

**The impact of Electronic bills on customer satisfaction: a field study on Efawateercom users.**

**أثر الدفع الإلكتروني على رضا الزبائن في الأردن: دراسة ميدانية  
على مستخدمين اي فواتيركم**

**Prepared by**

**Abdallah (Mohd Rawhi) Shaker AL-Ashqar**

**Supervised by**

**Prof. Hebah H.O. Nasereddin**

**Thesis Submitted in Partial Fulfillment of the Requirements for Master  
Degree in E-Business.**

**Management Department**

**Business Faculty**

**Middle East University**

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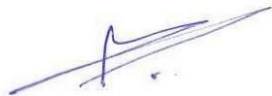
## Authorization

I am Abdallah (Mohd Rawhi) Shaker AL-Ashqar; authorize Middle East University to provide libraries, organizations and individuals with copies of my thesis on request.

Name: Abdallah (Mohd Rawhi) Shaker AL-Ashqar

Date: 14/08/2018.

Signature:

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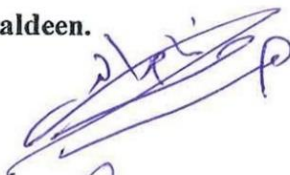
**The impact of Electronic bills on customer satisfaction; a field study on Efawateercom users.**

**It was approved in:**

**14/08/2018**

**Discussion committee:**

**Prof. Hebah.O.Nasseraldeen.**



**Dr. Sameer AL-Jabali.**



**Dr. Yazan Al-Shamaileh.**



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At Last but not least, extra special thanks goes to my lovely mother for her endless love and for being by my side in every step of this enriching journey and tolerating with me all the ups and downs of it.

**Sincerely Yours,**

**Abdallah AL-Ashqar**

## **Dedication**

To beloved parents and friends, without any return or interest starting with my lovely supportive mother, to my very dear father, my beloved family and friends. I would love to say "thank you all without you I wouldn't be here today"

All the best,

Abdallah AL-Ashqar.

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# **The impact of Electronic bills on customer satisfaction: a field study on Efawateercom Users.**

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## **Abstract**

This research aims to investigate the Impact of E-bills and its factors (Customer resistance to change, Access to technology and privacy concerns) on Customer Satisfaction. The population of the study consists of Efawateercom users and other online services in Jordan, as a sample of the study (600) questionnaires were distributed, total responses to the questionnaires were (444), the researcher eliminated (60) Questionnaires due to missing data, that guide to a result of (384) questionnaires being valid for further analysis.

In reference to the responses of the study questionnaire, the collected data was used through Statistical Package for Social Sciences (SPSS).

The analytical results of the study showed that the E-billing services have a significant impact on Customer satisfaction.

In addition, the factors of E-bills (Customer resistance to change, Access to technology, Privacy concerns) also have a significant impact on customer satisfaction.

The researcher recommends that future studies and researches could focus on other factors that could have an influence on the customer satisfaction such as marketing efforts and new strategies that helps the online billing services to reach and serve more and more of the people that still using the traditional way of paying bills.

Also, this study will guide the companies that offer the online services to improve their strategies and their business. Finally, the academic will benefit from results, conclusions and recommendations of this study in order to conduct more researches.

**Keywords: Electronic bills (E-bills), Customer satisfaction, privacy concerns.**

**Paper type: Master Thesis.**

**أثر الدفع الإلكتروني على رضا الزبائن في الاردن: دراسة ميدانية على مستخدمين  
اي فواتيركم.**

**عمل الطالب:**

**عبدالله "محمد روجي" الاشقر**

**شمارف**

**د. هبة حسن صان رلادين.**

**الملخص**

الهدف من هذا البحث هو رؤية أثر الدفع الإلكتروني وعوامله (عدم رغبة العميل في التغيير، قدرة الوصول واستخدام الى التكنولوجيا ومخاوف من الخصوصية في استخدام الخدمات الإلكترونية) على رضا العملاء

وهذه الدراسة ركزت على عملاء (اي -فواتيركم) وعملاء خدمات الكترونيه مختلفة في الاردن، وزعت للدراسة (٦٠٠) استبانة، وقد تم الإجابة عن (٤٤٤) منها، (٦٠) منها تم الاستغناء عنها لعدم اكتمال المعلومات فيها، والعدد المتبقي (٣٨٤) كانت كامله وتصلح لباقي الدراسة.

المعلومات التي جمعت من الاستبيانات استخدمت من خلال البرنامج الاحصائي (SPSS) النتائج التحليلية من الدراسة اظهرت ان الفواتير الإلكترونية لها تأثير على رضا العملاء. بالإضافة الى ان العوامل المؤثرة على الدفع الإلكتروني المذكورة سابقا وهي (عدم رغبة العميل في التغيير، قدرة الوصول واستخدام التكنولوجيا ومخاوف من الخصوصية في استخدام الخدمات الإلكترونية) ايضا لها تأثير على رضا العملاء.

يوصي الباحث في الابحاث المستقبلية ان يتم التركيز على عوامل اخرى ممكن ان تؤثر على رضا العملاء مثل جهود التسويق وايجاد استراتيجيات جديده تساعد خدمات الدفع الإلكترونية في الوصول الى اشخاص وعملاء أكثر وجذبهم للعمل عن طريق الانترنت للتعامل مع فواتيرهم بدل من الطرق التقليدية المتبعة من قبلهم لتسديد فواتيرهم.

بالإضافة الى ان هذه الدراسات ستكون دليل للشركات التي تقدم خدمة الدفع الإلكتروني لتحسين استراتيجياتها وعملها.

في النهاية، حتى القطاع الأكاديمي ايضا سيستفيد من النتائج والاستنتاجات والتوصيات لهذه الدراسة من اجل اجراء المزيد من الابحاث.

**الكلمات المفتاحية: الدفع الإلكتروني، رضا الزبائن، مخاوف الخصوصية.**

# **Chapter One**

## **General Framework**

### **1.1 Introduction**

### **1.2 Study Problem**

### **1.3 Study Objectives**

### **1.4 Study Significance**

### **1.5 Study Questions and Hypothesis**

### **1.6 Study Model**

### **1.7 Study Limitations**

### **1.8 Study Delimitations**

### **1.9 Study Operational Definitions**

## **Chapter One**

### **1.1 Introduction.**

Many companies make improvements to their products, but few make a success in their innovations, to sustain the innovation of the product and maintain the improvement of performance, This will be achieved by the new strategy, process, and patent, This will generate new market or change the shape of the existing markets, It creates a new market by targeting new customers or may take the low end of established markets to compete in.

The presence of new products create a new way of usage and create the needs for the innovation, new innovation for one product leads to innovate and create new products related to the main product, and this will lead to create new category of markets with new customers.

E-bills (Electronic bills) services that are taking bills to a new level as its moving it from the traditional way which the customers used to pay their bills and payments by cash in the specified place to pay it, it takes more costs, time and energy. The electronic bills made it easier to use, new applications and websites were launched lately to make it easier and reachable for more customers to use it anytime and anywhere.

Non countable services are now available online to be used by different ages and both genders, such as electricity, water, gas and other bills, even

schools and universities payments could be paid by the new applications and websites that offer the Electronic payments services.

On the other hand, Customer Satisfaction is one of the high affecting factors on any product or service, which is important because it provides marketers and business owners with a guide to manage and improve their businesses (Beard, 2014).

Finally, researcher realized the importance of E-bills on the success of organizations, and on achieving Customer Satisfaction, but a lot of organizations did not apply the electronic way in collecting payments, while others are getting advantages of using it.

This study focused on the impact of E-bills factors: customer resistance to change, access to technology and privacy concerns on Customer Satisfaction, E-bills is taking a huge role in the success of organizations and in increasing the level of satisfaction for the customers.

