perceived risk is negatively related to intention to use.

H11: Perceived usefulness is positively related to online purchase intention.

H12: Perceived ease-of-use is positively related to online purchase intention.

H13: Context is positively related to online purchase intention.

H14: Perceived value is positively related to online purchase intention.

H15: Perceived risk is positively related to online purchase intention.

3.1.2. Customer Satisfaction and Intention to Use Mobile Commerce Application

In the literature review, we stated that of the five concepts contained in the TAM, the attitude towards use and intention to use clarifies the intention to use mobile services. Thus, according to Fishbein and (k) the attitude towards the use is a set of positive or negative feelings of an individual towards the targeted behavior while the intention to use finds its origin in the definition of behavioral intent that comes down to the strength of an individual's intention to engage in specified behavior. Focusing on new technologies, satisfaction with past uses is considered to be the most influential indicator for maintaining users (Bhattacharjee, 2001). Continuing in the same direction, Devaraj et al. (2002) in the area of e-commerce have assessed satisfaction and satisfaction appears to be an important factor in enabling customers to choose their channel.

In the recent past, researchers have concluded that satisfaction positively influences loyalty intentions for online shopping (Chiu et al., 2009) and accelerates the use of websites (Lin et al. , 2005) and also electronic services (Liao et al., 2007). In conclusion, the literature confirms that satisfied consumers have a greater intention of using the company's products (Oliver, 1999). We formulate the following hypothesis:

H16: Customer satisfaction is positively related to intention to use.

3.1.3. Customer Satisfaction and Online Purchase Intention

Previously, we mentioned that the intention to buy online is the situation in which a customer is ready to engage in an online transaction (Ling et al., 2010). Also, purchase intent has been described in literature as a response to desire in a linear

decision-making process (Darpy, 1997). At the same time some new definitions that address consumer behavior are moving away from satisfying the need and finding that consumer awareness is essential to assessing their particular needs prior to purchase but very often this is not accurate (Halstead, Hartman and Schmidt, 1994).

Exploitation of the literature review of previous studies has revealed that there is a positive relationship between satisfaction and future purchase intention (Bitner, 1990). Especially satisfied consumers will show purchase intentions while unsatisfied consumers will end their future use (Olivier, 1981). For this study, this could have an impact on the attitude of customers towards increasing their level of satisfaction. Additionally, satisfaction positively impacts an individual's intention to buy online (Chiu et al., 2009). Also, according to Belanche et al. (2012) satisfaction also affects an individual's intention to purchase products or services through an online seller. To answer the question of whether there is a direct link between customer satisfaction and online purchase intention, we will formulate the following hypothesis:

H17: Customer satisfaction is positively related to online purchase intention.

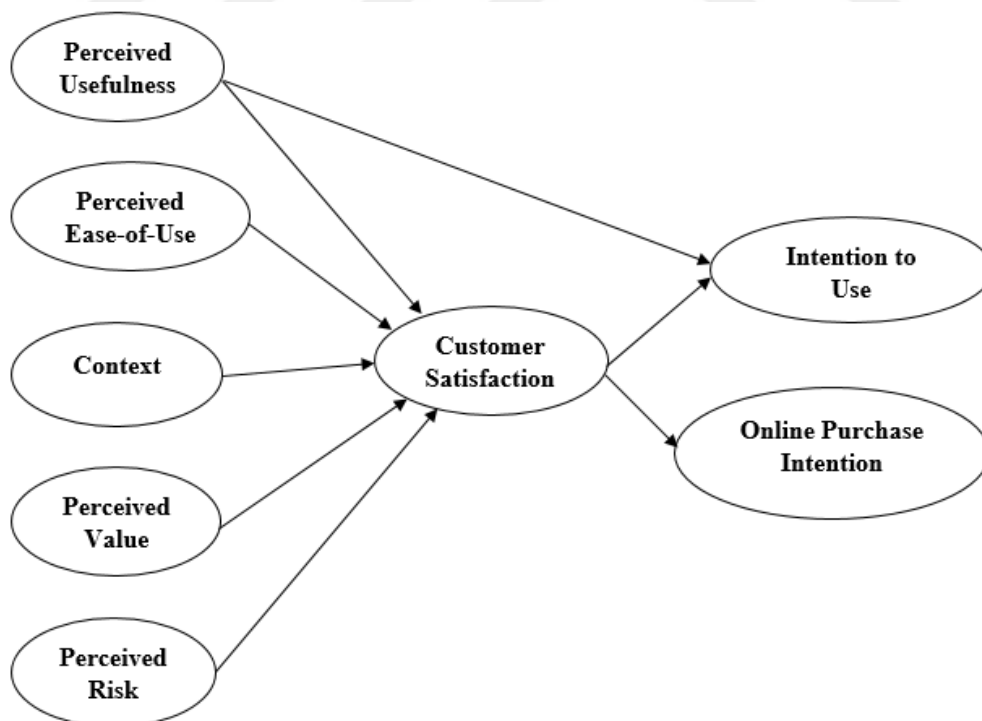


Figure 3.1: Conceptual model

4. METHODOLOGY

In this part of the study, the research sample, the scales used to test the concepts in the research model, the sampling technique and the sampling instruments will be explained in detail.

4.1. Sampling Framework

4.1.1. Place and Population of the Study

This study was conducted entirely in Turkey in several cities such as Koceali, Ankara, Istanbul and Izmir. The choice to carry out the study in this country is due to its high technological level. Indeed, this study focuses on new technologies. Technological progress in this country should be a source for the reliability of the results obtained. In addition, other reasons that motivate the decision to carry out the survey in Turkey in the cities mentioned above, is the fact that these are essentially the main cities of the country with a large population with the exception of Kocaeli and finally the dynamism of its companies oriented towards innovation. We suggest in future that the results of this study be reviewed again because Turkey is a vast territory of about 81 departments. The sample of the study is not sufficiently representative of the Turkish population.

