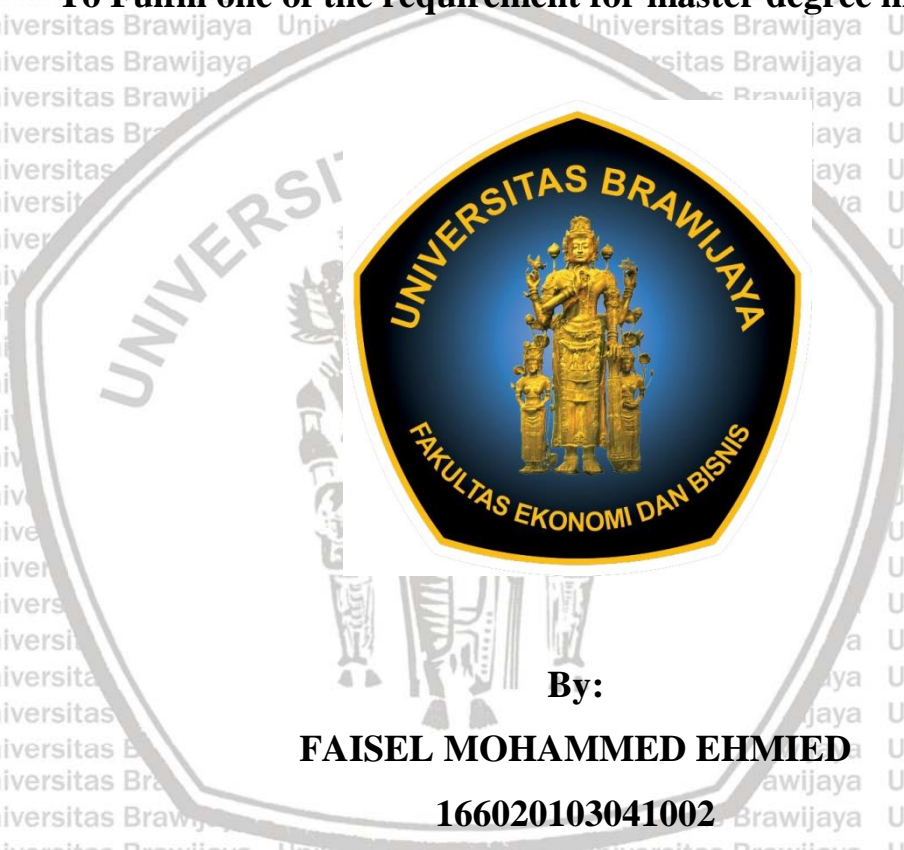


**THE EFFECT OF SERVICE QUALITY AND  
RISK PERCEPTION ON CUSTOMER SATISFACTION,  
WITH THE MODERATION OF INCOME AND INTEREST  
RATE**

**(A Case Study at Al Jumhuriya Bank in Libya)**

**THESIS**

**To Fulfill one of the requirement for master degree in Economics**



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**MALANG**

**2019**

# T E S I S

**THE EFFECT OF SERVICE QUALITY AND RISK PERCEPTION ON  
CUSTOMER SATISFACTION, WITH MODERATING VARIABLES OF  
INCOME AND INTEREST RATE IN AL JUMHOURIYA BANK IN LIBYA**

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**THE EFFECT OF SERVICE QUALITY AND RISK PERCEPTION  
ON CUSTOMER SATISFACTION WITH THE MODERATION  
OF INCOME AND INTEREST RATE  
(A CASE STUDY AT AL JUMHOURIYA BANK IN LIBYA)**

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**ABSTRACT**

*Nowadays the attention to customer satisfaction is getting bigger and improved. To win the competition, companies must be able to provide satisfaction to their customers. A product will be accepted and able to survive in the market competition if it can provide maximum satisfaction to consumers. This study was conducted at Jumhouria Bank, the largest and the leading bank in Libya, the result of the merger between Umma Bank and Jumhouria Bank. Its total capital is 1 billion Libyan dinar, and its total assets in 2012 was 33 billion Libyan dinars on the balance sheet and 12 billion dinar off the balance sheet. The bank's total assets of 44 billion Libyan dinar makes it the largest bank in Libya in terms of assets. The bank grows by 15% YOY and operates the largest nationwide network of 150 branches. It is the largest employer in banking sector with 6000 employees. Jumhouria Bank alone is accounted for 38.8% of the total Libyan commercial banking assets, 42.7% of total Libyan banking deposits, and 40.7% of total Libyan banking loans. It generated 240 million Libyan dinars for 2013 in net profit, despite 2012 being just the first year after the revolution.*

**Keywords:** *service quality, risk perception, income, interest rate, customer satisfaction*

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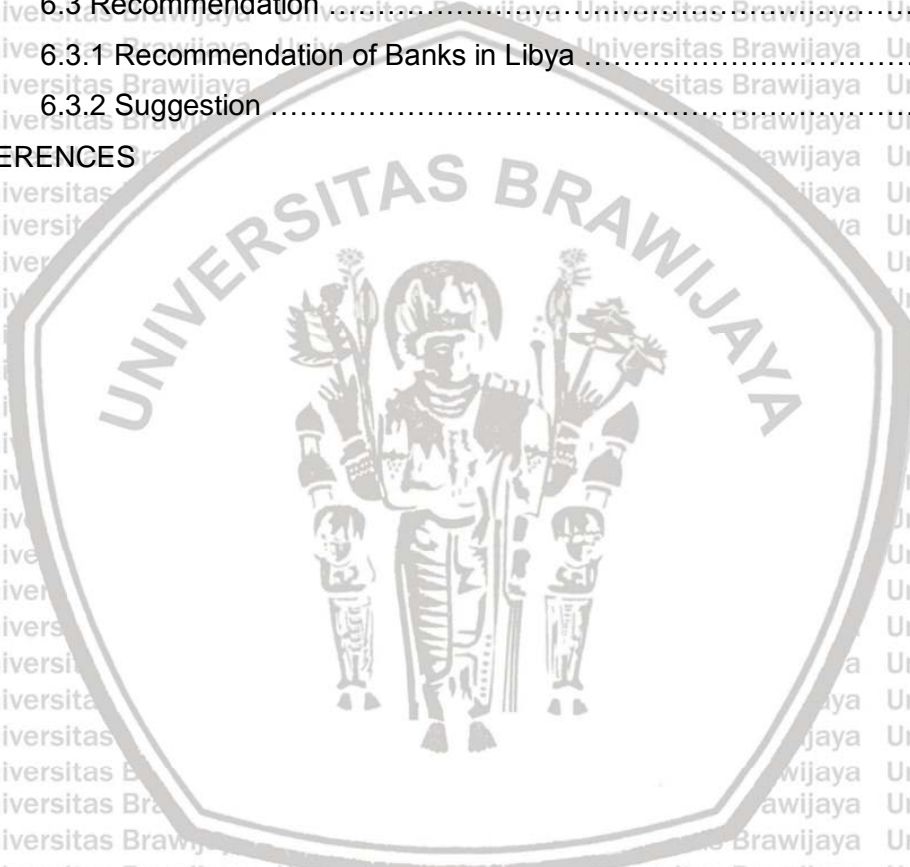
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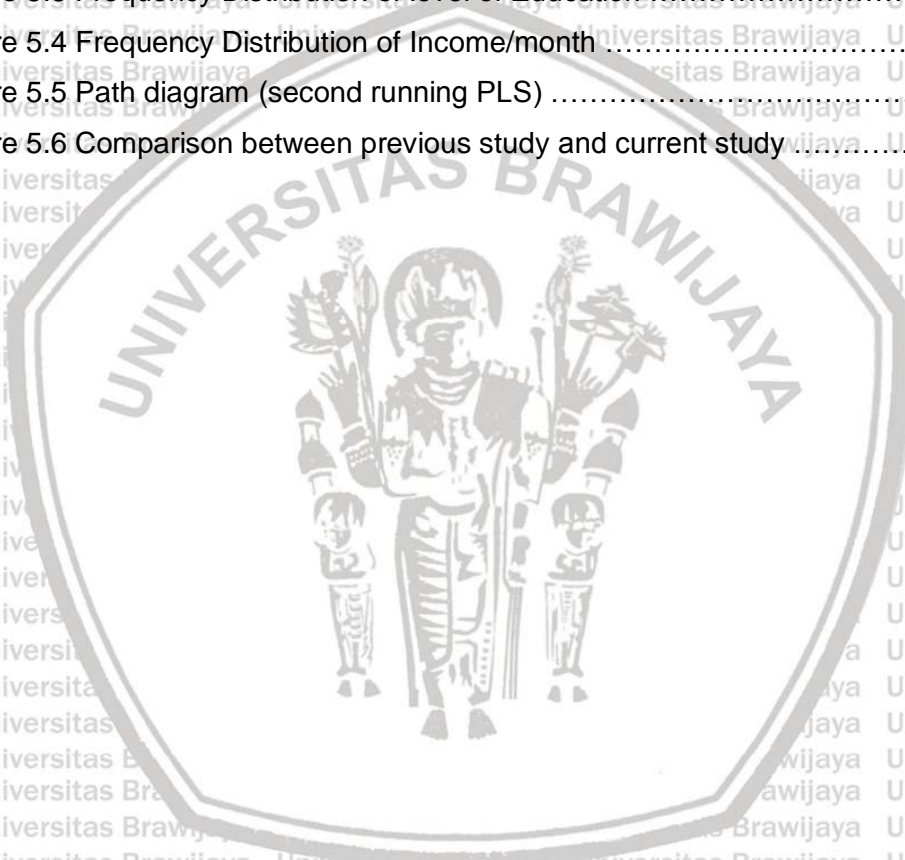
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## CHAPTER I INTRODUCTION