## **1.2 Study Problem.**

Li, Wen (2014) recommended that there is a lack of efficient payment services offline in the 21 century, nowadays with the increasing power of the internet, communication and technologies, electronic payments are taking a part of it to make it easier to the world in their payments problems and to increase their satisfaction. Therefore to increase the satisfaction of the customers, governments, companies, customers must be aware about the

ease of use and the benefits they will gain from electronic payment services, unfortunately recent studies paid a little attention to the role of the electronic payments in increasing the Customer Satisfaction.

The main problem of this study is:

**“Do E-bills have an impact on the Customer Satisfaction? And to what extend does the E-bills affect the Customer Satisfaction?”**

Referring to the previous discussion and the increased implementation of E-bills in the Jordanian organizations, an explanation of the key factors that have an impact on E-bills implementation should be done. In addition, this study sought to address the benefits of E-bills and the relation with the Customer Satisfaction in Efawateercom service. The researcher recommended ways that the organizations offer E-billing services can improve their services to increase the Customer's Satisfaction.

### **1.3 Study Objectives.**

This study investigated the impact of E-bills factors on Customer Satisfaction, these objectives are:

- Investigate the impact of E-bills on Customer Satisfaction.
- Investigate the impact of customer resistance to change factor on the Customer Satisfaction.
- Investigate the impact of access to technology factor on the Customer Satisfaction.

- Investigate the impact of privacy concerns factor on the Customer Satisfaction.

#### **1.4 Study Significance**

The significance of this study is to demonstrate the impact of E-bills on Customer Satisfaction for Efawateercom service users. E-bills service will measure and evaluate in terms of its factors which are (Customer resistance to change, access to technology and privacy concerns) and determine the impact on Customer Satisfaction interdependent factors, that will help and aid the business to be more conscious and aware of applying E-bills services in the future, also it will help to understand what is E-bills and how it is important for organizations and customers.

The results from this study will reveal useful information and provide good knowledge for Jordanian organizations that are interested in implementing the Electronic payment services.

#### **1.5 Study Questions and Hypothesis**

##### **Study Questions:**

This study tries to answer the below questions:

- Is there any impact of E-bills on Customer Satisfaction?
- Is there any impact of Customer resistance to change on Customer Satisfaction?

- Is there any impact of access to technology on Customer Satisfaction?
- Is there any impact of privacy concerns on Customer Satisfaction?

### **Study Hypothesis:**

This study tested four main hypotheses according to the above questions and objectives, which show as following:

**H<sub>0</sub>1:** There is no impact of E-bills on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).

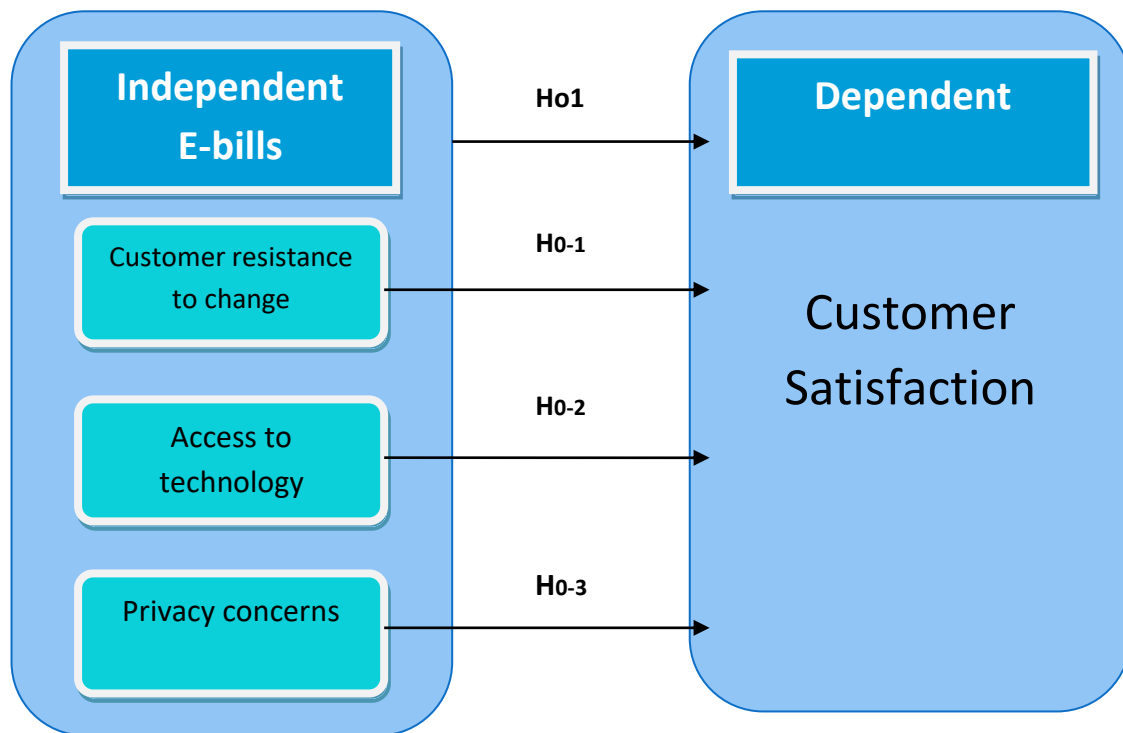
**H<sub>0</sub>-1:** There is no impact of Customer resistance to change on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).

**H<sub>0</sub>-2:** There is no impact of access to technology on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).

**H<sub>0</sub>-3:** There is no impact of privacy concerns on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).

## 1.6 Study Model

**Figure 1-1 showing the impact of E-bills on Customer Satisfaction.**



**Figure (1-1): Study model.**

**Source:** prepared by the researcher based on:

- Independent variable:
- A. McNeish, (2010) under the title, “Consumers resistance to discontinuing a familiar technology, the paper bill”
- B. Nasereddin and Khazneh, (2016) under the title “An empirical study of factors affecting the acceptance of mobile payments in Jordan”
- Dependent variable:
- A. Beard, (2014) under the title “why customer satisfaction is important”

B. Alsharif Ahmad, (2017) under the title “The Impact of Social Media Marketing on Customer Satisfaction through Brand Image”

### 1.7 Study Limitations

There are number of limitations for this study:

- **Human limitation:** this study focused on customer/users that use Efawateercom in Jordan.
- **Place limitation:** this study conducted in Amman- Jordan.
- **Time limitation:** the academic year 2017-2018.
- **Scientific limitation:** this study focused on determining the impact of E-bills factors on Customer Satisfaction and adapted the prior’s studies recommendations.

### 1.8 Study Delimitations

- This study carried out on commercial banks customers in Amman. Therefore, generalizing the results on other types of electronic payments and other areas in Jordan might be questionable
- The amount of collected data depended on customer’s response to the questionnaire.

## 1.9 Study Operational Definitions

- **Electronic payments:** is a way of making transactions or paying for goods and services through an electronic medium without the use of check or cash. (Konior, 2016).
- **Electronic bills (E-bills):** Electronic bills are a part of the E-payments which it's a subgroup of the Electronic commerce, to move the purchasing and paying process to be online through internet for products and services.
- **Customer resistance to change:** customer's resistance to change from the traditional way of paying bills to the electronic way.
- **Access to technology:** the ability to get access to technologies and to use it.
- **Privacy concerns:** threats of using personal information and financial details online.
- **Customer satisfaction:** is a marketing term that measures how products or services supplied by a company meet or surpass a customer's expectation. (Beard, 2014).

## **Chapter Two**

### **Theoretical Framework and Previous Studies**

#### **2.1 Theoretical Framework.**

##### **2.1.1 Electronic bills (E-bills)**

##### **2.1.2 E-bills factors.**

##### **2.1.3 Customer satisfaction.**

#### **2.2 Previous Studies.**

##### **2.2.1 Distinctive Features of the Current Study.**

## **Chapter Two**

In this chapter reviews the related literature and previous relevant studies that are related to E-bills and customer satisfaction.