4.1.2. Sampling Requirements

The collection of information was a rather delicate exercise, so we did not require a particular attitude to the participants. There was talk of explaining to them that the research had an academic purpose and that the data collected will not be disclosed anywhere and will remain confidential. Subsequently, they were asked not to put their identities on their answers and to answer all questions sincerely.

4.1.3. Sampling Technique

According to Gauthier (2009) and Pettersen (2010), there are two sampling methods in the literature, probabilistic techniques and non-probabilistic techniques. Probabilistic techniques, also known as random techniques, are based on randomness in the choice of units and they provide a better representation of the sample. They also make it possible to generalize the results on the whole population with exactitude. But these are techniques that require constraints in terms of time, financial resources and

an exhaustive list of the basic population. In contrast to probabilistic techniques, non-probability techniques are not based on chance but on an examined choice of the sample. The non-probabilistic method is more suitable in the case of our study.

The effective sampling method that will better fit our study is the snowball method. It is an approach that requires the use of people as sources of identification. This approach consists in using people as sources of identification of complementary sampling units. Thus, these people contacted provide in turn other references. The sample is thus formed by analogy with a snowball that grows when rolled (d'Astous et al., 2006).

To carry out this snowball sampling, we started with an initial group of friends made up of international students to inform them of the study. The members of this group were contacted by various means such as the telephone, the use of social networks, direct contact and sending e-mails.

4.2. Sampling Instruments

4.2.1. Current Survey

For the creation of scales, we had chosen multiple choice scales in our study to measure the variables. To do this, the five-degree Likert scale (from 1 = strongly disagree to 5 = strongly agree) was selected. The survey is divided into ten variables for a total of 41 statements and consists of two parts. The first part contains the demographic information's and the second part concerns variables and their scales of measurement.

In summary, the first part contains questions about gender, occupation, age, monthly income, frequency of commerce services usage, awareness about mobile commerce services and usage of mobile commerce application.

The second part of the survey is illustrated as follows:

Perceived Usefulness

This variable contains in total 6 questions that have been adapted from Moore and Benbasat (1991). The formulations forming the scale are given in table.

Table 4.1: Perceived Usefulness.

1. Using mobile commerce services makes it easier to do my task.
2. Using mobile commerce services improves my task performance.

3. Using mobile commerce services enables me to accomplish tasks more quickly.
4. Using mobile commerce services saves me time and effort in performing tasks.
5. Mobile commerce services is useful in performing my task.
6. Using mobile commerce services enhances my task effectiveness.

Perceived ease-of use

The 3 questions to measure this variable were adapted from Moore and Benbasat (1991). The questions of the variable are recorded in the table.

Table 4.2: Perceived ease-of-use.

1. I feel learning to use mobile commerce application would be easy.
2. I feel it would be easy to use mobile commerce application.
3. It is convenient to access mobile commerce application.

Context

The context variable was measured by a scale of 3 questions. The scale has been adapted from Moore and Benbasat (1991). The scale is recorded in the table.

Table 4.3: Context.

1. Using mobile commerce application would be suitable for me to know about my account details.
2. I would like to use mobile commerce application if I am far from the store.
3. I would like to use mobile commerce application if I am hurry or need the account information.

Perceived Need

This variable is measured by 3 questions adapted from Moore and Benbasat (1991). The table illustrates the scale of measurement.

Table 4.4: Perceived Need.

1. I have compelling reason to use mobile commerce services.
2. I feel a need of using mobile commerce services.
3. I cannot do without mobile commerce services.

Perceived Trust

This variable contains in total 2 questions that have been adapted from Moore and Benbasat (1991). The formulations forming the scale are given in table.

Table 4.5: Perceived Trust.

1. Mobile application would be reliable for commerce.
2. I feel very confident about mobile commerce application for banking tasks.

Perceived Value

The 2 questions to measure this variable were adapted from Moore and Benbasat (1991). The questions of the variable are recorded in the table.

Table 4.6: Perceived Value.

1. Compared to the effort I need to put in, I think the use of mobile commerce application would be beneficial to me.
2. Compared to the time I need to spend, I think the use of mobile commerce application would be worthwhile to me.

Perceived Risk

This variable contains 2 questions that have been adapted from Moore and Benbasat (1991). The formulations forming the scale are given in table.

Table 4.7: Perceived Risk.

1. I feel using mobile commerce application in monetary transactions is risky.
2. I feel using mobile commerce application puts my privacy at risk.

Satisfaction

A scale of 8 questions made it possible to measure this variable. 6 questions are adapted from Bhattacharjee (2001) and 2 questions from Oliver and Swan (1989). The questions of the variable are recorded in the table.

Table 4.8: Satisfaction

1. I am very contented with the mobile commerce application.
2. I am very pleased with the mobile commerce application.
3. I am very delighted with the mobile commerce applications.
4. Mobile commerce application develops the right solution for your human resources problems.
5. It is easy to contact the store location by telephone.
6. Mobile commerce online invoicing process is good.
7. In general, user is very satisfied with the services offered my mobile commerce application
8. Overall, the service of mobile commerce comes up for user expectations.

Intention To Use Mobile Commerce Application

Intention to use mobile commerce application is measured with 6 items (2 and 4 respectively) adapted from Venkatesh and Davis (1996) and Robinson (2006). The formulations forming the scale are given in table.

Table 4.9: Intention To Use Mobile Commerce Application

1. Assuming that I have access to the mobile services, I intend to use them.
2. I intend to increase my use of mobile services in future.

3. I feel good about using the mobile commerce application.
4. Using mobile commerce application is worthwhile.
5. I am willing to use mobile commerce application.
6. I predicted that, I would use mobile commerce application in the next few months.