### A. RESEARCH BACKGROUND

Consumer behavior according to Kotler (2008: 25) is influenced by several things such as: cultural factors that have an extensive and profound influence on consumer behavior, social factors such as reference groups, families and social status, personal factors that contribute to consumer behavior (consisting of age and the stages of the life cycle, work and economic environment, lifestyle, personality and self-concept), psychological factors namely motivation, perception, learning, and beliefs and convictions.

Nowadays, the attention to customer satisfaction is getting bigger and improved. To win the competition, companies must be able to provide satisfaction to their customers. A product will be accepted and survive in the market competition if it can provide maximum satisfaction to consumers. The concept of customer satisfaction is one of the concepts that has developed since the 1970s.

Oliver (1981) defines satisfaction as an attitude towards the outcome of a transaction. The company's efforts are to provide the best for its customers so that what they expect is following reality so that they are satisfied and will form a positive consumer experience. According to Engel et al., (2010), customer satisfaction is a full-time evaluation where at least the results (outcomes) equal or exceed customer expectations. While dissatisfaction arises when the results obtained, do not meet customer expectations.

Customer satisfaction in the company's service will be essential to maintain the company's position in the market. Consumer satisfaction is a crucial factor for the existence, continuity, and development of the company. Today many

companies are increasingly understanding the importance of customer satisfaction and implementing strategies to provide satisfaction to their customers.

Lots of research adapts the findings obtained by Parasuraman and friends, and they always connect the variable of service quality to customer satisfaction. Excellent services quality is one factor that can attract consumers to buy. Excellent service quality will determine consumer attitudes in assessing, deciding as well as giving an impression of the services provided. Cronin and Taylor (Altman & Helms, 1995: 45) say, "Service quality is the measure of how well the service level delivered matches customer expectation."

Things that need to be considered in providing services is to know the opinions of consumers, means the company must interact with consumers with the view to obtain feedback in the form of consumer responses about facilities and infrastructure associated with services provided as control and measure of the company success product, either goods or services produced should be in accordance with customer needs and expectations. Customer is the key to the success of the company. Such a vital role has made the company seek to attract it to become a buyer of its products. To reach that goal, the company then develops strategies for customers in a unique way. In this case, the quality of service is determined by the ability of the company in knowing the customer's needs and desires. This means the ability and sensitivity of the company in capturing what the customer's expectations are very satisfied with good or bad service provided.

Quality starts with customer needs and ends in consumer perception. This means that good quality is not based on the perspective or perception of the company, but rather from the consumer point of view or perception.

Risk perception is also important factors that influence consumers to purchase a product. Risk perception is a feeling of uncertainty over the negative consequences of decisions taken by consumers (Samadi and Yaghoob-Nejadi,

2009). According to Featherman and Pavlov (2003), risk perception is perceived as the level of consumer perceptions of negative results obtained from online transactions. Perception is an internal factor in the individual. Internal influences are factors in the individual, namely perception, learning, memory, motives, personality, attitudes, and emotions. External influences are factors outside the individual, namely the lifestyle of consumers, social status, culture, values, and influence of reference groups (Hawkins, 1994). Both are other supporting factors that influence consumers in conventional purchases and have the same principles when associated with an online transaction.

Transaction risk perception is assessed as the level of customer perception of the negative results obtained when conducting transactions online (Featherman & Pavlou, 2002). Perception presents an individual's assessment of the possibilities that relate to positive or negative results from a transaction or situation. The level of customer trust is the first thing to consider concerning a purchase transaction.

Risk has an impact on a person's attitude and behavior in making transactions with other parties. The level of risk is an essential factor in shaping customer attitudes and behavior in all kinds of business transactions. A high level of risk will make customers uncomfortable in conducting e-commerce (Kathryn & Mary, 2002). Management of transaction risk needs to be a concern for banks because the interest of people doing transaction can be decreased due to the risk that is too high. When perceptions of risk are high, consumers will think about whether to avoid purchasing or minimize risk through disbursement and evaluation of other alternatives. Perception of risk refers to the sense of uncertainty experienced by consumers when deciding to make purchases. In the context of transactions, individuals will tend to see risks that might arise from the transactions that will be carried out.

In the current era of globalization, business competition is getting tighter. The world is heading towards globalization in all fields. Here financial institutions should be unique because the financial services industry plays an essential and distinctive role in the economies of all countries of the world. The banking industry today is experiencing very rapid development resulting in the strict and competitive banking business. This fact cannot be denied so that every bank is required to use various ways in attracting public interest. Banks, as financial institutions whose primary business is providing money storage services and redistributing it in various lending alternatives to the public also need to focus on service quality and risk perception to satisfy its customers.

Banks have to understand and measure its services quality and studies the expectations and perceptions of customers to the quality of the service provided by the banks and technological development, which led to competition and challenges as a result of the great progress of banking services. As a service company, banks are required to be more professional, trustworthy, and superior in service and can keep pace with changes quickly in customers' desires. A bank must be able to adapt to the ever-changing business environment and keep abreast of market needs in order to survive and successfully run its business. Banks should be prepared to face very tight competition to gain a large market share. The key to the success of bank management is how the bank can attract public interest, so its role as a financial intermediary goes well.

A bank should monitor the satisfaction of its customer; customer can choose the kind of offer of the bank's product or service, the bank should be able to provide excellent service quality, if not done then the customer will move to another bank that can give better service. Excellent service quality in a bank will create satisfaction for its customers. If customers feel completely satisfied, they will buy back and recommend to others to use the same bank. Therefore, the bank

must think about the importance of customer service through service quality because customer satisfaction is a vital aspect in order to survive in business and win the competition.

Income and interest rates also relate to the world of banking. The increase in people's living costs will reduce their real income because rising prices have absorbed their income. With the smaller residual income after being reduced, the bank will increase the bank's interest rate. If the interest rate given by the bank to the customer is high, then the interest rate given by the borrowers is also high.

Third-party funds for banks are a significant source of funds, especially for lending. This is also a mobilization of funds needed for development, as well as one of the arrangements for the money supply. In the case of third party funds where many determinants can affect the bank include inflation, interest rates, security, service, marketing, and management. The factor that attracts someone to save at the bank is the interest rate offered. According to Nopirin (2000: 23), the interest rate is the cost that must be paid by the loan for the loan received and is a reward for the lender for his investment. All that make the management of banks operating in Libya need to refine with these challenges and to cope with the effects and keep pace with scientific development, it is worth mentioning here that the banks working in Libya develop their services quality to keep in a high competitive level from other banks globally and not losing its customers.

This study is in Al Jumhouria Bank in Libya, which is the largest and the leading bank in Libya. It is the result of the merger between both Umma & Jumhouria banks. Al Jumhouria bank has a total capital of 1 billion Libyan dinar and total assets for 2012 of 33 billion Libyan dinars on the balance sheet and 12 billion dinars off the balance sheet. Thus, the total assets for the bank are 44 billion Libyan dinars making effectively Jumhouria bank the largest bank in Libya by assets. The bank grows by 15% YOY and operates the largest nationwide network



of 150 branches. Jumhouria Bank is the largest employer in the banking sector, with 6000 employees. Jumhouria Bank alone accounted for 38.8% of the total Libyan commercial banking assets, 42.7% of total Libyan banking deposits, and 40.7% of total Libyan banking loans. Jumhouria Bank generated 240 million Libyan dinars for 2013 in net profit, despite 2012 being just the first year after the revolution. This makes 24% of the capital, which is an excellent result ([www.marcopolis.net](http://www.marcopolis.net)).

In the Libyan economy, the banking sector is one of the most important. Its significance increased after the 2003 lifting of the United Nations sanction. This was followed by entry to the sector of several domestic and multinational firms. Despite this increased competition, domestic banks are still widely considered to suffer from low levels of service quality. Therefore, the primary purpose of this study is to examine and compare expectations and perceptions from customers and bankers regarding the service quality provided by the commercial public in Libya (Mohamed.E 2015).