### **2.1 Theoretical Framework**

In this part the researcher showed the studies that clarified the theoretical frame work for the independent and the dependent variables of the study model.

#### **2.1.1 Electronic bills (E-bills)**

Electronic bills are a part of the E-payments which it's a subgroup of the Electronic commerce, to move the purchasing and paying process to be online through internet for products and services, many types of E-payments are produced nowadays, E-payments become progressively popular because of the use of the online banking and shopping services.

In 1999, the United States payments were becoming more electronic (Weiner, 1999). At that time checks were the most popular and preferable way of non-cash payments. In 2016 Koulayev said that checks are still the choice of the non-cash payments, followed by credit cards (Koulayev et al, 2016).

In the online payments Chen applied a technology acceptance model (TAM) and innovation diffusion theory (IDT) TO monitor and explain the customer acceptance of mobile payments which it's a part of the E-payments (Chen, 2008). This model could be used to increase the Customer Satisfaction by specifying the customer needs and ease of use of the E-payments and make it more effective.

After that many more models and theories were used to explore the consumer adoption and usage of the E-payments.

In Jordan, Efawateercom is one of the most important examples of the E-payments systems and services, it's an electronic system of presenting and paying bills owned by the Central Bank of Jordan and operated by Madfootcom for Electronic Payments. (Jafar, 2017). With this system everyone will be able to pay through channels like Mobile, Efawateercom website and online banking services, and some point of sales (POS) in famous trusted markets like Carrefour, Safeway and other stores.

In 2014 Efawateercom was the perfect choice for all people between other E-payments services, the usage of this system was measured over 250,000 transactions and performed in 156 million Jordanian dinars (JD).

In 2017 the number of users who uses Efawateercom was increased over 33347 users with millions of transactions.

Few studies in Jordan about the factors that have an impact on the E-payments systems, the first one was in 2013 by AL-Maaitah (Al-Maaitah, 2013). It was about risk factors associated with E-payments in Jordan, it was before launching the E-payments services in Jordan that started in 2014.

In 1999 Radecki and Wenninger said that there are several factors that have an impact on the E-payments such as unequal access to technology and the privacy concerns.

In 2009 the European journal of marketing published an article that was about E-consumer behavior and said that some of the factors that have an impact on the E-payments are customer service, trust issue, learning and privacy.

In 2016 Nasereddin and Khazneh said that ease of use, security and privacy are some of the several factors that have an impact on mobile payments which it's a part of the E-payment services (Nasereddin, Khazneh 2016).

### **2.1.2 Customer satisfaction.**

In 1995 Dutka said that satisfied customers were a way to increase the revenues and reduce the costs, the companies were interested in increasing the customer satisfaction and how to keep their customers satisfied.

In 1990s the growth of competition and the stagnation of the global markets, businesses were forced to concern about customer satisfaction surveys, surveys were used to get the feedback from the customers after that some programs were produced to understand the customer satisfaction in better ways, it became a serious objective for companies (Myers, 1999).

One of sources of information about critical performance attributes, is Company knowledge, customer satisfaction must be further than the company and to the customer (Johnson and Gustafsson, 2000).

One of the other factors that have an impact on customer satisfaction is the technology and network performance, Companies must find out performance drivers of satisfaction and prioritize them and focuses resources to impact the customer satisfaction in a positive way (Eljaam , 2005).

In 2011 Muhsan said that it's important to focus on the customer satisfaction to achieve the companies objectives and strategies, companies are setting their strategies to focus on customer retention and how to

increase their satisfaction, also focusing on the existing customers are more profitable than searching for new customers (Mohsan et al., 2011).

Customer retention and customer satisfaction are related to marketing (Khan, 2013). The marketing processes lead the companies to know which products and services will attract the customers to be produced (Assaad and Gómez, 2011). According to the marketing processes and channels recently social media is the most effective way for marketing (Clark and Melancon, 2013).

In 2013 Ramsaran-Fowdar and Fowdar said that social media marketing is an effective tool to manage the relationships with the existing customers and to create more relationships with existing and new customers so it's useful to increase the Customer Satisfaction and improve customer retention that is important in improving the organization performance (Kheng et al, 2010).

According to (Mohsan et al., 2011), Customer satisfaction can be defined as the client's attitude or behavior towards a firm, or an emotional reaction to the differences between what clients expect and what they get, regarding the fulfillment of desire, need or goal by the firm.

Customer satisfaction can be increased to high levels which it leads the customer to be loyal to a specific organization and it is called customer loyalty. Customer loyalty is about "increasing the percentage of repeat purchases among current customers" (Pitta, et.al, 2006).

Customer satisfaction comes when clients can feel the benefits and the value that they are paying for, and the spending costs of doing businesses, for example, time, effort and money spent at a firm (Ganiyuet.al, 2012).

There are two approaches of satisfaction can be separated for accumulative satisfaction and post-consuming satisfaction (Oliver, 1997) or as a transaction-specific satisfaction (Olsen & Johnson, 2003). After 1990s, satisfaction defined as the customer's fulfillment response. It is a judgment that the product or service itself, providing a high level of consumption-related to fulfillment, including levels of over and under fulfillment (Oliver, 1997).

Customer satisfaction is showed as affecting the buyer behavior and concerns, which leads companies to revenues. According to Bowen and Shoemaker (2003) customers might not said a positive word-of- mouth to others. This is a reason that the company does not deliver what consumers need (Roig, Garcia, Tena & Monzonis, 2006). Furthermore Woodruff (1997) identified that customer satisfaction measurement without fulfillment of consumer perceived value could not really reach the customer's expectations. Therefore, other variables should exist to explain the relationship between satisfaction and customer loyalty.

Customer loyalty is about "increasing the percentage of repeat purchases among current customers" (Pitta, et.al, 2006), that could describe the

relation between customer satisfaction, customer loyalty and the companies gained profits.

## **2.2 Previous Studies.**

The following previous studies have been chosen, because they focus on the most factors that this research needs to analysis in order to link and explain the impact of E-bills and its factors (Customer resistance to change, Access to technology, Privacy concerns) on customer satisfaction.

1. Al-Debei & Shannak (2005), the study was about all Jordanian companies which have a registered website, it was 712 companies and the sample were randomly picked for 118 companies, 118 questionnaires were distributed on the companies only 95 of them were returned. The research showed that Jordan in general has specialized e-commerce requirements, but still doesn't have the suitable culture for achieving E-commerce willingness stage.

2. Rigopoulos & Askounis (2007), this study was about the technology acceptance model to determine the users of electronic payments attitudes, the author reported that the technology acceptance model has the ability to explain the customers behavior in financial domains of electronic payments.

3. Chen (2008), this study was about a research model which examines the factors that have an impact on the consumer acceptance of mobile payments using the Structural Equation Modeling technique, the data was used for this study is from the surveys which it were (299) that was completed by the consumers and was used to validate the model.

4. Liu et al.,( 2008) The purpose of this study is to define the factors that have an impact on Chinese customer's online shopping satisfaction, the authors established a model of the satisfaction process in the e-commerce environment, identifying key factors and which dimensions of online shopping that have a significant impact on of online customer's satisfaction.

5. A. McNeish, (2010), This study was about the consumers that resist to change their way of paying their bills or to change the traditional way that depends on papers, also it was about factors that have an impact on the customers towards the electronic payments.

6. Beard, (2014), This study was about customer satisfaction and how important is it for the organizations to achieve their objectives and the relationship between marketing and customer satisfaction.

7. Yuen *et al* (2015), The study was about the internet banking users and how they accept this technology to use considering the different cultures and how they respond to it according to their culture.

8. Nasereddin and Khazneh, (2016), This study was about the mobile payments acceptance in Jordan, there were some factors that affect the acceptance of mobile payments in Jordan such as security, privacy, cost and ease of use and how they affect consumers.