Online Purchase Intention

Online purchase intention is measured with 6 questions adapted from Macinstosh and Lockshin (1997).

Table 4.10: Online Purchase Intention.

1- I will likely repurchase products at those internet shopping malls I have visited.
2- I like shopping at internet shopping malls.
3- Online shopping malls are a fit means to buy products.
4- The probability that I would consider buying online from mobile commerce application is high.
5- My willingness to buy product online from mobile commerce application is high.
6- When my intention is to merely browse through the mobile commerce application, I sometimes make a purchase.

4.3. Data Collection Procedure

For our study, we preferred an online survey method. According to Gueguen (2000), the online questionnaire method seems to be more desirable in terms of development because it is totally different from postal surveys. Subsequently, we used a "Google forms" survey tool to state our questionnaire and obtain a web address. The questionnaire was spelled out in Turkish and English.

After developing and posting the questionnaire, participants were contacted by telephone to inform them of the sending of the two survey links so that each respondent could fill it in one of the two languages. We used the "Whatsapp" app specifically to share the link in the discussion groups. Very often, we consulted the evolution of the survey online and made phone calls to relaunch participants. The information was collected from April 22 to May 24, 2019. In total, 217 responses were collected.

4.4. Data Analysis

After the automatic closure of the survey, we downloaded all 217 responses from a Microsoft Excel file provided by Google Forms. Then we codified the database. Numerical values were assigned to the questions about the demographic part and the variable part in order to obtain an easily manipulated database. After this step, we had inserted the database in the program called IBM SPSS Statistics 21.

Before IBM SPSS statistics 21 was used for the various analyzes, it was checked whether the participants completed the questionnaire. It was found that some parts of the questions on demographic information and variables were not completed by the participants. We decided to retain these answers so as not to prejudice the quality of the analysis. Thus, all 217 responses were used for the study.

Finally, we used statistical methods to better analyze consumer responses. The demographic information studied allowed the analysis of users and potential users of mobile services. Responses to the variables were also analyzed to assess the attitude of clients towards the use of mobile services.



5. RESULTS AND FINDINGS

In this part of our research, we present analyzes of data collected from our sample on an SPSS basis. This part is organized around 3 sections. The first step is to draw up a descriptive statistic of the demographic information of the respondents. Then, we study the validity and the reliability of the scales of measurement and in the last section we proceeded to correlation and regression analyzes to validate or reject the hypotheses of research.

5.1. The Frequencies of the Demographic Characteristics

The demographic characteristics of the participants are shown in the tables below.

Table 5.1: Gender

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	153	70,5	70,5	70,5
Female	64	29,5	29,5	100,0
Total	217	100,0	100,0	

153 of respondents are male (70,5%) and 64 are female (29,5%).

Table 5.2: Age.

	Frequency	Percent	Valid Percent	Cumulative Percent
18-27	117	53,9	53,9	53,9
28-37	66	30,4	30,4	84,3
38-47	31	14,3	14,3	98,6
Above 47	03	1,4	1,4	100,0
Total	217	100,0	100,0	

The most representative age group of respondents is the age group between 18 and 27 years old with 53.9% (117 people). Then 66 people whose age is between 28 and 37 years (30.4%). The third largest group is respondents aged between 38 and 47, with 31 people (14.3%). Finally, 3 people over 47 (1.4%) are also among the respondents.

Table 5.3: Occupation.

	Frequency	Percent	Valid Percent	Cumulative Percent
Student	147	67,7	67,7	67,7
Salaried	55	25,3	25,3	93,1
Self-employed professionals	4	1,8	1,8	94,9
Self-employed	10	4,6	4,6	99,5
Retire	1	0,5	0,5	100,0
Total	217	100,0	100,0	

The table shows that 67.3% of respondents are students (147 students) and 25.3% are employees (55 salaried).

Table 5.4: Monthly Income.

	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 10 000 TL	200	92,2	92,6	92,6
10 001 – 20 000 TL	9	4,1	4,2	96,8
20 001 – 30 000 TL	1	0,5	0,5	97,2
More than 30 000 TL	6	2,8	2,8	100,0
Total	216	99,5	100,0	
Unanswered	1	0,5		
Total	217	100,0		

As shown in the table, the majority of respondents equal to 200 people (92.6%) have a monthly income of less than 10,000 TL and 9 people (4,2%) have a monthly income of 10,000 and 20,000 TL.

Table 5.5: Frequency Of Commerce Services Usage

	Frequency	Percent	Valid Percent	Cumulative Percent
Daily	60	27,6	28,0	28,8
Weekly	54	24,9	25,2	53,3
Monthly	69	31,8	32,2	85,5
Quartely	31	14,3	14,5	100,0
Total	214	98,6	100,0	
Unanswered	3	1,4		
Total	217	100,0		

In the table, it's shown that 69 among respondents people use mobile services monthly (32.2%), 60 people use them daily (28%). 25.2% of respondents (54 people) use these services weekly. Finally, 31 people (14.5%) use these services quarterly.

Table 5.6: Awareness About Mobile Commerce Service.

	Frequency	Percent	Valid Percent	Cumulative Percent
Not Aware	32	14,7	14,7	14,7
Aware	185	85,3	85,3	
Total	217	100,0	100,0	100,0

85.3% of respondents (185 people) are aware of mobile services and 14.7% of respondents (32 people) are not aware.

Table 5.7: Using of Mobile Commerce Application

	Frequency	Percent	Valid Percent	Cumulative Percent
Use	87	40,1	40,1	40,01
Do not Use	130	59,9	59,9	
Total	217	100,0	100,0	100,0

130 people (59.9%) do not use the mobile commerce application while 87 people (40.1%) use it.