This study is about the effect of service quality and risk perception on customer satisfaction with the moderating variables of income and interest rate.

Other variables may influence the direct relationship between the independent variables and the dependent variable. One of them is the moderating variable, which is the type of variables that strengthen or weaken the direct relationship between the independent variable and the dependent variable. Moderating variable is a type of variable that influences the nature or direction of relations between variables. The nature or direction of relations between independent variables and the dependent variables is likely positive or negative in this case depending on the moderating variable. Therefore, the moderating variable is also called the contingency variable.

Bank interest rates can have an impact on the relationship between the variables, in this case, is the interest rates on savings and deposits because the intended customers are customers who save their money in the bank. The high or low-interest rates provided by the bank create customer perceptions about the condition of the bank so that it impacts on the high or low of the risk that will be received by the customer. High-interest rates can have a good impact on customer risk perception and customer satisfaction because they will feel secure to save money in the bank. They will have the perception that the bank is in good condition, so they put their trust in saving their money in the bank. Conversely, if the interest rates are low or declining, customers may feel less secure and less satisfied, worried about the financial condition of the bank, and even consider moving to another bank that provides higher interest rates. Bank with high-interest rate also shows that the bank is in the right conditions and give more benefit to the customer. Bank with this condition tend to have many customers, so the quality of services also needs attention.

The income of customer also can have an impact on the relationship between the variables. High-income customers tend to use bank services to save substantial amounts of money over a long period with a more frequent transaction, so they need certainty about the high or low of the risk they will receive and how good the service quality of the bank whereas customers with low income tend to use bank facilities in the form of transfer facilities and not really concern about the risk perception and the bank service quality. There are some empirical studies related to this study about service quality, risk perception, and customer satisfaction that found negative and positive impact among the variables.

Arthur et al. (2016) found that service quality had a negative impact on customer satisfaction, Paul et al. (2015) found that assistance to the customer, appearance, and follow up are negatively associated with customer satisfaction,

Cudjoe et al. (2015), Sackey et al. (2012), Saghier and Demyana (2013), Anand et al. (2012), Rashed and Tabassum (2014), Lassar et al. (2000), Nai and Shu (2008) and Chaniotakis and Lympelopoulous (2009) conducted studies on the relationship between service quality dimensions and customer satisfaction and the studies have revealed both positive and negative relationship with customer satisfaction.

Chang et al. (2017) found that the bank's service quality has a positive impact on customer satisfaction, study by Melaku (2015) indicate that service quality has positive and significant relationship with customer satisfaction, Alkayed (2014) indicated that service quality is an essential antecedent of customer satisfaction, Wafaa (2014) confirm the existence of a positive indirect impact of banking service quality on customer satisfaction, Andreany and Wijayanti (2014) showed that the proper services implemented by Bank Central Asia in Surabaya have a powerful influence on its customer satisfaction, and Naeem et al. (2009) concluded that service quality, if managed effectively, can contribute significantly towards customer satisfaction.

Study about risk perception and customer satisfaction conducted by Ghotbabadi et al. (2016) found a robust negative correlation between the perceived risk and customer's satisfaction. Johnson (2008), in his study, said that there is less support for a model in which satisfaction reduces perceived risk. Research by Hovens (2013) found no support for perceived risk to influence customer satisfaction.



Research gaps in this study can be seen from those many previous studies. There is a different finding of the relationship among the three variables used for this study. Some studies found a negative correlation, and some other studies found a positive correlation.

**Table 1.1 Competition between customer satisfaction and Customer Loyalty**

Customer satisfaction	Customer loyalty
Customer Satisfaction is the result of a process	Customer loyalty is related to the relationship between the company and the customer.
Customer Satisfaction is a measurement or indicator of the extent to which customers or users of company or service products are pleased with the products or services received	Customer Loyalty includes behavior (Customer Retention) in which customers repurchase a particular brand of goods at this time, rather than choosing a competing brand instead of using their current services rather than choosing other services
Customer Satisfaction is a comparison between expectations of perceptions of experience (perceived/received)	Customer Loyalty includes an attitude where the customer's judgment and feelings about a product, service, relationship, brand, or company are related to repeat purchases.

#### Measurement of customer satisfaction:

- Tangible
- Reliability
- Responsiveness
- Assurance
- Empathy

#### Measurement of customer loyalty:

- Product Purchases or Services Use Repeatedly
- Product Purchase or Use of Other Services
- Recommend products or services to others

Customer satisfaction and loyalty have interrelated relationships but do not always encourage others. For example, Customers may not be satisfied but loyal. This customer is called Captives. It also allows customers who are very satisfied but not disloyal. This situation occurs in highly commoditized markets where there is little or no product/service differentiation

A bank is a financial institution that accepts deposits from the public and creates credit. Lending activities can be performed either directly or indirectly through capital markets. Due to their importance in the financial stability of a country, banks are highly regulated in most countries. Most nations have institutionalized a system known as fractional reserve banking under which banks hold liquid assets equal to only a portion of their current liabilities.

## B. RESEARCH PROBLEMS

Research problem in this study is as the service quality, risk perception and customer satisfaction represent the real concern of all service organizations that want to achieve status and to seek to stabilize and sustain its scope of work,

it was worthwhile for us to deal with them ask the following central question: The extent to which bank's service quality and risk perception has been affected by customer satisfaction through the above main question, we can rely on the following sub-questions:

1. Does service quality effect on customer satisfaction?
2. Does risk perception effect on customer satisfaction?
3. Does income moderate the effect of service quality and risk perception?
4. Does interest rate moderate the effect of service quality and risk perception?

The main problem in this study is that there is no research in Libya about the relationship between service quality, risk perception, and customer satisfaction.

### **C. RESEARCH GOALS**

This research aims at identifying the level of impact of service quality provided by bank and risk perception to its customer satisfaction to improve the quality of its services and to satisfy its customers; this study aims to:

1. To measure the effect of risk perception on customer satisfaction
2. To measure the effect of service quality on customer satisfaction
3. To measure the effect of risk perception and service quality on customer satisfaction with the moderating variables of income and interest rate
4. To measure the effect of moderating variable in this study on customer satisfaction.

### **D. RESEARCH CONTRIBUTION**

The importance of this research is to express the risk perception and quality of services provided by bank to its customer satisfaction and the extent of in order to win their satisfaction, and to try to show the relationship between three effective variables quality as an enterprise strategy, customer satisfaction as a

result, and measurement as a means of assessing the degree of satisfaction or not the satisfaction.

1. Enriching the scientific library
2. Solve the problems facing Al Jumhouria bank in Libya
3. As literature for another researcher to do future research



## CHAPTER II

### THEORETICAL REVIEW

#### 2.1. THEORY

##### 2.1.1. BANKING AND FINANCE

###### A. Definition

A bank is a financial institution that accepts deposits from the public and creates credit. Lending activities can be performed either directly or indirectly through capital markets. Due to their importance in the financial stability of a country, banks are highly regulated in most countries. Most nations have institutionalized a system known as fractional reserve banking under which banks hold liquid assets equal to only a portion of their current liabilities. In addition to other regulations intended to ensure liquidity, banks are generally subject to minimum capital requirements based on an international set of capital standards, known as the Basel Accords.

The definition of a bank varies from country to country. Under English common law, a banker is defined as a person who carries on the business of banking by conducting current accounts for his customers, paying cheques drawn on him/her and also collecting cheques for his/her customers (*United Dominions Trust Ltd v Kirkwood*, 1966).

The business of banking is in many English common law countries not defined by statute but by common law, the definition above. In other English common law jurisdictions, there are statutory definitions of the business of banking or banking business. When looking at these definitions, it is crucial to keep in mind that they are defining the business of banking for the purposes of the legislation, and not necessarily in general. In particular, most of the definitions are from legislation that has the purpose of regulating and supervising banks rather than



regulating the actual business of banking. However, in many cases, the statutory definition closely mirrors the common law. Examples of statutory definitions (Banking Act (Singapore), Section 2, Interpretation):

1. "banking business" means the business of receiving money on current or deposit account, paying and collecting cheques drawn by or paid in by customers, the making of advances to customers, and includes such other business as the Authority may prescribe for this Act;
2. "banking business" means the business of either or both of the following:
  1. receiving from the general public money on current, deposit, savings or other similar accounts repayable on demand or within less than [3 months] ... or with a period of call or notice of less than that period;
  2. paying or collecting cheques drawn by or paid in by customers.