9. Al-Majali & Bashabsheh (2016), This study focused on the factors that affect the customers towards the electronic payment services in Jordan, the result of this research was that 4 hypothesis were proved that have a relation with the security, awareness, simplicity and self efficacy.

10. Alsharif Ahmad, (2017), this study was about the relationship between social media marketing and customer satisfaction, also the author found that the companies must have a clear and well understood of the social media marketing to have a positive impact on customer satisfaction.

### **2.2.1 Distinctive Features of the Current Study.**

So many scholars have studied Electronic payments, Electronic bills, and Customer satisfaction, but they have paid little attention to the factors (customer resistance to change, access to technology and privacy concerns) and its impact on Customer satisfaction.

Therefore, this study might be the first of its kind that sheds light on the impact of E-bills factors on Customer satisfaction.

## **Chapter Three**

### **Study Methodology (Method and Procedures)**

In this chapter the methodology of the study was described by the researcher, and then presented the study population and sample, then the study data collection tools, reliability and validity were defined, and then the study variables and statistical tools were explained.

#### **3.1 Study Methodology**

This study followed the descriptive and analytical approach. Descriptive approach depended on literature review to build the conceptual frame work and exploring the relationships between the study variables. Literature review was extended to develop the questionnaire items. Analytical approach was used to assure reliability and validation for the measurement scale, testing the hypotheses and interpreting the results regarding the data gathered, data was collected from the customers that use Efawateercom in Jordan.

### **3.2 Study Population**

According to Madfooaatcom, the company that was the responsible of developing the application of Efawateercom, the users were estimated to an average of (33347) user in Jordan dated in 21/12/2017.

### **3.3 Study Sample**

Based on Sekran and Bougie, (2013), the population ranged (33347) the study sample would be (380). Due this equation, our study sample exceeded (380).

### **3.4 Study Data Collection Tools**

Due to the nature of the study, selected sample was subjected to survey using developed questionnaire in order to guarantee reliability and validity. The questionnaire was established based on literature related to E-bills and customer satisfaction, exploratory factor analysis was used to explore the items of the questionnaire, because the items of the dimension (factors) are unobvious and need to be explored.

The questionnaires were distributed online in order to reach the study sample and to save time.

- **Primary Source:** a questionnaire was prepared to define the impact of E-bills factors on Customer Satisfaction.
- **Secondary Source:** Thesis, Journals, Books, Articles, and Worldwide Web to write theoretical framework of this study, in addition, interviews were arranged in an E-bills related company.

And secondary sources were adopted. The data collected for the model was through questionnaires. After conducting a thorough review of the literature pertaining to study variables, the researcher formulated the questionnaire instrument for this study.

The questionnaire instrumental sections can be defined as:

- **Section One:** Demographic variables. The demographic information was collected with closed-ended questions, through (4) factors (Gender, age, ways of using online billing services and services are being used in Efawateercom).
- **Section Two:** Independent variable: E-bills factors and customer satisfaction.

As shown in table (3-1), Questions were distributed in the questionnaire as (20) questions for the independent variables and (13) questions for the dependent variable.

Table (3-1) Distribution of questionnaire statements used to measure variables and dimensions

Variable	Dimension	Type	Items
E-bills		Independent	5-10
Customer resistance to change		Independent	11-14
Access to technology		Independent	15-19
Privacy concerns		Independent	20-24
<b>Total Number of Items</b>		<b>Independent</b>	<b>20</b>
Customer satisfaction		Dependent	25-37
<b>Total Number of Items</b>		<b>Dependent</b>	<b>13</b>
<b>The Total Number of study tool statements</b>			<b>33</b>

E-bills measured on Likert-type range from 1 (Strongly Disagree) to 5 (Strongly Agree) as shown below in Figure (3-1):

- The scale is as follow in figure (3-1):

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
5	4	3	2	1

Figure (3-1)

### 3.5 Study Reliability

This study used Cronbach's Alpha ( $\alpha$ ), composed reliability and average variance extracted to measure the reliability, ( $\alpha > 0.7$ ).

### 3.6 Study Validity

To validate the data collection from the questionnaire before distribute it, the researcher presented it to many professors in public and private universities in Jordan, who have experience in the field of this study.

Other validation dimensions were assured in the questionnaire:

- 1- Convergent validity: in order to check if the data is measuring the study variables, not other variables.
- 2- Construct validity: defines how well the questionnaire measures up to its claims. It refers to whether the operational definition of a variable actually reflects the true.
- 3- Discriminate validity: that will check if the underlying variables are different, and to measure one variable without measuring any other variables in the same paragraph.

### 3.7 Study Variables

- **Independent Variable:** E-bills and its factors (customer resistance to change, access to technology, privacy concerns).
- **Dependent Variable:** Customer Satisfaction.

### **3.8 Statistical Treatment**

The data was collected from the responses of the questionnaire that used through statistical package for social sciences “SPSS” For analysis and conclusion. The researcher used fitting statistical methods that consist of:

- Cronbach's Alpha ( $\alpha$ ) to measure strength of the correlation and coherence between questionnaire items.
- Percentage and Frequencies.
- Standard deviation to measure the responses spacing degree about Arithmetic Mean.
- Arithmetic Mean to identify the level of response of study sample workforces to the study variables.
- Simple Regression analysis to measure the impact of study variables on testing the direct effects.
- Multiple Regression analysis to measure the effect of independent variables on dependent variable.

### **3.9 Validity and Reliability Testing.**

According to Sekran and Bougie, (2013), validity is concerned with measuring the right concept, while reliability is concerned with stability and consistency of measurement.

### 3.9.1 Validity Testing.

Validity contains two concepts which can be defined as internal validity and external validity. The process of proving the cause and the effect relationships are internal validity, on the other hand the generalizability of the study is external validity (Sekran and Bougie, 2013).

The researcher insured the validity by measuring the correlation between the questions and the levels.

Table (3-2) shows the correlation between the questions and the E-bills level.

Level questions	Coefficient of correlation	level of significance
1	0.824	0.00**
2	0.90	0.00**
3	0.812	0.00**
4	0.844	0.00**
5	0.663	0.00**
6	0.817	0.00**

**\*\* Means: statistical differences at (0.05 =  $\alpha$ )**

The table above shows that all the Coefficient of correlation is high and statistically significant ( $\alpha < 0.05$ ) and that proves the construct validity to the E-bills level questions.

Table (3-3) shows the correlation between the questions and the customer resistance to change level.

Level questions	Coefficient of correlation	level of significance
<b>1</b>	<b>0.819</b>	<b>0.00**</b>
<b>2</b>	<b>0.848</b>	<b>0.00**</b>
<b>3</b>	<b>0.673</b>	<b>0.00**</b>
<b>4</b>	<b>0.524</b>	<b>0.003**</b>

**\*\* Means: statistical differences at ( $0.05 = \alpha$ )**

The table above shows that all the Coefficient of correlation is high and statistically significant at ( $\alpha < 0.05$ ) and that proves the construct validity to the customer resistance to change level questions.

Table (3-4) shows the correlation between the questions and the access to technology level.

Level questions	Coefficient of correlation	level of significance
1	0.873	0.00**
2	0.788	0.00**
3	0.826	0.00**
4	0.827	0.00**
5	0.818	0.00**

**\*\* Means: statistical differences at ( $0.05 = \alpha$ )**

The table above shows that all the Coefficient of correlation is high and statistically significant at ( $\alpha < 0.05$ ) and that proves the construct validity to the access to technology level questions.

Table (3-5) shows the correlation between the questions and the privacy concerns level.

Level questions	Coefficient of correlation	level of significance
1	0.691	0.00**
2	0.890	0.00**
3	0.919	0.00**
4	0.706	0.00**
5	0.575	0.001**

**\*\* Means: statistical differences at ( $0.05 = \alpha$ )**

The table above shows that all the Coefficient of correlation is high and statistically significant at ( $\alpha < 0.05$ ) and that proves the construct validity to the privacy concerns level questions.