5.2. Data Reliability and Validity

The variables in our study were measured using 41 questions based on the Likert scale. It is important to check the accuracy and validity of the measurement scales used before starting the statistical analysis. The reliability and validity of the instrument are essential to ensure the consistency and relevance of information obtained from our sample. Referring to the authors Perrien, Chéron and Zins (1983), accuracy is defined as the degree to which the research instruments used consistently measure the studied construct while the validity corresponds to the degree to which the research instruments used measure perfectly and only the studied construct. Thus, the Principal Component Analysis (PCA) aims to verify the validity of our constructs and the Cronbach Alpha is the statistical index. This index estimates the internal consistency between the items. The closer this index is to 1 (and greater than 0.7), we consider that the variables related to this component actually measure the same thing (internal consistency). Measurements with a Cronbach alpha of greater than or equal to 0.50 are considered sufficient (Nunnally, 1978).

The factor analysis was carried out in three stages:

1. Test of the model's significance: the KMO coefficient (Kaiser, Meyer and Olkin) and the Bartlett test which is an inference test performed on the correlation matrix with a significance threshold ($P < 0.05$).
2. Determination of the legitimacy of each variable in the model. The percentage of variance of each variable explained by the whole model was retained at least 50%.
3. Extraction and determination of the number of factors to reduce the number of initial variables.

As a result of the independent variables factor analysis, 16 questions were distributed to 5 different factors, 7 questions for satisfaction, 6 questions for intention to use and 6 questions for online purchase intention.

1. Independent Variables

Table 5.8: KMO and Bartlett's Test for Independent Variables

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			,886
Bartlett's Test of Sphericity	Approx. Chi-Square		1641,325
	df		120
	Sig.		,000

Table 5.9: Independent Variables Factors Loadings

Variables	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Perceived Usefulness					
PUS2	0,807				
PUS6	0,742				
PUS1	0,699				
PUS3	0,673				
PUS5	0,581				
Perceived Value					
PVAL2		0,804			
PVAL1		0,746			
PUS4		0,702			
Perceived Ease-Of-Use					
PEOU1			0,773		
PEOU3			0,761		
PEOU2			0,755		
Context					

CTXT2				0,788	
CTXT3				0,706	
CTXT1				0,623	
Perceived Risk					
PRIS2					0,902
PRIS1					0,893

Level of significance, PUS: Perceived Usefulness, PVAL: Perceived Value, PEOU: Perceived Ease-of-Use, CTXT: Context, PRIS: Perceived Risk.

2. Satisfaction

Table 5.10: KMO and Bartlett's Test for Satisfaction.

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			,822
Bartlett's Test of Sphericity	Approx. Chi-Square		496,202
	df		21
	Sig.		,000

Table 5.11: Factor Loadings for Satisfaction

Variables	Factor 1
Satisfaction	
STF7	0,805
STF2	0,781
STF3	0,753
STF1	0,717
STF8	0,694
STF4	0,653
STF6	0,561

Level of significance, STF: Satisfaction.

3. Intention To Use Mobile Commerce Application

Table 5.12: KMO and Bartlett's Test for Intention to Use

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy			,904
Bartlett's Test of Sphericity	Approx. Chi-Square		680,928
	df		15
	Sig.		,000

Table 5.13: Factors Loadings for Intention to Use

Variables	Factor 1
Intention To Use	
IU5	0,882

IU2	0,842
IU1	0,833
IU6	0,809
IU3	0,791
IU4	0,751

Level of significance, ITU: Intention to Use.

4. Online Purchase Intention

Table 5.14: KMO and Bartlett's Test for Online Purchase Intention.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		,863
Bartlett's Test of Sphericity	Approx. Chi-Square	444 ,938
	df	15
	Sig.	,000

Table 5.15: Factors Loadings for Online Purchase Intention

Variables	Factor 1
Online Purchase Intention	
OPI5	0,858
OPI4	0,833
OPI2	0,785
OPI3	0,731
OPI1	0,635
OPI6	0,584

Level of significance, OPI: Online Purchase Intention

Table 5.16: Reliability Analysis

Variables	Number Of Questions	Cronbach Alfa (α) Ratings
Perceived Usefulness	5	0,851
Perceived Value	3	0,826
Perceived Use-of-Use	3	0,829
Context	3	0,756
Perceived Risk	2	0,790
Customer Satisfaction	7	0,836
Intention To Use	6	0,901
Online Purchase Intention	6	0,832

Reliability derives from the internal consistency of the measure, which takes into account the average relationship between the questions of a variable (Kerlinger, 1986). Regarding the previous Table 5.1, all alpha values are between 0.756 and 0.901. These

values are within the reliability limits mentioned in the literature (Bagozzi and Yi, 1985).

5.3. Hypothesis Testing

The study of reliability and validity yielded conclusive results. This leads to the conclusion that the research model is reliable and valid for the purpose of the research. Subsequently, the test of the following hypotheses addressed in the literature review will be tested.

H1: Perceived usefulness is positively related to customer satisfaction.

H2: Perceived ease-of-use is positively related to customer satisfaction.

H3: Context is positively related to customer satisfaction.

H4: Perceived value is positively related to customer satisfaction.

H5: Perceived risk is positively related to customer satisfaction.

H6: Perceived usefulness is positively related to intention to use.

H7: Perceived ease-of-use is positively related to intention to use.

H8: Context is positively related to intention to use.

H9: Perceived value is positively related to intention to use.

H10: Perceived risk is negatively related to intention to use.

H11: Perceived usefulness is positively related to online purchase intention.

H12: Perceived ease-of-use is positively related to online purchase intention.

H13: Context is positively related to online purchase intention.

H14: Perceived value is positively related to online purchase intention.

H15: Perceived risk is positively related to online purchase intention.

H16: Customer satisfaction is positively related to intention to use.

H17: Customer satisfaction is positively related to online purchase intention.

The analysis of the above research hypotheses was tested in the framework of the statistical package program.