Since the advent of EFTPOS (Electronic Funds Transfer at Point Of Sale), direct credit, direct debit, and internet banking, the cheque has lost its primacy in most banking systems as a payment instrument. This has led legal theorists to suggest that the cheque based definition should be broadened to include financial institutions that conduct current accounts for customers and enable customers to pay and be paid by third parties, even if they do not pay and collect cheques (Tyree, 2003).

During the last century, three different banking theories were dominant at different times (Werner, 2016):

- (1) The current financial intermediation theory of banks says banks collect deposits and then lend them, just like non-bank financial intermediaries.
- (2) The oldest fractional reserve theory in banks says that each bank is a financial intermediary without the ability to generate money, but the

banking system collectively can save money through the process of 'multiple deposit expansion' ('multiplier of money').

(3) A century-old credit creation theory for banks does not consider banks as financial intermediaries who collect deposits for lending, but instead argue that each bank creates a modern credit and money when a bank loan is granted.

### **B. Range of activities**

Activities undertaken by banks include personal banking, corporate banking, investment banking, private banking, transaction banking, insurance, consumer finance, foreign exchange trading, commodity trading, trading in equities, futures and options trading and money market trading.

### **C. Channels**

Banks offer many different channels to access their banking and other services:

1. Branch, in-person banking in a retail location
2. Automated teller machine banking adjacent to or remote from the bank
3. Bank by mail: Most banks accept cheque deposits via mail and use mail to communicate to their customers
4. Online banking over the Internet to perform multiple types of transactions
5. Mobile banking is using one's mobile phone to conduct banking transactions
6. Telephone banking allows customers to conduct transactions over the telephone with an automated attendant, or when requested, with a telephone operator

7. Video banking performs banking transactions or professional banking consultations via a remote video and audio connection.

Video banking can be performed via purpose built banking transaction machines (similar to an Automated teller machine) or via a video conference enabled bank branch clarification

8. Relationship manager, mostly for private banking or business banking, who visits customers at their homes or businesses

9. Direct Selling Agent, who works for the bank based on a contract, whose main job is to increase the customer base for the bank

#### D. Products

##### 1. Retail

- a. Savings account
- b. Recurring deposit account
- c. Fixed deposit account
- d. Money market account
- e. Certificate of deposit (CD)
- f. Individual retirement account (IRA)
- g. Credit card
- h. Debit card
- i. Mortgage
- j. Mutual fund
- k. Personal loan
- l. Time deposits
- m. ATM card
- n. Current accounts
- o. Cheque books

p. Automated Teller Machine (ATM)

## 2. Business (or commercial/investment) banking

a. Business loan

b. Capital raising (equity / debt / hybrids)

c. Revolving credit

d. Risk management (foreign exchange (FX)), interest rates, commodities, derivatives

e. Term loan

f. Cash management services (lockbox, remote deposit capture, merchant processing)

g. Credit services

### 2.1.2. SERVICE QUALITY

Lots of research adapts the findings obtained by Parasuraman and friends and they always connect the variable of service quality to customer satisfaction. Excellent services quality is one factor that can attract consumers to buy. Quality service will determine consumer attitudes in assessing, deciding as well as giving an impression of the services provided. Cronin and Taylor (Altman & Helms, 1995: 45) say, "Service quality is the measure of how well the service level delivered matches customer expectation".

In order to measure service quality, an approach is needed through a determinant of service quality models and support from a product quality determinant model in general. Two models can be used as references, namely the eight dimensions of quality models (Garvin, 1993) and service quality models (Parasuraman et al., 1988). Garvin's model states that product quality is determined by performance, features, reliability,

conformance, durability, serviceability, aesthetics, and perceived quality.

While the service quality models from Parasuraman, Zeithaml and Berry define five dimensions of service quality determinant, namely reliability, responsiveness, assurance, empathy, and tangibles. This model is often called SERVQUAL.

The SEVQUAL model is the result of research conducted on hundreds of companies in various service industries since 1985. In addition to SERVQUAL, Parasuraman and friends also establish five dimensions of advanced behavior as outcomes, namely company loyalty, shifting tendency, willingness to pay more, external responses and internal problems. Lots of research adapts the findings obtained by Parasuraman and friends and they always connect the variable quality of service to customer satisfaction.

Grönross (1984) stated that quality is judged on the individual's perception of the service. According to Grönroos, in order to increase long term quality, customer expectations should be focused, revealed, and calibrated. When customers evaluate service they compare their expectations with what they think they received from the other service providers and if the expectations are met or even exceeded customers believe that the service has high quality.

Customer expectations vary depending on what kind of business the service is connected to. Expectations also vary depending on different positioning strategies of different service providers.

Grönroos (1984) proposed an evaluation of perceived service quality along technical and functional dimensions. Technical quality is referred to the content of service provided to customer. Functional quality is referred to

methods of service execution: treatments reserved to customers by staff, behaviours of the staff and so on; that is, how the service is provided. Grönroos confirmed that quality must be intended as the difference between customer's expectations and the perceived performance. The customer compares his expectations with his experience of the service, perceived through the filter of the company's image. That is, the customer evaluation of service quality is based on a comparison, or confirmation rather than disconfirmation, concerning some related terms already held in mind by the customer at the pre-service stage.

Amy and Amrik (2003) reinforced Grönroos' view that customers compare the expected service quality with what they receive; that is service quality expectation and perception. Amy and Amrik postulate service quality as dependent on two variables: perceived services customer actually receives from organization and expected services from the customer's previous experience or overall perception of the service. When expected service is higher than perceived service, service is said to be of low quality and when service expected is less than perceived service, overall service quality is considered to be high. Customer expectations vary depending on what kind of business the service is connected to. Expectations also vary depending on different positioning strategies of different service providers.

Amy and Amrik (2003) posit that the expectations are influenced by previous experiences of the service provider, competing services in the same industry or related services in different industries. If the customer don't have any previous experience they are more likely to base their

expectations on word of mouth, news stories or the marketing efforts of the company.

Unlike Amy and Amrik (2003) and Grönroos (1984), Ekinci (1999) and Sirakaya (2004) looked at service quality from the perception of angle. Ekinci and Sakaya, thus, defined service quality in four perspectives: excellence, value, conformance to specifications and meeting and/or exceeding expectations. Excellence looks at a services performing its intended purpose.

The tangibles encompass the appearance of the company representatives, facilities, materials, and equipment as well as communication materials. The condition of the physical surroundings is seen as tangible evidence of care and attention to detail exhibited by the service provider (Fitzsimmons & Fitzsimmons, 2001). Davis, et al. (2003) summarize tangibles as the physical evidence of the service.

The reliability and consistency of performance of service facilities, goods and staff is seen as important (Johnston, 1997). This includes punctual service delivery and ability to keep to agreements made with the customer. According to Fitzsimmons and Fitzsimmons (2001), reliability is the ability to perform the promised service both dependably and accurately with error free.

Johnston (1997) describes responsiveness as the speed and timeliness of service delivery. This includes the speed of throughput and the ability of the service to respond promptly to customer service requests, with minimal waiting and queuing time. Fitzsimmons and Fitzsimmons (2001) argue that when the customer is kept waiting for no apparent reason creates unnecessary negative perceptions of quality. Conversely, the ability for the

bank to recover fast when service fails and exhibit professionalism will also create very positive perceptions of quality.

This considers the knowledge and courtesy of employees as well as their ability to convey trust and confidence. The assurance dimension includes the following features: competence to perform the service, politeness and respect for the customer, effective communication with the customer and the general attitude that the server has the customer's best interest at heart (Fitzsimmons & Fitzsimmons, 2001).

According to Chase et al. (2001), empathy is the provision of caring, individualized attention to customers. Fitzsimmons and Fitzsimmons (2001) posit that empathy includes approachability, sensitivity, and effort to understand the customer's needs. Johnston (1997) describes empathy as the ability to make the customer feel welcome, particularly by the contact staff.

### 2.1.3 RISK PERCEPTION

Risk perception is defined as uncertainty faced by consumers when they cannot predict the consequences when making a purchasing decision. There are two dimensions of essential points in the definition of this risk perception, namely uncertainty and consequences. This definition emphasizes that consumers are influenced by the risk they perceive, regardless of whether or not the risk exists.

Risks that do not exist in consumer perception will not affect consumer behavior (Schiffman and Kanuk, 2010).

Risk perception is a feeling of uncertainty over the negative consequences of decisions taken by consumers (Samadi and Yaghoob-Nejadi, 2009). According to Featherman and Pavlov (2003), risk perception is perceived as the level of consumer perceptions of negative results obtained from online



transactions. Perception is an internal factor in the individual. Internal influences are factors in the individual, namely perception, learning, memory, motives, personality, attitudes, and emotions. External influences are factors outside the individual, namely the lifestyle of consumers, social status, culture, values, and influence of reference groups (Hawkins, 1994). Both are other supporting factors that influence consumers in conventional purchases, and have the same principles when associated with an online transaction.