Table (3-6) shows the correlation between the questions and the customer satisfaction level.

Level questions	Coefficient of correlation	level of significance
1	0.815	0.00**
2	0.681	0.00**
3	0.611	0.00**
4	0.854	0.00**
5	0.706	0.00**
6	0.753	0.00**
7	0.769	0.00**
8	0.777	0.00**
9	0.482	0.007**
10	0.729	0.00**
11	0.582	0.001**
12	0.831	0.00**
13	0.678	0.00**

**\*\* Means: statistical differences at ( $0.05 = \alpha$ )**

The table above shows that all the Coefficient of correlation is high and statistically significant at ( $\alpha < 0.05$ ) and that proves the construct validity to the customer satisfaction level questions.

Table (3-7) shows the Correlation coefficient between the Independent and dependent variables.

	E-bills	Customer resistance to change	Access to technology	Privacy concerns	Customer satisfaction	independent
E-bills	1	0.683	0.652	0.712	0.807	0.813
Customer resistance to change	-	1	0.515	0.828	0.832	0.913
Access to technology	-	-	1	0.364	0.626	0.754
Privacy concerns	-	-	-	1	0.806	0.864
Customer satisfaction	-	-	-	-	1	0.893
independent	-	-	-	-	-	1

The table above shows that there is a strong Correlation coefficients and statistically significant at ( $\alpha < 0.05$ ) and that proves the validity of the study tools.

### 3.9.2 Reliability Testing.

It can describe as the accuracy in measurement which includes stability and consistency. The researcher used Cronbach's Alpha to measure the internal consistency of the study instrument (Questionnaire) as well as the stability.

Table (3-8) Study levels & Cronbach's Alpha

Level	Cronbach's Alpha
E-bills	0.894
Customer resistance to change	0.75
Access to technology	0.881
Privacy concerns	0.819
Customer satisfaction	0.918
All	0.96

The table above shows that there is a strong Stability coefficients and that proves the accuracy of the study tool and its suitability to get accurate results.

## Chapter Four

### Results of Analysis and Hypotheses Testing

#### 4.1 Introduction:

As shown in the previous chapter the purpose of the research and the research framework describes the results of the statistical analysis for the data collected according to the research questions and research hypotheses. The data analysis includes a description of the means and standard deviations for the study questions.

#### 4.2 Demographic variables of the study sample:

Tables (4-1), (4-2), (4-3) and (4-4) show the demographic variables of the study sample.

Table (4-1) shows that (67.5%) of the sample is male and (32.5%) is female.

**Table (4-1) Descriptive the Gender of the sample study**

Variables	Categorization	Frequency	Percent
Gender	Male	260	67.5
	Female	124	32.5
Total		384	100

Table (4-2) shows that the (44.4%) of the sample is under 31 years old, (26 %) is between (31-40), (13.5%) is between (41-50), and (16.1%) is more than 50 years old.

**Table (4-2) Descriptive the age of the sample study**

<b>Age</b>	<b>Less than 31</b>	<b>171</b>	<b>44.4</b>
	<b>31 - 40</b>	<b>100</b>	<b>26</b>
	<b>41 - 50</b>	<b>52</b>	<b>13.5</b>
	<b>More than 50</b>	<b>61</b>	<b>16.1</b>
<b>Total</b>		<b>384</b>	<b>100</b>

Table (4-3) shows that the users of Efawateercom portal are (41.5%) of the sample, (39.5 %) is using the bank website, most of the respondents are using mobile apps with a percentage of (47.8%), and respondents who uses other options such as (post office and pay by cash) with a percentage of (7.8%) of the respondents.

**Table (4-3) Ways of using online billing services.**

<b>Ways of using online billing services.</b>	<b>Efawateercom portal</b>	<b>160</b>	<b>41.5</b>
	<b>Bank website</b>	<b>152</b>	<b>39.5</b>
	<b>Mobile apps</b>	<b>183</b>	<b>47.8</b>
	<b>Others</b>	<b>30</b>	<b>7.8</b>
<b>Total</b>		<b>525</b>	<b>-</b>

Table (4-3) shows that the users of Efawateercom portal are (41.5%) of the sample, (39.5 %) is using the bank website, most of the respondents are using mobile apps with a percentage of (47.8%), and respondents who uses other options such as (post office and pay by cash) with a percentage of (7.8%) of the respondents.

**Table (4-4) Services are being used in Efawateercom.**

<b>Services</b>	<b>Mobile prepaid cards</b>	<b>144</b>	<b>37.4</b>
	<b>Paying bills</b>	<b>210</b>	<b>54.5</b>
	<b>Money transfer</b>	<b>78</b>	<b>20.2</b>
	<b>Banks payments</b>	<b>96</b>	<b>24.9</b>
	<b>Governmental services</b>	<b>129</b>	<b>33.5</b>
<b>Total</b>		<b>657</b>	<b>-</b>

Table (4-4) shows that the (37.4%) of the sample is using Efawateercom for mobile prepaid cards, and the highest percentage of users are using Efawateercom for paying bills with (54.5 %) of the respondents, (20.2%) of the respondents are using Efawateercom for money transfer as the lowest percentage of the respondents, (24.9%) is using Efawateercom for banks payments, and (33.5%) is using Efawateercom for governmental services.

### 4.3 Descriptive analysis of study variables

The arithmetic mean and standard deviation were used for the analysis of the study variables, study question's evaluation has been classified into five classes; Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree according to the table (4-5) below:

Class	Length
Strongly Disagree	1 – 1.8
Disagree	1.81 – 2.6
Neutral	2.61 – 3.4
Agree	3.41 – 4.2
Strongly Agree	4.21 – 5

Table (4-6) shows the arithmetic mean, standard deviation and the rank for the E-bills level questions.

Question	Evaluation	Rank	Mean	ST.D
Paying bills online saves time.	Strongly agree	1	4.3437	0.81536
Paying bills online saves efforts.	Strongly agree	2	4.2526	0.85273
I prefer paying bills online rather than the traditional way.	Agree	3	4.0938	1.1249
Paying bills online is a good way to keep records.	Agree	4	4.0885	0.86864
Paying bills online reduces costs.	Agree	5	4.0469	0.94102
I pay bills online usually.	Agree	6	3.9115	1.04343
	Agree	-	4.1228	0.69115

Table (4-6) clarifies the responses of E-bills dimension (Independent Variable) in order to clarify importance level of each item, means ranged between (3.9115) to (4.3437), the evaluation of E-bills was that the lowest mean was (3.9115) for **“I pay bills online usually.”** with standard deviation (1.04343), the highest mean was (4.3437) for **“Paying bills online saves time”**, with standard deviation (0.81536), In general, it appears that evaluation of E-bills is Agree with mean (4.1228) according to

the respondents' viewpoints, The variance of distribution range is (0.4322), the domain standard deviation is (0.25) which considered good, and indicates that variance is low and the responses are close to each others.

Table (4-7) shows the Arithmetic mean, standard deviation and the rank for the Customer resistance to change level questions.

Question	Evaluation	Rank	Mean	ST.D
I prefer to move to the online way of paying bills	Agree	1	4.1589	0.84784
i prefer to stop receiving bills papers and statements.	Agree	2	3.7760	1.03053
I will resist continuing receiving paper bills and statements.	Agree	3	3.5469	0.95753
I would pay a fee rather than keep on the traditional way of paying bills	Agree	4	3.5234	0.98260
	Agree	-	3.7513	0.70085

Table (4-7) clarifies the responses of Customer resistance to change dimension (Independent Variable) in order to clarify importance level of each item, means ranged between (3.5234) to (4.1589), the evaluation of Customer resistance to change clarifies that the lowest mean was (3.5234) for **“I would pay a fee rather than keep on the traditional way of paying**

**bills.”**, with standard deviation (0.98260), but the highest mean was (4.1589) for **“I prefer to move to the online way of paying bills”**, with standard deviation (0.84784), In general, it appears that evaluation of Customer resistance to change is Agree with mean (3.7513) according to the respondents' viewpoints, The variance of distribution range is (0.6355), the domain standard deviation is (0.134) which considered good, and indicates that variance is low and the responses are close to each others.