Statistics is a branch of science that deals with the collection, classification, presentation and interpretation of digital data. Descriptive statistics include methods and techniques for collecting, describing and presenting numerical data. In our study, the analyses (factor analysis, reliability, descriptive analysis), as mentioned in the section on sample selection, were carried out using a questionnaire filled in by 217 people with different demographic characteristics. The mean values, standard

deviation values and correlation coefficients of the variables in the research model are listed in Table 5.17 and Table 5.18.

Correlation analysis included in the research model with the variables perceived usefulness, perceived ease-of-use, perceived value, perceived risk and context was carried out one by one to detect the existing links between them. Perceived Usefulness, Perceived ease-of-use, perceived risk, and context have a significant relationship with satisfaction at the $p < 0.01$ level. Perceived Usefulness, Perceived ease-of-use, perceived risk, and perceived value have a significant relationship with the intention of use at the $p < 0.01$ level. Perceived Usefulness has a significant relationship with the online purchase intention at the $p < 0.01$ level. Satisfaction has a significant relationship with the intention to use at the $p < 0.01$ level. Satisfaction also has a significant relationship with the intention of buying online at the $p < 0.01$ level.

Table 5.17: Correlation Analysis

		Correlations							
		PUS	PVAL	PEOU	CTXT	PRIS	STF	ITU	OPI
Perceived Usefulness	Pearson Correlation	1							
Perceived Value	Pearson Correlation	,627**	1						
Perceived-Ease-Of-Use	Pearson Correlation	,630**	,604**	1					
Context	Pearson Correlation	,611**	,601**	,579**	1				
Perceived Risk	Pearson Correlation	,042	,084	-,002	,058	1			
Customer Satisfaction	Pearson Correlation	,608**	,541**	,574**	,545**	-,065	1		
Intention To Use	Pearson Correlation	,693**	,668**	,636**	,574**	-,055	,755**	1	
Online Purchase Intention	Pearson Correlation	,527**	,332**	,401**	,388**	-,008	,621**	,618**	1
** :p<0,01									

Level of significance, PUS: Perceived Usefulness, PVAL: Perceived Value, PEOU: Perceived Ease-of-Use, CTXT: Context, PRIS: Perceived Risk, STF: Satisfaction, ITU: Intention To Use, OPI: Online Purchase Intention

Table 5.18: Descriptives Statistics

Descriptives Statistics			
	Mean	Std. Deviation	N
Perceived Usefulness	3,9053	,63239	207
Perceived Value	3,9183	,62875	208
Perceived Ease-Of-Use	3,9436	,67354	207
Context	3,9968	,69028	209
Perceived Risk	3,1184	,91469	207
Customer Satisfaction	3,6114	,56984	200
Intention To Use	3,7855	,61573	202
Online Purchase Intention	3,5547	,65934	204

As a result of the hypothesis tests performed among the variables mentioned in the research model, hypotheses were supported by regression analysis. The relationships between the variables were statistically significant as a result of regression analysis.

As shown in the Table 5.19, the hypothesis (**H1**) that asserts that perceived usefulness is positively related to satisfaction is supported with ($\beta = ,291^{***}$; $p < 0,001$).

The hypothesis (**H2**) that asserts that perceived ease-of-use is positively related to satisfaction is supported with ($\beta = ,215^{**}$; $p < 0,01$).

The hypothesis (**H3**) that asserts that context is positively related to satisfaction is supported with ($\beta = ,170^*$; $p < 0,05$).

The hypothesis (**H4**) that asserts that perceived risk is positively related to satisfaction is supported with ($\beta = ,117^*$; $p < 0,05$).

The hypothesis (**H5**) that asserts that perceived value is positively related to satisfaction is not supported with ($\beta = ,135$; $p > 0,05$).

As shown in Table 5.20, the hypothesis (**H6**) that asserts that perceived usefulness is positively related to intention to use is supported with ($\beta = ,339^{***}$; $p < 0,001$).

The hypothesis (**H7**) that asserts that perceived ease-of-use is positively related to intention to use is supported with ($\beta = ,202^{**}$; $p < 0,01$).

The hypothesis (**H8**) that asserts that context is positively related to intention to use is not supported with ($\beta = ,054$; $p > 0,05$).

The hypothesis (**H9**) that asserts that perceived value is positively related to intention to use is supported with ($\beta = ,319^{***}$; $p < 0,001$).

The hypothesis (**H10**) that asserts that perceived risk is negatively related to intention to use is supported with ($\beta = -,124^{**}$; $p < 0,01$).

Regarding Table 5.21, The hypothesis (**H11**) that asserts that perceived usefulness is positively related to online purchase intention is supported with ($\beta = ,444^{***}$; $p < 0,001$).

The hypothesis (**H12**) that asserts that perceived ease-of-use is positively related to online purchase intention is not supported with ($\beta = ,095$; $p > 0,05$).

The hypothesis (**H13**) that asserts that context is positively related to online purchase intention is not supported with ($\beta = ,098$; $p > 0,05$).

The hypothesis (**H14**) that asserts that perceived value is positively related to online purchase intention is not supported with ($\beta = -,063$; $p > 0,05$).

The hypothesis (**H15**) that asserts that perceived risk is positively related to online purchase intention is not supported with ($\beta = -,030$; $p > 0,05$).

Regarding Table 5.22, the hypothesis (**H16**) that asserts that customer satisfaction is positively related to intention to use is supported with ($\beta = ,755^{***}$; $p < 0,001$).

Finally, regarding Table 5.23 the hypothesis (**H17**) that asserts that customer satisfaction is positively related to online purchase intention is supported with ($\beta = ,621^{***}$; $p < 0,001$).

Table 5.19: Regression between Independent Variables and Satisfaction.