After getting the two meanings above, it can be explained that the notion of risk perception is the process by which a consumer receives, recognizes, and understands the stimuli that come to him, through the senses that exist and gives rise to the feeling that the purchasing decision he has the possibility of bringing consequences not fun.

Transaction risk perception is assessed as the level of customer perception of the negative results obtained when conducting transactions online (Featherman & Pavlou, 2002). Risk has an impact on a person's attitude and behavior in making transactions with other parties. The level of risk is a pivotal factor in shaping customer attitudes and behavior in all kinds of business transactions. A high level of risk will make customers uncomfortable in conducting e-commerce (Kathryn & Mary, 2002).

Risk perception is also important factors that influence consumers to purchase a product. Risk has an impact on a person's attitude and behavior in making transactions with other parties. The level of risk is the ultimate factor in shaping customer attitudes and behavior in all kinds of business transactions. A high level of risk will make customers uncomfortable in conducting e-commerce (Kathryn & Mary, 2002).

Another opinion about perceived risk is that the presumption of risk presents an individual's assessment of the possibilities related to positive or

negative results of a transaction or situation, and a multidimensional form consisting of two types of risk, namely product risk and financial risk in spending online (online shopping) (Bhatnagar et al, 2000). Consumers will tend to see a higher level of risk when buying products through the internet compared to in-store (Naiyi, 2004). In general, there are six perceptions of risk (Nenonen, 2006), namely Financial Risk, Privacy Risk, Performance Risk, Psychological Risk, Time Risk, Social Risk.

Likewise according to Schiffman and Kanuk (2010) supported by Hoyer, MacInnis, and Pieters (2013), it can be concluded that the types of risk are as follows:

1. Physical risk

Physical risk is the presence of risks that threaten the physical or security condition of the purchase of the product/service (example: the property environment is a less safe/dangerous environment). Yeung (2009) is supported by Aslan, Geçti, and Zengin (2013) and Jalilvand and Samiei (2012) using indicators of the possibility of becoming sick and suffering from discomfort when traveling due to food and beverage poisoning. In addition, Jalilvand and Samiei (2012) use these two indicators to measure physical risk variables, namely: hotels are too noisy and there is terror or violence.

2. Performance risk

Performance risk, namely the risk associated with the reality of the performance of the product/service purchased is not in line with expectations (example: the actual property condition does not match the photos displayed on the Airbnb web site and application) Maciejewski (2012) uses poor quality service indicators and is less satisfied with product quality. Jalilvand and Samiei (2012) divide Performance risk into

three indicators, namely: hotels far from tourist attractions, pay more to use facilities, and facilities may not be used.

### 3. Psychological risk

Psychological risk is the risk of the emergence of negative emotions that affect a person's mental state on the purchase of a product/service (example: service users have a feeling of worry about the security of personal information entered on Airbnb's web site and application).

Yeung (2009) using indicators is likely to feel stressed and worried due to the safety risks that might befall consumers. Jalilvand and Samiei also use the indicator (2012), namely consumers are worried about safety and experience excessive worries.

### 4. Financial risk

Financial risk, namely the risk of financial loss for the purchase of the product/service (example: the property ordered is not worth the price paid). In a journal written by Aslan, Geçti, and Zengin (2013) indicators of financial risk are buying a private label brand does not mean wasting money and when buying a private label brand, I will make sure I get the best quality that matches the money I spend. While the indicators used by Jalilvand and Samiei (2012) are bankrupt travel agents, additional costs when visiting tourist attractions, and victims of pickpocketing.

### 5. Time-loss risk

Time-loss risk is the risk of time wasted due to the process of purchasing products/ services (example: a long process, both ordering process, order confirmation, and handling customer complaints). Jalilvand and Samiei (2012) divide the time-loss risk variable into the following two indicators: the possibility of departure delays on the plane and lost baggage. While Yeung (2009) uses an indicator of the possibility of time

and effort that must be spent in buying back and the time lost due to an illness suffered.

#### 6. Social risk

Social risk is a risk due to the purchase of products that are considered inadequate by the consumer social environment, thus threatening the social position of consumers. Yeung (2009) uses an indicator of the likelihood that tourist destination choices are not approved by his traveling companion to measure social risk variables. Aslan, Geçti, and Zengin (2013) supported by Jalilvand and Samiei (2012) measure social risk variables through indicators of purchasing decisions made to increase self-esteem / not make others look down on me.

#### 2.1.4 CUSTOMER SATISFACTION

Customers will be satisfied with the service and product that will be produced if the service or product can meet the needs and expectations of the customer, but if the service or product produced cannot meet the needs or desires of the customer, it will cause dissatisfaction for the customer

The concept of customer satisfaction is one of the concepts that has developed since the 1970s. Oliver (1981) defines satisfaction as an attitude towards the outcome of a transaction. The company's efforts are to provide the best for its customers so that what they expect is following reality so that they are satisfied and will form a positive consumption experience. According to Engel et al., (2010), customer satisfaction is a full-time evaluation where at least the results (outcomes) equal or exceed customer expectations. While dissatisfaction arises when the results obtained, do not meet customer expectations.

Garpešz (2000: 34) stated, "Customer satisfaction can be defined in a simple way as a condition where the needs and expectations of customers can be fulfilled through the products consumed."

According to Cravens (1996), the factors that influence customer satisfaction are:

1. Delivery System

Moving products from producers to consumers or end-users in business usually includes distribution channels from suppliers, manufacturers, and intermediaries. To be able to satisfy consumers, this network must function as an integrated and coordinated unit, where all members understand and respond to the needs and desires of consumers.

2. Product or Service Performance

The performance and superiority of a product or service are significant in influencing consumer satisfaction.

3. Image

Right image or company brand is a competitive advantage that affects the level of customer satisfaction from a positive angle. The formation of a brand image (brand image) and brand value (brand equity) is when consumers get a pleasant experience with the product.

4. Relationship between Price and Value

The buyer wants the value offered by the brand according to the price given, therefore there is a beneficial relationship between price and brand value promoted by the company as one of the unique values as the price. On the other hand, management has decided to compete based on low prices among brands where buyers have set an equal value.

5. Employee Performance or Achievement

The performance of products and delivery systems depends on how all parts of the organization affect consumers, both pleasant and unpleasant. Businesses have found that awareness of consumer desires and employee training helps them fulfill their responsibilities.

## 6. Competition

Weaknesses and strengths of competitors also influence consumer satisfaction and are opportunities to gain competitive advantage.

Oliver (1997) mentions that customer satisfaction a judgment that a product or service feature, or the product or service itself, provides pleasurable consumption-related fulfillment. Satisfaction is not an evaluative state but a process extending across the entire consumption horizon. According to customer satisfaction paradigm, confirmed expectations lead to reasonable satisfaction, positively disconfirmed (exceeded standards lead to high satisfaction) and negatively disconfirmed, that is, underachieved standards lead to dissatisfaction.

Oliver (1980) discusses that satisfaction can be understood as the discrepancy between expectations and perceptions. That is, the customer's perception that compares their pre-purchase expectations with postpurchase perception. Oliver (1997) identifies five different types of satisfaction, which are pleasure, relief, novelty, and surprise. The extent of satisfaction or strength of the pleasure felt depends on: preferences (the ability of offer to meet customer's needs), price (perceived overall value of the offer) and performance (the difference between expected benefits and actual benefits received).

Gibson (2005) divided customer satisfaction into four categories: a cognitive concept to be rewarded for the consumers through payment; evaluation the accord of prior expectation with alternatives of the selection;

affective response after purchase; and, judgments influenced by both emotional responses and cognitive disconfirmation. Oliver (1997) suggests that disconfirmation of expectations is present when the satisfaction mode is pleasure, relief, or surprise. That is, the performance of a product or service meets the expectations of the purchaser. Gibson (2005) viewed satisfaction as an antecedent of attitudinal brand loyalty, with increases in satisfaction leading to increases in attitudinal brand loyalty. Gibson found satisfied customers become repeat purchasers of a product or service and provide positive word of mouth.

From the customer's point of view, service quality is the difference between what they expect and what they perceive to be receiving from the service provider. This difference creates gaps between expectation and the actual service received. Five gaps have been identified. Gap 1 is between customer expectations and management's perception of these expectations. Gap 2 is the difference between management's perception of customer expectations and the translation of those perceptions into service quality specifications. Gap 3 is the difference between the service quality specifications and the delivery of those specifications to the customer. Gap 4 is the difference between the service delivered to customers and the external communications about the service. Gap 5 is the difference between customers' perceptions of actual service experience and the customers' expectations of an ideal service (Parasuraman, Zeithaml, and Berry, 1985).