Table (4-8) shows the Arithmetic mean, standard deviation and the rank for the Access to technology level questions.

Question.	Evaluation	Rank	Mean	ST.D
I can easily access to the internet.	Agree	1	4.1901	0.81616
I can easily operate with computers.	Agree	2	4.1328	0.80829
I can easily interact with websites.	Agree	3	4.1016	0.82873
I can easily finish the billing transactions.	Agree	4	4.0443	0.83689
I find it reliable to use different kinds of technology.	Agree	5	4.0443	0.79201
	Agree	-	4.1026	0.65802

Table (4-8) clarifies the responses of Access to technology dimension (Independent Variable) in order to clarify importance level of each item, means ranged between (4.0443) to (4.1901), the evaluation of access to technology clarifies that the lowest mean was (4.0443) for **“I find it reliable to use different kinds of technology”**, with standard deviation (0.79201) but the highest mean was (4.1901) for **“I can easily access to the internet”**, with standard deviation (0.81616) In general, it appears that evaluation of access to technology is Agree with mean (4.1026) according to the respondents' viewpoints, The variance of distribution range is (0.1458), the domain standard deviation is (0.02415) which considered good, and indicates that variance is low and the responses are close to each others.

Table (4-9) shows the Arithmetic mean, standard deviation and the rank for the privacy concerns level questions.

Question	Evaluation	Rank	Mean	ST.D
I trust the online billing services:	Agree	1	3.8672	0.88831
I feel confident about doing business with a company can be reached online only.	Agree	2	3.5443	0.96850
The online transactions don't have to be confirmed with	Agree	3	3.5312	0.96631

something in writing.				
i am not afraid to insert my card details online.	Neutral	4	3.4010	0.99377
i am not worry about sending my information over the internet.	Neutral	5	3.3307	0.99378
	Agree	-	3.5349	0.73213

Table (4-9) clarifies the responses of Privacy concerns dimension (Independent Variable) in order to clarify importance level of each item, means ranged between (3.3307) to (3.8672), the evaluation of Privacy concerns clarifies that the lowest mean was (3.3307) for **“i am not worry about sending my information over the internet”**, with standard deviation (0.99378), but the highest mean was (3.8672) for **“I trust the online billing services”**, with standard deviation (0.88831) In general, it appears that evaluation of privacy concerns is Agree with mean (3.5349) according to the respondents' viewpoints. The variance of distribution range is (0.5365), the domain standard deviation is (0.10547) which considered good, and indicates that variance is low and the responses are close to each others.

Table (4-10) shows the arithmetic mean, standard deviation and the rank for the Customer satisfaction level questions.

Question	Evaluation	Rank	Mean	ST.D
I find it attractive to use the online services.	Agree	1	4	0.80469
I feel comfortable about interacting with trusted companies that offer online services.	Agree	2	3.9714	0.78943
I feel satisfied in using online services.	Agree	3	3.9505	0.82402
Online billing is the best way to pay bills.	Agree	4	3.9010	0.87650
The online billing services affect me positively.	Agree	5	3.8750	0.83650
Online billing services leads faster to loyalty.	Agree	6	3.8568	0.83825
I can interact with the online billing websites easily.	Agree	7	3.8333	0.88994
I get fast responses from the websites.	Agree	8	3.8099	0.85978
The online billing services meet my expectations.	Agree	9	3.7943	0.78622
I trust the online billing services websites.	Agree	10	3.7161	0.89975
I can find all my needs in the online billing services.	Agree	11	3.6745	0.94262
I like the overall design of the online billing websites.	Agree	12	3.6302	0.86337
I receive apologizes from the website if they didn't serve me on time.	Agree	13	3.5182	0.95577
	Agree	-	3.8101	0.60683

Table (4-9) clarifies the responses of Customer satisfaction dimension (dependent Variable) in order to clarify importance level of each item,

means ranged between (3.5182) to (4), the evaluation of customer satisfaction and clarifies that the lowest mean was **(3.5182) for “I receive apologizes from the website if they didn’t serve me on time”**, with standard deviation (0.95577) but the highest mean was (4) for **“I find it attractive to use the online services”**, with standard deviation (0.80469) In general, it appears that evaluation of customer satisfaction is Agree with mean (3.8101) according to the respondents' viewpoints, The variance of distribution range is (0.4818), the domain standard deviation is (0.15108) which considered good, and indicates that variance is low and the responses are close to each others.

#### **4.4 Hypothesis Testing**

Simple Linear Regression analysis was used in this part by the researcher to test the study hypothesis; some other tests were used to ensure that the data fit the regression analysis.

Tolerance and variance inflation (VIF) were used for each independent variable of the study in order to detect the colliearity statics, as shown in the table (4-11) below

**Table (4-11) Collinearity statistics: VIF, Tolerance test**

Independent Variables	Tolerance	VIF
E-bills	0.41	2.20
Customer resistance to change	0.38	2.72
Access to technology	0.70	1.40
Privacy concerns	0.51	1.95

To test the study hypotheses; the researcher has used "multiple regressions analysis" to analyze the impact of the E-bills and its factors (Customer resistance to change, Access to technology, Privacy concerns) on Customer satisfaction. Some assumptions should be performed in order to be able to use the multiple regressions; Normality, validity, reliability, and correlation. "F" is showing the fitness of the model in the analysis, while, "R<sup>2</sup>" is indicating the variance value between independent and dependent variables for the model (Sekaran & Bougie 2010).

#### **4.4.1 First main Hypothesis.**

**H<sub>01</sub>:** There is no impact of E-bills on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).

The researcher used the simple linear regression analysis in testing the hypothesis to ensure that there is an impact of the E-bills on customer satisfaction at level ( $\alpha \leq 0.05$ ).

As shown in the below table (4-12).

E-bills	R	(R <sup>2</sup> )	Adjusted (R <sup>2</sup> )	F	Sig*	Beta	T	Sig
	0.834	0.695	0.694	871.2	0.000	0.834	3.566	0.000

\*The impact is significant at level ( $\alpha \leq 0.05$ ).

Table (4 -12) shows different statistics which indicated no significant impact at a significant level ( $\alpha \leq 0.05$ ) of the E-bills and its factors (Customer resistance to change, Access to technology, Privacy concerns) on Customer satisfaction , where (R) value reached (0.834); indicates that there is a positive correlation between E-bills and Customer satisfaction, (R<sup>2</sup>) value reached (0.695). This means that 0.69 % of changes value in Customer satisfaction resulted from the changes in the E-bills at all variable.

Moreover, the table proves that the value of (adjusted R<sup>2</sup>) is very close to the value of (R<sup>2</sup>). If the (adjusted R<sup>2</sup>) is excluded from (R<sup>2</sup>) as following:  $(0.695 - 0.694) = (.001)$ . This small reduction (.001) means that if the model has been accepted to the whole population of the participates in this study, the higher variance in the outcome was (.001), as a result, the main hypothesis (Ho1) was rejected and the alternative hypothesis was accepted to be as following:

There is a significant impact of E-bills and its factors (Customer resistance to change, Access to technology, Privacy concerns) on the Customer satisfaction, at the level of significance ( $\alpha \leq 0.05$ ).

#### 4.4.2 First Sub Hypothesis.

**H<sub>0</sub>-1:** There is no impact of Customer resistance to change on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).

The researcher used the simple linear regression analysis in testing the hypothesis to ensure that there is an impact of Customer resistance to change on customer satisfaction at level ( $\alpha \leq 0.05$ ).