Independent Variables	Dependent Variables	Standardized Coefficients (β)	Adjusted R ²	F
				Values
Perceived Usefulness	Satisfaction	,291 ^{***}	,458	33,962
Perceived Value	Satisfaction	,135		
Perceived ease-of-use	Satisfaction	,215 ^{**}		
Context	Satisfaction	,170 [*]		
Perceived Risk	Satisfaction	-,117 [*]		

*: $p < 0,05$

** : $p < 0,01$

***: $p < 0,001$

Table 5.20: Regression between Independent variables and Intention to Use

Independent Variables	Dependent Variables	Standardized Coefficients (β)	Adjusted R ²	F
				Values
Perceived Usefulness	Intention to use	,339***	,602	60,637
Perceived Value	Intention to use	,319***		
Perceived ease-of use	Intention to use	,202**		
Context	Intention to use	,054		
Perceived Risk	Intention to use	- ,124**		

** : p < 0.01

*** : p < 0.001

Table 5.21: Regression between Independent Variables and Online Purchase Intention

Independent Variables	Dependent Variables	Standardized Coefficients (β)	Adjusted R ²	F
				Values
Perceived Usefulness	Online Purchase intention	,444***	,270	15,705
Perceived Value	Online Purchase intention	- ,063		
Perceived ease-of-use	Online Purchase intention	,095		
Context	Online Purchase intention	,098		
Perceived Risk	Online Purchase intention	- ,030		

*** : p < 0.001

Table 5.22: Regression Analysis between Satisfaction and Intention to Use.

Independent Variables	Dependent Variables	Standardized Coefficients (β)	Adjusted R ²	F
				Values
Satisfaction	Intention to use	,755***	,568	257,140

*** : p < 0.001

Table 5.23: Regression between Satisfaction and Online Purchase Intention.

Independent Variables	Dependent Variables	Standardized Coefficients (β)	Adjusted R²	F
				Values
Satisfaction	Online purchase intention	,621***	,382	122,137

***:p<0.001



6. DISCUSSIONS AND CONCLUSIONS

The purpose of this study was to elucidate all the antecedents that cause customer satisfaction with the use of a mobile service such as the mobile commerce application and the online purchase intention. These antecedents are considered as important indicators for the development of these services to the clients of the company. In particular, this study using the Technology Acceptance Model has extended the scope of this model by adding other constructs. Taking into account the findings of this study, it appears that perceived ease-of-use, perceived risk, perceived usefulness and context affect customer satisfaction. From observation of antecedents, perceived usefulness clearly appears as the only factor that positively influences all the variables with which it is associated. Based on this, perceived usefulness is the single most influential antecedent of satisfaction in the research model.

This would mean the more the use of technology generate the likelihood of increased user performance, the more the customer will experience pleasure using the service because of his belief in technological advances. By offering mobile services to customers, businesses aim for proximity to their customers and they can accomplish multiple tasks with these applications. However, consumers do not consider the usefulness of this technological innovation as the main factor. For them, the main factor of this technology is the perceived ease of use. According to Davis' Technology Acceptance Model (1989), perceived usefulness results from the perceived ease-of-use. It is worthwhile to discuss the idea that if a technology is easily accessible, it generates its usefulness and this usefulness in turn influences behavioral intentions for the purpose of using mobile services. This idea finds its meaning in the expectations of customers because they are almost very demanding and search perfection in technological innovation.

The difficulty companies' face in attracting customers to new technological areas should encourage companies to insert other indicators to ensure the comfort level of their services. This study also reveals that the perceived value does not influence customer satisfaction. Economic factors may explain this conclusion. Some customers based on their income prefer the value for money. They search a good balance between the best quality of service and the lowest price of the service. The rapid growth of technology can still encourage consumers to use mobile services and live according to the technological trend even if it requires financial sacrifices. Even if customers

neglect this aspect, mobile services can be used on other support such as the computer and the internet. The customer can use his computer to make online purchases through the internet. In the same logic, it is very difficult to find the reasons that sometimes explain the high costs of mobile services. But the most valid reason seems to be the competition that is observed in the technological sector.

In place of mobile services, some companies have opted for identical services exclusively from the internet. This situation affects the satisfaction of mobile customers even though the mobile service is accessible everywhere and at any time. Thus, the price of these services successively determines customer satisfaction and the intention to use them. The study also reveals that customer satisfaction is positively associated with the intention to use the mobile commerce app. This is justified by the affirmation of Fishbein and Ajzen (1975) which states that the attitude positively affects intention.

In essence, this study simultaneously provides theoretical and managerial contributions. For the theoretical contributions, it allows a better knowledge concerning the mobile services associated with the Technology Acceptance Model. For managerial contributions, practitioners can use it to attract potential users of a mobile commerce application and maintain long-term relationships with their current users. To do this, marketing managers should make appropriate decisions.

For example, service providers often have to update and offer new services to customers. In such circumstances, customers are looking for innovation and from there they will find good reasons to use the services of the company. Also, service providers should offer mobile applications easily accessible with all mobile operating systems (Android, IOS, and Windows). Frequent updating of services with the creation of new functions to increase the emotional capacities of users. By also providing technical assistance remotely, the technical problems that customers face will be solved without them providing enough effort. Finally, the findings of this study indicate that marketers should focus on the usefulness of the mobile commerce application in all their marketing materials. In addition, it is desirable that they pay particular attention to the user-friendliness of the users of their services.

To address the limitations of this study, the sampling method used is the main limitation. The possibility of generalizing the results to the population arises because of the snowball method used which does not provide a representative sample. In the future, reproduction of this study by collecting data in a larger area will improve the

validity of the model studied. In addition, this study should be replicated with other previously validated concepts to explain the intention to use a mobile service as the perceived cost (Premkumar et al., 1994). By doing so, the model will be better able to fully explain the intention to use this service and the intention to purchase online. Value was not an important factor in this study.