Although all five gaps may hinder an organization in providing high-quality service, the fifth gap is the basis of a customer-oriented definition of service quality that examines the discrepancy between customers' expectations for excellence and their perceptions of the actual service

delivered. Gaps model recognizes that expectations are subjective and are neither static nor predictable. When the perceptions are greater than expectations, then perceived quality is outstanding; when they are equal, perceived quality is good; but if expectations exceed perceptions, the perceived quality is less than satisfactory. Thus, judgements of high and low service quality depend on how customers perceive the actual service performance in the context of what customers expect (Sadeghi and Bemani, 2011).

## 2.2 THEORY OF MODERATOR AND MEDIATOR VARIABLES

Moderator in general means qualitative variables, including sex, race, class as well as quantitative that affects the direction or strength of the relation between an independent or predictor variable and a dependent or criterion variable. Specifically, within a correlational analysis framework, a moderator is a third variable that affects the zero-order correlation between two other variables. A moderator effect within a correlational framework may also be said to occur where the direction of the correlation changes. An example of a moderator type effect in this context is the demonstration of a crossover interaction of the form that the insufficient justification effect holds under public commitment. On the primary considerations, the moderator variable should be uncorrelated with both the predictor and the criterion (the dependent variable) to provide a interpretable interaction term. Another property of the moderator variable is unlike the mediator predictor relation (where the predictor is causally antecedent to the mediator), moderators and predictors are at the same level concerning their role as causal variables antecedent or exogenous to specific criterion effects. Moderator variables always function as independent variables, whereas mediating events shift roles from effects to causes, depending on the focus of the analysis.



### 2.2.1 Mediator Variables

A systematic search for moderator variables is relatively recent. Psychologists have long recognized the importance of mediating variables. On the general analytic considerations, a given variable may be said to function as a mediator to the extent that it accounts for the relation between the predictor and the criterion.

Mediators explain how external physical events take on internal psychological significance. Whereas moderator variables specify when certain effects will hold, mediators speak to how or why such effects occur (Baron R.M and Kenny D.A. 1986).

### 2.2.2 Conceptual Distinctions Between Moderators

To demonstrate mediation, one must establish strong relations between (a) the predictor and the mediating variable and (b) the mediating variable and some distal endogenous or criterion variable. For research originated toward psychological levels of explanation, mediators represent properties of the person that transform the predictor or input variables in some way. Group level mediator constructs the various such role conflict, norms, groupthink, and cohesiveness have long played a role in social psychology. Moreover, with the increasing interest in applied areas, there is likely to be an increasing use of mediators formulated at a broader level of analysis. In addition, whereas mediator oriented research is more interested in the mechanism than in the exogenous variable itself for example dissonance and personal control mediators have been implicated as explaining an almost unending variety of predictors, moderator research typically has a greater interest in the predictor variable per se. However, whether a given moderator oriented investigation is firmly committed to a particular predictor is likely to vary widely.

Although a pragmatic predictor orientation is typical in industrial psychology, where the predictor is often a test, in social psychology moderators are often as theoretically derived as mediators (Baron R.M and Kenny D.A. 1986).

### 2.2.3 Income and Interest Rate as Moderating Variables.

Other variables may influence the direct relationship between the independent variables and the dependent variable. One of them is the moderating variable, which is the type of variables that strengthen or weaken the direct relationship between the independent variable and the dependent variable. Moderating variable is a type of variable that influences the nature or direction of relations between variables. The nature or direction of relations between independent variables and the dependent variables is likely positive or negative in this case depending on the moderating variable. Therefore, the moderating variable is also called the contingency variable. The moderator variable is a third party variable that modifies the relationship between the independent variable and dependent variable. The moderator variable aims to measure the strength of the relationship between the variable and the dependent variable.

Income is a description of the level of a person's ability to meet the material needs in a specific time unit that is commonly used usually in one month.

This level of income is used with a standard of living that generally applies to the community concerned. Community income is often classified into several groups, namely low-income communities, middle-income people and high-income people.

This community income directly affects the level of health, education, moral life and a sense of self-worth or social status than other people who have different income groups. Revenue is one problem that has a central role in meeting daily needs.

Community income is one of the crucial factors that determine the level of community welfare is one thing that is subjective, meaning that everyone has a different mindset, purpose and way of life, thus giving different values to the factors that determine the level of welfare. According to Muana (2001: 15) states that individual income is aggregate income originating from various sources that are received by a person or household. Nopirin (1992: 314) states that income from

the community is the result of sales from the factors of production owned in the production sector and sectors that apply in the market.

The increase in people's living costs will reduce their real income, because their income has been absorbed by rising prices. With the smaller residual income after being reduced, the bank will increase the bank's interest rate. If the interest rate given by the bank to the customer is high, then the interest rate given by the borrowers is also high. Income is all income received by people in economic activities in a period. Factors affecting income include employment and position, education, years of service and number of family members. Important factors that influence deposits, for example, is the level of income, where the higher the income, the greater the level of savings created by the community. This means that there is a positive influence between income and the amount of savings. J. M Keynes (1963) says that income is important for savings and interest rates, because interest rates depend on money supply and demand, and do not depend on savings and investment. J. M Keynes also argues that community income is used in part for consumption and the other part is used for saving. Income certainly greatly influences the amount of savings deposited by the public in banking institutions, in the sense that the greater the income, the greater the level of community savings, if the income increases in number then the public funds collected by banking institutions have a tendency to increase.

Business savings is part of the profits reinvested so that it is not shared with shareholders. Savings from the business world and individual household savings are called community savings. In general, the level of community savings is determined by the ability and willingness of the community to save and opportunities that are open to them to place the savings in formal financial institutions. Finally, all this will cause an increase in savings. Since human civilization began to use money, especially after the use of paper money, it has

been realized that money can cause problems in economic activity. If interest rates change arbitrarily, formed at any level provided that at that level savings equals investment, saving action do not require any qualifications to the quantity theory which is seen as a theory of total demand.

Definition of interest rates (interest rate) according to Samuelson and Nordhaus (1998: 482) are as follows: the interest rate is the amount of interest paid per unit of time. In other words, people must pay for the opportunity to borrow money. The cost of borrowing money, measured in dollar per year per dollar borrowed, is the interest rate. Whereas according to Bernstein and Wild (1998: 292) Interest is composition for use money. It is the excess paid or collected beyond the money (principal) borrowed or loaned. Determination of interest rates must pay attention to the inflation rate that occurs. This is expressed by Fisher in Mankiw (2003: 86) that: "the nominal interest rate will change for two reasons namely because of the real interest rate changes or because the inflation rate changes to the nominal interest rate is the sum of the real interest rate plus the inflation rate. In daily banking activities, there are two kinds of interest given to customers, namely:

1. Interest Deposits, namely interest given as a stimulus or remuneration for customers who save their money in a bank. Deposit interest is the price the bank must pay to its customers. Example: services.
2. Interest on loans, namely the interest given to borrowers or the price that must be paid by the loan customer to the bank. Example: credit interest.

Interest is the payment to the capital borrowed from other parties; it is usually expressed as a percentage of borrowed capital, such as 10 percent, 12 percent or 15 percent. Interest is the price/remuneration for money or funds lent.

The determination of interest rates is influenced by several factors including funding needs, competition, government policy, desired profit target, period, quality

assurance, company reputation, competitive products, good relations and party guarantees third.

The interest rate dramatically affects the community to be able to increase savings. This can be observed in the daily lives of people who are always looking for information about the interest rates created in their money markets knowing that the highest interest rate is that people will reduce their spending to consume to increase their savings because people have hopes that their money will increase in the following month or year than they have to save money at home.

Previous studies about income and interest rate as moderating variable have been done in some different area and topics by some researchers namely Obura and Anyango (2016) and Razak et al. (2016).

## 2.2.4 INTEREST RATE

### A. Definition

Interest is dependent on money loans, which is usually expressed as a percentage of money lent. The interest rate is the interest rate expressed in percent, a certain period (monthly or per year). The interest rate is divided into two, namely:

- 1) The nominal interest rate is the rate that can be observed by the market.
- 2) Real interest rates are concepts that measure the real interest rate; the real interest rate equals the nominal interest rate minus the expected inflation rate.

### B. Interest Rate Theory

#### 1) Classical Theory

Savings, savings, according to classical theory, is a function of the interest rate, the higher the interest rate, the higher the public's desire to save funds in the bank.

This means that at a higher interest rate, people will be compelled to sacrifice or reduce spending to consume to increase savings. While interest is "price" from (use) loanable funds, or can be interpreted as funds available for lending or investment funds, because according to classical theory, interest is "price" that occurs in the investment market.