As shown in the below table (4-13).

Customer resistance to change	R	(R <sup>2</sup> )	Adjusted (R <sup>2</sup> )	F	Sig*	Beta	T	Sig
	0.603	0.364	0.362	218.715	0.000	0.603	13.724	0.000

\*The impact is significant at level ( $\alpha \leq 0.05$ ).

Table (4 -13) shows different statistics which indicated no significant impact at a significant level ( $\alpha \leq 0.05$ ) of the Customer resistance to change on Customer satisfaction, where (R) value reached (0.603); indicates that there is a positive correlation between the Customer resistance to change and Customer satisfaction, (R<sup>2</sup>) value reached (0.364), this means that **0.36 %** of changes value in Customer

satisfaction resulted from the changes in the Customer resistance to change at all variable.

Moreover, the table proves that the value of (adjusted  $R^2$ ) is very close to the value of ( $R^2$ ). If the (adjusted  $R^2$ ) is excluded from ( $R^2$ ) as following:  $(0.0364 - 0.362) = (.002)$ . This small reduction (.002) means that if the model has been accepted to the whole population of the participates in this study, the higher variance in the outcome was (.002), as a result, the First sub hypothesis (**H<sub>o</sub>-1**) was rejected and the alternative hypothesis was accepted to be as following:

There is a significant impact of Customer resistance to change on the Customer satisfaction, at the level of significance ( $\alpha \leq 0.05$ ).

#### **4.4.3 Second Sub Hypothesis.**

**H<sub>o</sub>-2:** There is no impact of access to technology on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).

The researcher used the simple linear regression analysis in testing the hypothesis to ensure that there is an impact of Access to technology on customer satisfaction at level ( $\alpha \leq 0.05$ ).

As shown in the below table (4-14).

Access to technology	R	(R <sup>2</sup> )	Adjusted (R <sup>2</sup> )	F	Sig*	Beta	T	Sig
	0.683	0.467	0.465	334.515	0.000	0.683	8.557	0.000

\*The impact is significant at level ( $\alpha \leq 0.05$ ).

Table (4 -14) shows different statistics which indicated no significant impact at a significant level ( $\alpha \leq 0.05$ ) of the Access to technology on Customer satisfaction , where (R) value reached (0.683); indicates that there is a positive correlation between the Access to technology and Customer satisfaction, (R<sup>2</sup>) value reached (0.467). This means that 0.46 % of changes value in Customer satisfaction resulted from the changes in the Access to technology at all variable.

Moreover, the table proves that the value of (adjusted R<sup>2</sup>) is very close to the value of (R<sup>2</sup>). If the (adjusted R<sup>2</sup>) is excluded from (R<sup>2</sup>) as following:  $(0.467 - 0.465) = (.002)$ . This small reduction (.002) means that if the model has been accepted to the whole population of the participates in this study, the higher variance in the outcome was (.002), as a result, the Second sub hypothesis (**H<sub>o</sub>-2**) was rejected and the alternative hypothesis was accepted to be as following:

There is a significant impact of Access to technology on the Customer satisfaction, at the level of significance ( $\alpha \leq 0.05$ ).

#### 4.4.4 Third Sub Hypothesis.

**H<sub>o</sub>-3:** There is no impact of privacy concerns on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).

The researcher used the simple linear regression analysis in testing the hypothesis to ensure that there is an impact of Privacy concerns on customer satisfaction at level ( $\alpha \leq 0.05$ ).

As shown in the below table (4-15).

Access to technology	R	(R <sup>2</sup> )	Adjusted (R <sup>2</sup> )	F	Sig*	Beta	T	Sig
	0.729	0.532	0.531	433.815	0.000	0.729	15.976	0.000

\*The impact is significant at level ( $\alpha \leq 0.05$ ).

Table (4 -15) shows different statistics which indicated no significant impact at a significant level ( $\alpha \leq 0.05$ ) of the Privacy concerns on Customer satisfaction , where (R) value reached (0.729); indicates that there is a positive correlation between the Privacy concerns and Customer satisfaction, (R<sup>2</sup>) value reached (0.532). This means that 0.53 % of changes value in Customer satisfaction resulted from the changes in the Privacy concerns at all variable.

Moreover, the table proves that the value of (adjusted  $R^2$ ) is very close to the value of ( $R^2$ ). If the (adjusted  $R^2$ ) is excluded from ( $R^2$ ) as following:  $(0.532 - 0.531) = (.001)$ . This small reduction (.001) means that if the model has been accepted to the whole population of the participates in this study, the higher variance in the outcome was (.001), as a result, the Third sub hypothesis (**H<sub>o</sub>-3**) was rejected and the alternative hypothesis was accepted to be as following:

There is a significant impact of Privacy concerns on the Customer satisfaction, at the level of significance ( $\alpha \leq 0.05$ ).

At the end, after all the analysis and the tests, the results of the hypothesis testing, are shown in the below table: (4-16):

Hypothesis	Results	Accepted Hypothesis
<b>H<sub>o</sub>1:</b> There is no impact of E-bills on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).	Rejected	There is a significant impact of E-bills on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).
<b>H<sub>o</sub>-2:</b> There is no impact of Customer resistance to change on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).	Rejected	There is a significant impact of Customer resistance to change on Customer Satisfaction at the level of significance ( $\alpha \leq 0.05$ ).
<b>H<sub>o</sub>-3:</b> There is no impact of access to technology on Customer Satisfaction at the level of significance ( $\square \leq 0.05$ ).	Rejected	There is a significant impact of access to technology on Customer Satisfaction at the level of significance ( $\square \leq 0.05$ ).
<b>H<sub>o</sub>4-:</b> There is no impact of privacy concerns on Customer Satisfaction at the level of significance ( $\square \leq 0.05$ ).	Rejected	There is a significant impact of privacy concerns on Customer Satisfaction at the level of significance ( $\square \leq 0.05$ ).

## **Chapter Five**

### **Results, Conclusions and Recommendations**

#### **5.1 Introduction.**

#### **5.2 Results Discussion of the Study.**

#### **5.3 Study Conclusion.**

#### **5.4 Study Recommendation and Future work.**

#### **5.1 Introduction:**

The main objective of this study is to investigate the impact of E-bills and its factors on customer satisfaction; this study model required an extensive literature review to be built. The model inducted two types of variables: the independent variables, which include (E-bills, Customer resistance to change, access to technology, privacy concerns) and the dependent variable (Customer satisfaction).

## 5.2 Results Discussion of the Study.

As explained in chapter 4 for hypothesis testing and analyzing the data, the researcher has generate the results from this piece of work can be summarized as follows: The results of the study showed that E-bills and its factors have an impact on the customer satisfaction, despite of it is a new service that not everyone have knowledge about it.

- The percentage of respondents whom have an intention to use the online billing services is high despite the lack of knowledge, According to the results, the means of the Four independent variables are high which ranged from (3.5349 - 4.1228). The highest mean was for **E-bills**, whereas the lowest mean was for **Privacy concerns**. This indicates that the levels of importance are high to the four main variables and the respondents agreed with the importance of E-bills, not to mention the positive viewpoints toward E-bills factors.

- The result shows that the mean of E-bills was (4.1228) and it is the highest levels of importance between the other variables, the results indicate that E-bills have an impact on increasing customer satisfaction, and there must be more knowledge about the E-billing services and what are the benefits of using it instead of the traditional way to pay bills.

- The result shows that the mean of Customer resistance to change variable was (3.7513) and it is the Third highest level of importance between the

other variables, The results indicate that Customer resistance to change have an impact on increasing customer satisfaction, by introducing the benefits of the E-billing services and proving that there are no barriers could stop the customers from changing to the online way of paying their bills.