According to Menon and O'Connor (2007) the idea of value and its optimization are important elements in explaining consumer choices for innovation. Nevertheless, future studies should continue to study the impact of value on such a research model by conducting investigations of the benefit received and the cost of obtaining that benefit. The peculiarity of this study is that it is carried out in a context of mobile service and more particularly on a mobile commerce application. Other studies should try to explore also the factors that affect users of non-mobile services to use mobile services.

In conclusion, this study provides a theoretical framework on the behavioral intentions of clients to use a mobile commerce application and make purchases on the internet based on the Acceptance Model of Technology in a Turkish context. Overall, the study found the usefulness of particular constructs that could justify the behavioral intentions discussed. Focusing on the consumer aspect is an advantage to better appreciate the current factors in the use of mobile services that have both theoretical and practical consequences.

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BIOGRAPHY

Mohamed Hassirou FOUCENI was born in 1987 in BENIN. He completed his high school studies in Porto-Novo, BENIN. He graduated from the Department of Management Sciences at Porto-Novo College of Business and Management in 2011. He then traveled to Turkey and learned Turkish as a second language in addition to his mother tongues French.



APPENDICES

Appendix A: Survey In English

Dear Participant

For research work related to the defense of my Master thesis entitled "The Customer Relationship Management Process: Its measurement and impact on performance", this survey is prepared for the purpose of collecting information for the use of mobile commerce applications

Do not write your name on the survey. Any individual information provided by the participants in this study will be strictly confidential and will not be passed on to any person or institution.

Please fill out all the questions form without leaving empty parts.

Thank you for using your precious time.

Prof. Dr. Oya ERDIL

Mohamed H. FOUCENI

Gender :	Male	<input type="checkbox"/>	Female	<input type="checkbox"/>				
Age :	18 – 27	<input type="checkbox"/>	28 – 37	<input type="checkbox"/>	38 – 47	<input type="checkbox"/>	Above 47	<input type="checkbox"/>
Occupation :	Salaried	<input type="checkbox"/>	Self-employed professionals	<input type="checkbox"/>				
	Self-employed	<input type="checkbox"/>	Retired	<input type="checkbox"/>	Students	<input type="checkbox"/>		
Income Group :	Less Than 10,000	<input type="checkbox"/>	10,001 – 20,000	<input type="checkbox"/>	20,001 – 30,000	<input type="checkbox"/>		
	More Than 30,000	<input type="checkbox"/>						
Frequency of commerce services usage :	Daily	<input type="checkbox"/>	Weekly	<input type="checkbox"/>	Monthly	<input type="checkbox"/>		
	Quartely	<input type="checkbox"/>						
Awareness about Mobile Commerce Services :	Aware	<input type="checkbox"/>	Not aware	<input type="checkbox"/>				
Usage of Mobile Commerce Application :	Use	<input type="checkbox"/>	Do not use	<input type="checkbox"/>				

	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
1. Using mobile commerce services makes it easier to do my task					
2. Using mobile commerce services improves my task performance					
3. Using mobile commerce services enables me to accomplish tasks more quickly					
4. Using mobile commerce services saves me time and effort in performing tasks					
5. Mobile commerce services is useful in performing my task					
6. Using mobile commerce services enhances my task effectiveness					
7. I feel learning to use mobile commerce application would be easy					
8. I feel it would be easy to use mobile commerce application					
9. It is convenient to access mobile commerce application					
10. Using mobile commerce application would be suitable for me to know about my account details					
11. I would like to use mobile commerce application if I am far from the store					
12. I would like to use mobile commerce application if I am hurry or need the account information					

13. I have compelling reason to use mobile commerce services					
14. I feel a need of using mobile commerce services					
15. I cannot do without mobile commerce services					
16. Mobile application would be reliable for commerce					
17. I feel very confident about mobile commerce application for banking tasks					
18. Compared to the effort I need to put in, I think the use of mobile commerce application would be beneficial to me.					
19. Compared to the time I need to spend, I think the use of mobile commerce application would be worthwhile to me					
20. I feel using mobile commerce application in monetary transactions is risky					
21. I feel using mobile commerce application put my privacy at risk					
22. I am very contented with the mobile commerce application					
23. I am very pleased with the mobile commerce application					
24. I am very delighted with the mobile commerce applications					
25. Mobile commerce application develops the right solution for your human resources problems					
26. It is easy to contact the store location by telephone					
27. Mobile commerce online invoicing process is good					
28. In general user is very satisfied with the services offered my mobile commerce applications					
29. Overall, the service of mobile commerce comes up for user expectations					
30. Assuming that I have access to the mobile services, I intend to use them					
31. I intend to increase my use of mobile services in future					
32. I feel good about using mobile commerce application					
33. Using mobile application is worthwhile					
34. I am willing to use mobile commerce application					
35. I predicted that, I would use mobile commerce application in the next few months					
36. I will likely repurchase products at those internet shopping malls I have visited					
37. I like shopping at internet shopping malls					
38. Online shopping malls are a fit means to buy products					
39. The probability that I would consider buying online from mobile commerce application is high					

40. My willingness to buy product online from mobile commerce application is high					
41. When my intention is to merely browse through the mobile commerce application, I sometimes make a purchase					

Appendix B: Turkish Survey

Sevgili katılımcı;

Bu anket "Müşteri İlişkileri Yönetimi Süreci: Ölçümü ve Performansı Üzerindeki Etkisi" başlıklı yüksek lisans tezimin savunulması ile ilgilidir. Anket mobil ticaret uygulamalarının kullanımı hakkında bilgi toplamak amacıyla hazırlanmıştır.

İsminizi ankete yazmayınız. Bu çalışmadaki katılımcılar tarafından sağlanan herhangi bir kişisel bilgi kesinlikle gizli tutulacak ve hiçbir kişiye veya kuruma ileilmeyecektir.