Investment is also the goal of the interest rate. The higher the interest rate, the desire to invest also gets smaller, the reason is one the entrepreneur will increase his investment expenditure if the expected profit from the investment is greater than the interest rate that must be paid for the investment fund as a cost of capital (cost of capital). The lower the interest rate, the businessman, will be encouraged to invest because the cost of using the funds is also smaller, the interest rate in balance (meaning no up and down drive) will be achieved if the desire to save the community is the same as the entrepreneur's intention to invest.

## 2) Keynes's theory challenges interest rates

Keynesian theory states that the interest rate is determined by demand and supply of money, according to this theory there are three motives, why someone is willing to hold cash, namely the motive of transactions, just in case and speculation.

These three motives are the source of the demand for money given the term liquidity preference, the demand for money according to Keynes's theory is based on the conception that most people want to remain liquid to fulfill these three motives. Keynesian theory emphasizes the direct relationship between the willingness of people to pay the money price (interest rate) and the element of demand for money for speculation purposes, in this case a large demand if the interest rate is low and demand is small if interest is high.

## C. Loanable Market funds.

This loan fund market explains the interaction between loan fund demand and supply which ultimately affects the loan amount and interest rate. The interest rate is the price that must be paid for the use of loanable funds. The rationale for the emergence of an offer for loanable funds is originating from the community who set aside a portion of their income to save. It can be explained here that if in a certain period there are community members who receive income in excess of what they need for their consumption needs during this period, then they are a group of savers. Together or the entire amount of their savings forms an offer for loanable funds. If the interest rate is low, loan demand will increase because there will be more investment, working capital and consumption assuming *ceteris paribus*, and vice versa. Demand for loan funds comes from domestic businesses, consumers and the government as well as loans made by foreigners in the domestic market. The loan supply curve is explained by (b), has a positive slope, moves from the lower left to the right to the right which illustrates the positive relationship between the interest rate and the loan offer. The higher the interest rate, the more people will be interested in saving money so that the more funds can be channeled in the form of loans assuming *ceteris paribus*, and vice versa. Loan offerings come from the sum of domestic savings, retained earnings, credit creation by the banking system, loan funds from foreign institutions and individuals in the domestic market.

According to Kasmir, (2008) said that bank interest can be interpreted as reciprocal services provided by banks based on conventional principles to customers who buy or sell their products. Interest can also be interpreted as the price to be paid to customers (who have deposits) with the price to be paid by the customer to the bank (the customer who gets the loan). Factors that affect the size of the determination of interest rates (loans and deposits) are as follows:

#### 1. Funding needs

If the bank is short of funds, while the loan application is increasing, then what is done by the bank is that the funds are quickly met by increasing deposit rates.

Increasing deposit interest will automatically increase loan interest

### 2. Competition

In obtaining deposit funds, then in addition to the most important promotional factors, banks must pay attention to competitors

### 3. Government Policy

Both deposit interest and interest on our loans must not exceed the interest set by the government.

### 4. The expected price of profit

In accordance with the desired target if the desired profit is large, then the interest is large and vice versa.

### 5. Duration

The longer the loan period, the higher the interest rate, this is due to the possibility of future risks.

## 2.2.5 INCOME

Keynesians have stressed the relationship between income, output, and expenditure. Since transactions are two-sided—in that one person's income is another person's expenditure (Keynes, 1963).

Customer income is very affected purchase decision. Customers who have high income generally they also have high education so that the decision is to depend on the information they get (Homburg and Giering, 2001). Customers who have high income have less limit than a customer with low income so that the customer with high income tend to be loyal to the company (Yusuf, et al. 2015.) which shows that an income is affected relations between customer satisfaction, loyalty and switching intention. Based on the explanation above, income has a moderating



effect on the relationship between customer satisfaction, customer loyalty and intention to switch. Yusuf, et al. 2015.

Homburg and Giering said that the income of a person is assumed to have a substantial impact on choice decisions. In a general sense, it is assumed that people with higher income have achieved a higher level of education. Thus, they usually engage more in information processing prior to the decision process, and their choice is essentially based on the evaluation of the information given to them.

Due to their cognitive capacities, they are supposed to feel more comfortable when dealing with and relying on new information inputs. Hence, income is suggested as another demographic characteristic that might affect the consequences of (dis)satisfaction (2001).

### **2.3 Influence of Income Moderation on Customer Satisfaction, Customer loyalty and Shift Intention.**

Effect income moderation influence on the relation of customers satisfaction toward customers loyalty only. Based on Yusuf study, income has proven to be a moderation variable with customers satisfaction toward customers loyalty. Customers' loyalty will be stronger if the customer's satisfaction increases.

This research finding unlike with Yusuf, et al. (2015). which found that ultimate does not moderate the relation between customers' satisfaction and customers' loyalty. However this finding does support Homburg and Giering's (2001). They state that relation between customers' satisfaction and customers' loyalty is lower for people who have high income compared with those who have lower income.

The argument given for this finding is that financial risk related to unqualified product purchasing is lower for people who have a high income. General customers with low income still prefer to choose the cheap cost for internet and social media by using more than one provider, on the other hand, those with high

income in determining additional provider, they tend to consider about internet quality and access speed. Yusuf, et al. 2015.

## 2.4 PREVIOUS STUDY

There have been several previous studies that have researched service quality, risk perception and customer satisfaction, among them are:

### 1. Service quality on customer satisfaction

- a. Study by Arthur et al. (2016) with the title "The impact of Service quality on customer satisfaction in Obuasi Electricity Company of Ghana (ECG) -The customers perspective" found that service quality had a negative impact on customer satisfaction. The study adapted the modified version of SERVQUAL model as a tool to measure the variables of the study. The study used convenience sampling method to select customer of ECG. The questionnaires were distributed and collected for analysis using SPSS and Microsoft Excel Software. Simple Regression was used to test for the impact of service quality on customer satisfaction.
- b. Study by Paul et al. (2015) with the title "Impact of service quality on customer satisfaction in private and public sector banks" found that assistance to the customer, appearance, and follow up are negatively associated with customer satisfaction. With the help of forward stepwise regression, the authors explain how a variety of variables are both negatively and positively influencing customer satisfaction. The authors collected data from 500 respondents in India; 250 of which were customers of private sector banks, and 250 of which were customers of public sector banks. The authors had a response rate of 65 percent.
- c. Study by Wafaa (2014) with the title "A Study of the Relationship between Banking Service Quality and Customer Satisfaction in Algerian Public

Banks” confirm the existence of a positive indirect impact of banking service quality, financial benefits and Social bonding on customer satisfaction. This study apply a Structural Equation Modeling (SEM) technique to study the different relationships between the proposed variables. A questionnaire is, then, developed and administered to a sample of 650 Algerian public bank customers in the Tlemcen region.

d. Study by Andreany and Wijayanti (2014) with the title “The Influence of Service Performance on Customer Satisfaction of Bank Central Asia in Surabaya” found that Good services have a very strong influence on its customer satisfaction. Among the five dimensions, responsiveness has the biggest influence on customer satisfaction. This study use a quantitative method with multiple linear regressions to prove the influence of service performance on customer satisfaction.

e. Study by Melaku (2015) with the title “Impact of Service Quality on Customer Satisfaction: The Case of Bank of Abyssinia” found that all the service quality dimensions have positive and significant relationship with customer satisfaction. This study identify the relationship using SERVPERF model. Quantitative means of data collection method is employed to collect the data through questionnaire. Proportionate and disproportionate stratified sampling technique is used to select the sample size and a sample of 399 bank customers are taken to undertake the study. The data collected from the questionnaire were analyzed using statistical tools such as mean, correlation, and regression analysis VIA SPSS Version.

f. Study by Naeem, et.al. (2009) with the title “Service Quality and Its Impact on Customer Satisfaction: An Empirical Evidence from the Pakistani Banking Sector” found that the results of the regression analysis indicated that service quality was proved to be a strong predictor of customer

satisfaction. Comparative research was designed to investigate the impact of service quality on customer satisfaction. A sample of two hundred was drawn on the basis of simple random sampling. Various constructs of SERVQUAL were adopted and used for data collection. Data were analyzed through SPSS version 14.