- The result shows that the mean of Access to technology variable was (4.1026) and it is the Second highest level of importance between the other variables, The results indicate that there is an impact of Access to technology on Increasing customer satisfaction, which most of the people nowadays have a good knowledge about the current technologies that are being used which make it easier to access to the internet and to the online websites that offer online services.

- The result shows that the mean of Privacy concerns variable was (3.5349) and it is the lowest level of importance between the other variables, but the results indicates that There is an impact of Privacy concerns on Increasing customer satisfaction by developing the websites and the applications that offer online billing services to be more safe and to protect their customer's financial and personal information.

Moreover, the respondents consider and agree on E-bills and its factors (Customer resistance to change, Access to technology, Privacy concerns) toward Customer satisfaction as important factors, they also have positive viewpoints toward E-billing services.

### **5.3 Study Conclusion.**

This research aimed to study the impact of E-bills and its factors on customer satisfaction. It tried to determine the key of E-bills factors that have an impact on customer satisfaction. Finally, in this new digital world of business, E-bills services seem to be the right solutions to get satisfy customers, in the current E-business environment, various benefits can be gained from for the organizations such as optimizing, satisfied customers, maximizing operational and managerial profits, improving strategies and organizational benefits.

To achieve the objectives of this study, a model have been developed by the researcher to measure the impact of E-bills on customer satisfaction. An Extensive literature review has been done and was necessary for developing research model. The model has two main variables: E-bills and its factors (Customer resistance to change, Access to technology, Privacy concerns) and Customer satisfaction

The developed model applied and tested in the E-bills users in Jordan, the sample was determined to include the E-bills users especially Efawateercom users. For hypotheses testing, a questionnaire instrument was designed on the basis of the constructed model. Prior to data collection, the questionnaire instrument was validated by a number of professors and experts in the domain of this study and working at Middle East University and other universities in Amman. The questionnaire instrument was

validated in terms of clearance, meaning, design and its ability to measure the constructs included within the research model. The questionnaire instrument was revised to reflect the comments and suggestions those received by the referees. The population of this research is the E-bills users especially Efawateercom users .the study sample is E-bills services users especially Efawateercom users in Jordan. The researcher distributed (384) questionnaires according to the simple random sample method (Sekaran & Bougie, 2013).

The analyses have been done using Statistical Package for Social Sciences (SPSS).

Following data analysis, results were obtained and defined in chapter four. Having a positive impact between E-bills and customer satisfaction gives organizations in the Electronic billing services industry in Jordan an indicator to invest more on their E-billing services to make their customers more satisfy, and having a positive impact of E-bills and its factors on customer satisfaction gives organizations more and more clues to invest in using the online technologies.

#### **5.4 Study Recommendation and Future work.**

Based on study results and conclusions, the following recommendations are suggested:

- 1- After the research on E-bills and its impact on customer satisfaction, a special focus on the E-bills services should be applied.
- 2- Developing apps and specialized websites in E-bills services concerns with customer satisfaction that are useful and easy to use should be supported.
- 3- The researcher recommends that the model of this study should be adopted by the companies that offer online billing services to get feedback about their customer's level of satisfaction.
- 4- The model of the study should be applied on a larger sample of the companies that offers the online billing services in Jordan.
- 5- The researcher suggests that the companies that offers online billing services should develop and work on their websites and applications to gain more benefits for the company itself and the customers.

- 6- The researcher recommends that the companies should offer more of their services to encourage people to change to the online way to pay their bills.
- 7- Companies that offer online billing services should enhance their marketing efforts to gain more customers and to gain a competitive advantage of their services.
- 8- Companies that offer online billing services should develop their strategies in order to increase the customer satisfaction.
- 9- Companies that offer online billing services are recommended to develop their efforts to increase the knowledge about the online billing services in the customers and non-customers minds.
- 10- The researcher recommends that companies that are specialized in E-billing services should develop their websites and apps to be safer and to protect the customer's financial and personal information so that make a change in customers minds that are afraid of changing to the online ways of paying bills.

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## Appendixes

Questioner:



Dear Participant,

The researcher is currently conducting a scientific study intended to identify the: **“The Impact of Electronic bills on Customer Satisfaction”**: A field study on Efawateercom users.

The purpose of this study is obtain master’s degree in E-Business, your assistance to answer the study questionnaire means a lot to us, and will add value to our study. It will be used only for academic purpose and will not be used outside the scope of this scientific research.

I should appreciate very much your kind assistance to answer the attached questions.

Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	2	3	4	5

Researcher: Abdullah AL-Ashqar.

Supervisor: Prof. Hebah H.O

Nasseraldeen.

**Thank you very much in anticipation.**

**Part one:** This section for classification purpose, kindly respond to these questions by selecting or ticking (✓) in the boxes provided for each statement

Q.1

Gender:

☐ Male      ☐ Female

Q.2

Age:

- ☐ Less than 31
- ☐ 31 – 40
- ☐ 41 – 50
- ☐ More than 50

Q.3: Which of the following ways do you use? You can choose more than one...

☐☐☐☐

Efawateercom portal

Bank website

Mobile apps

other

If other please specify...

Q.4: What is the most services do you use in Efawateercom? You can choose more than one...

☐ Mobiles prepaid cards

☐ Paying bills

☐ money transfer

☐ Banks payments

☐ Governmental services
**Part two:**

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
<b>• Electronic bills (E-bills):</b> Electronic bills are a part of the E-payments which it's a subgroup of the Electronic commerce, to move the purchasing and paying process to be online through internet for products and services.						
5.	I pay bills online usually.					
6.	I prefer paying bills online rather than the traditional way.					
7.	Paying bills online saves time.					
8.	Paying bills online reduces costs.					
9.	Paying bills online is a good way to keep records.					
10.	Paying bills online saves efforts.					
<b>• Customer resistance to change:</b> customer's resistance to change from the traditional way of paying bills to the electronic way.						
11.	I prefer to move to the online way of paying bills					
12.	i prefer to stop receiving bills papers and statements.					
13.	I will resist continuing receiving paper bills and statements.					

14.	I would pay a fee rather than keep on the traditional way of paying bills					
<b>• Access to technology:</b> the ability to get access to technologies and to use it.						
15.	I can easily access to the internet.					
16.	I can easily interact with websites.					
17.	I can easily finish the billing transactions.					
18.	I can easily operate with computers.					
19.	I find it reliable to use different kinds of technology.					
<b>• Privacy concerns:</b> threats of using personal information and financial details online						
20.	I trust the online billing services:					
21.	i am not afraid to insert my card details online.					
22.	i am not worry about sending my information over the internet.					
23.	I feel confident about doing business with a company can be reached online only.					
24.	The online transactions don't have to be confirmed with something in writing.					
<b>• Customer satisfaction:</b> the client's attitude or behavior towards a firm, or an emotional reaction to the differences between what clients expect and what they get, regarding the fulfillment of desire, need or goal by the firm.						
25.	The online billing services meet my expectations.					
26.	The online billing services affect me positively.					
27.	I feel comfortable about interacting with trusted companies that offer online services.					
28.	I feel satisfied in using online services.					
29.	I find it attractive to use the online services.					
30.	I can find all my needs in the online billing services.					
31.	Online billing services leads faster to loyalty.					
32.	I get fast responses from the websites.					
33.	I receive apologizes from the website if they didn't serve me on time.					
34.	I like the overall design of the online billing websites.					
35.	I can interact with the online billing websites easily.					
36.	I trust the online billing services websites.					
37.	Online billing is the best way to pay bills.					

## Appendix 2: Names of arbitrators.

No.	Name	Institution
1	Dr. Anas ALhadeed	Applied science university
2	Dr. Hamad ALghadeer	Applied science university
3	Dr. Jamal Joudeh	Applied science university
4	Prof. Osama Rabaabah	Middle East University
5	Dr.Dujana ALNabulsi	Balqa applied university
6	Dr. Hana Hunaity	Islamic Scientific university
7	Dr. Sameer ALJabali	Middle East University

Thank you