Lütfen tüm soru formlarını boş kısım bırakmadan doldurunuz.

Değerli zamanınızı kullandığınız için teşekkür ederiz.

Prof. Dr. Oya ERDİL

Mohamed H. FOUCENI

Cinsiyeti :	Erkek	<input type="checkbox"/>	Bayan	<input type="checkbox"/>
Yaş üzeri :	18 – 27	<input type="checkbox"/>	28 – 37	<input type="checkbox"/>
	38 – 47	<input type="checkbox"/>	47 den fazla	<input type="checkbox"/>
Meslek :	Maaşlı	<input type="checkbox"/>	Serbest meslek sahibi profesyoneller	<input type="checkbox"/>
	Serbest meslek sahibi	<input type="checkbox"/>	Emekli	<input type="checkbox"/>
			Öğrenci	<input type="checkbox"/>
Gelir grubu :	10,000 TL den az	<input type="checkbox"/>	10,001 – 20,000	<input type="checkbox"/>
			20,001 – 30,000	<input type="checkbox"/>

30,000 den fazla <input type="checkbox"/>	
Ticaret hizmetlerinin kullanım sıklığı : Günlük <input type="checkbox"/>	Haftalık <input type="checkbox"/>
Üç aylık <input type="checkbox"/>	Aylık <input type="checkbox"/>
Mobil ticaret hizmetleri hakkında farkındalık : Farkında <input type="checkbox"/>	Farkında değil <input type="checkbox"/>
Mobil ticaret uygulamasının kullanımı: Kullanıyorum <input type="checkbox"/>	Kullanmıyorum <input type="checkbox"/>

	Kesinlikle katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle katılıyorum
1. Mobil ticaret hizmetlerini kullanmak, görevimi yapmamı kolaylaştırıyor					
2. Mobil ticaret hizmetlerini kullanmak görev performansımı artırıyor					
3. Mobil ticaret hizmetlerini kullanmak, işleri daha hızlı gerçekleştirmemi sağlıyor					
4. Mobil ticaret hizmetlerini kullanmak, görevlerimi yerine getirmemde zaman ve emek tasarrufu sağlıyor					
5. Mobil ticaret hizmetleri görevimi yerine getirmede yararlıdır					
6. Mobil ticaret hizmetlerini kullanmak görev etkinliğimi artırıyor					
7. Mobil ticaret uygulamasını kullanmayı öğrenmenin kolay olacağını düşünüyorum					
8. Mobil ticaret uygulaması kullanımının kolay olacağını düşünüyorum					
9. Mobil ticaret uygulamasına erişmek uygundur					
10. Mobil ticaret uygulamasını kullanmak hesap ayrıntılarımı öğrenmem için uygun olacaktır					
11. Mağazadan uzaktaysam mobil ticaret uygulamasını kullanmak isterim					
12. Acelem veya hesap bilgilerime ihtiyacım var ise mobil ticaret uygulamasını kullanmak isterim					

13. Mobil ticaret hizmetlerini kullanmak için zorlayıcı nedenlerim var					
14. Mobil ticaret hizmetlerini kullanma gereği duyuyorum					
15. Mobil ticaret hizmetleri olmadan yapamam					
16. Mobil ticaret hizmetleri olmadan yapamam					
17. Bankacılık işlemleri için mobil ticaret uygulamasını kullanma konusunda güvenli hissediyorum.					
18. Yapmam gereken çabaya kıyasla, mobil ticaret uygulaması kullanımının benim için yararlı olacağını düşünüyorum.					
19. Harcayacağım zamana kıyasla, mobil ticaret uygulaması kullanımının benim için faydalı olacağını düşünüyorum					
20. Parasal alım-satım işlemlerinde mobil ticaret uygulaması kullanmanın riskli olduğunu hissediyorum					
21. Mobil ticaret uygulamasını kullanmanın gizliliğimi tehlikeye attığını hissediyorum.					
22. Mobil ticaret uygulamasından memnun sayılırım					
23. Mobil ticaret uygulamasından memnunum					
24. Mobil ticaret uygulamalarından çok memnunum					
25. Mobil ticaret uygulaması insan kaynakları problemleriniz için doğru çözümü geliştiriyor					
26. Mağazanın bulunduğu yere telefonla ulaşmak kolay					
27. Mobil ticaret çevrimiçi faturalandırma işlemi iyi					
28. Genel olarak kullanıcı, mobil ticaret uygulamamın sunduğu hizmetlerden oldukça memnun					
29. Genel olarak mobil ticaret hizmeti, kullanıcı beklentileri için ortaya çıkıyor					
30. Mobil hizmetlere erişimim olduğunu varsayarsak, onları kullanmayı düşünüyorumuz					
31. Gelecekte mobil hizmet kullanımımı arttırmayı düşünüyorum					

32. Mobil ticaret uygulamasını kullanma konusunda kendimi iyi hissediyorum					
33. Mobil ticaret uygulamasını kullanmak faydalı olacaktır					
34. Mobil ticaret uygulamasını kullanmaya istekliyim					
35. Önümüzdeki birkaç ay içinde mobil ticaret uygulamasını kullanacağımı düşünüyorum					
36. Ziyaret ettiğim internet alışveriş merkezlerinde ürünleri tekrar satın alacağım					
37. İnternet alışveriş merkezlerinde alışveriş yapmayı seviyorum					
38. Çevrimiçi alışveriş merkezleri ürünleri satın almak için uygun bir yöntemdir					
39. Mobil ticaret uygulamasından olası çevrimiçi alım yapma düşüncem yüksek					
40. Mobil ticaret uygulamasından çevrimiçi ürün satın alma isteğim yüksek					
41. Niyetim sadece mobil ticaret uygulamasına göz atmak olduğunda, bazen bir satın alma işlemi yapıyorum					