- g. Study by Alkayed, Waiel (2014) with the title "Service Quality and Customer Satisfaction in Cairo - Amman bank- in Jordan" found that service quality is an important antecedent of customer satisfaction. This is consistent with results of past studies reporting a significant positive association between the two variables of service quality and customer satisfaction. This study also offers important implications for practice: utility of good quality in the maintenance of sustainable business practices and customer satisfaction, thus acknowledging customers as an important stakeholder group. This study utilises a quantitative instrument. A random sample of banks' customers (n=190) was recruited from the selected Cairo-Amman banks for research participation.
- h. Study by Chang, et.al. (2017) with the title "The Relationship between the Efficiency, Service Quality and Customer Satisfaction for State-Owned Commercial Banks in China" found that bank's service quality has a positive impact on customer satisfaction. In the case of banks that are located in areas with high economic levels, customer satisfaction is lower than that of banks in lower regions. This is because customers in high economic level regions have higher expectations for service quality and it leads to lower customer satisfaction. In this study, the data used for the analysis was obtained from the 2015 Chinese Banking Statistics

## 2. Risk perception on customer satisfaction

a. Study by Johnson (2008) with the title "Customer satisfaction, perceived risk and affective commitment: an investigation of directions of influence" found that there is less support for a model in which satisfaction reduces perceived risk. This study used structural equation models of data from a survey to customers of a performing arts organization (sample size=401) to test the hypotheses.

b. Study by Ghotbabadi, et.al (2016) with the title "The Relationship of Customer Perceived Risk and Customer Satisfaction" found that Service quality, relationship marketing, and brand image are related with customer's perceived risk. Strong negative correlation has been found between the perceived risk and customer's satisfaction. Research object of this study is airline industry and data collected from one international airport. Hypotheses are tested on questionnaire data on 776 passengers of Iranian airlines in an International Airport. The data was then analyzed by Structural Equation Modeling.

c. Study by Hovens (2013) with the title "Does Customer Perceived Risk Mediate the Relationship Between Service Guarantees and Customer Satisfaction?" found no support for perceived risk to influence customer satisfaction. This study is explanatory. The questionnaires were first tested by a panel of ten experts to assess whether there were misunderstandings or ambiguities of expressions to check for content validity. Reliability of the measures was conducted via a pilot study among HGV road freight transport customers to deal with matters as instructional clarity, item clarity, and relevance. Data were gathered through an online survey, using Survey Monkey. A total of 60 valid responses were included in the data analysis using structural equation modeling involving partial least squares (PLS). To ensure the appropriateness of the measurement

model, the unidimensionality, reliability and validity of the scale are assessed. Both Cronbach's Alpha and factor loadings are used to test the unidimensionality of the model. Significance is verified via bootstrapping by which parameter estimates are obtained by generating subsamples with replacement from the original data.

### 3. Income and Interest Rate in the Study of Customer Satisfaction

- a. Study by Islam et.al (2013) with the title "Customers' Satisfaction about Services Quality & Services Provided by BASIC Bank Ltd." found that customers are neutral in rate of interest. In this study, the SERVPERF scale is used to measure to service quality. 200 respondents have been taken for this study. Study instrument is questionnaire and 5 point likert scale is used.
- b. Study by Sofiyanto et.al. (2016) aims to analyze the influence of location, interest rates, and quality of service to customer satisfaction mortgages. Based on the results of data analysis, there is a significant positive effect between interest rates on customer satisfaction, there is a significant positive effect between service quality on customer satisfaction mortgages, and there is a significant positive effect between locations, the interest rate and quality of service together on customer satisfaction mortgages. Samples taken a number of 100. The statistical analysis was conducted on the multiple linear regression and hypothesis testing.
- c. Study by Sivesan (2013) with the title "Personal Demographical Factors and their Influence on Customer Satisfaction from Customer Perspective" revealed that there is no significant difference between the personal demographic factors such as gender and marital status but there exists significant difference among age, income and education level on Customer Satisfaction. Data were collected through closed ended questionnaire. This study limited to customer of private commercial banks in Jaffna district.

Therefore, systematic random sampling method was used to choice respondents.

- d. Study by Dölarslan (2014) with the title “Assessing the effects of satisfaction and value on customer loyalty behaviors in service environments” found that customer satisfaction was stronger those customers at the lower range of income. The research technique used a face-to-face questionnaire. A total of 780 questionnaires were collected and used in this study after excluding 80 incomplete forms. Variables were tested using structural equation modeling and a multi group moderation test was used.

From those many previous study we can see that there are several different finding from some researchers who study in the same topic. Study about service quality on customer satisfaction found positive by Wafaa (2014) Andreany and Wijayanti (2014) Melaku (2015) Naeem, et.al. (2009) Alkayed, Waiel (2014) and Chang, et.al. (2017), but found negative by Arthur et al. (2016) and Paul et al. (2015). Study about risk perception on customer satisfaction found less support by Johnson (2008), found negative correlation by Ghotbabadi, et.al (2016), and found no support by Hovens (2013). Study about interest rate and customer satisfaction found neutral by Islam et.al (2013), but found significant positive effect by Sofiyanto, Ifik et.al. (2016). Study about income and customer satisfaction found strong by Dölarslan (2014) and found exists significant by Sivesan (2013).

### CHAPTER III

## RESEARCH METHODOLOGY

### 3.1. CONCEPTUAL FRAMEWORK

Quality service in a bank can create satisfied customers who will eventually be loyal to the company. Quality services on a basis can be formed from several essential aspects including; access, credibility and reputation, reliability, responsiveness, effectiveness and assurance and facilities and equipment. According to Kotler & Keller (2009: 46), namely "Customer satisfaction is the outcome of the feel of buyers who have experienced a company that has fulfilled expectations." The point is that it involves the components of expectations and performance / perceived results. In general, customer expectations are estimates or customer beliefs about a product both goods and services, while the performance or what he received after consuming the products he bought. For that management must have the same perception with the customer so that results are obtained that exceed or at least equal to customer expectations.

This situation is the same as stated by Garpez (2000: 34) "Customer satisfaction can be defined in a simple way as a condition where the needs and desires of customers can be fulfilled through the products consumed."



### 3.2. RESEARCH FRAMEWORK

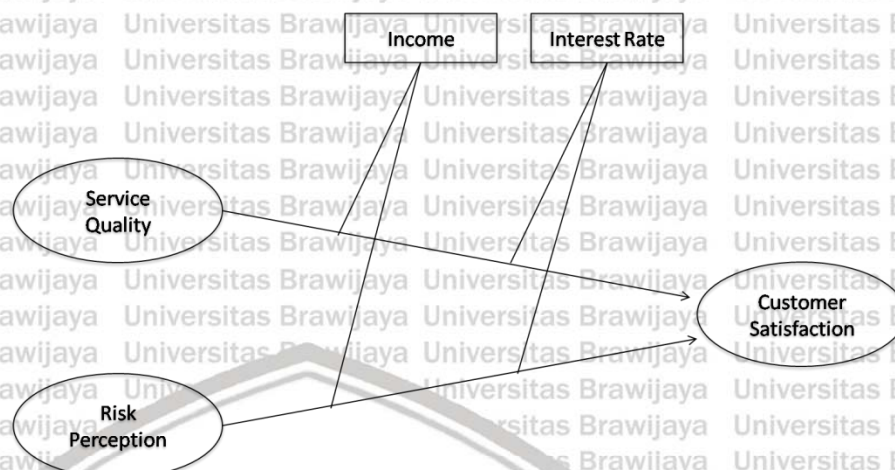


Figure 3.1. Research Framework

#### 1. Dependent Variable

- Services Quality
- Risk Perception

#### 2. Independent Variable

Customer Satisfaction

#### 3. Moderating Variable

- Income
- Interest Rate

### 3.3. HYPOTHESES

Based on the conceptual framework and research framework that has been described, then the research hypotheses in this study are as follows:

H1: Service quality has any effect on customer satisfaction

H2: Risk perception has any effect on customer satisfaction

H3a: Income moderates the effect of service quality on customer satisfaction

H3b: Income moderates the effect of risk perception on customer satisfaction

H4a: Interest rate moderates the effect of service quality on customer satisfaction

H4b: Interest rate moderate the effect of risk perception on customer satisfaction

### 3.4. RESEARCH DESIGN

This research applied a quantitative approach, and it would be Explanatory research. Explanatory research is the one that aims to analyze the relationships between variables and how one variable affects the other (Kotler, et al., 2006).

### 3.5. RESEARCH LOCATION

The location of the research will be in a Country of Libya. It will be a study in a specific name in bank AL JUMHORIA because it is the largest and the leading bank in Libya. Jumhouria Bank is also the largest employer in the banking sector in Libya. Customer satisfaction in this bank will be essential to maintain the company's position in the market. Banks also have to understand and measure its services quality and studies the expectations and perceptions of customers to the quality of the service provided by the banks and technological development, which led to competition and challenges as a result of the great progress of banking services. The subjects of this study will be for all customer who used to deal with this bank.

### 3.6. POPULATION AND SAMPLE

#### 3.6.1. POPULATION

The population is the area consisting of the process of characteristics sets by the researcher to extract in conclusion (Hair, 1998). In this study, population referred to all customers in Jounhuria bank in Libya.

#### 3.6.2. SAMPLE

A sample is a small collection of units from a population used to determine truths about that population (Field, 2005). This study used non-probability sampling technique. Non-Probability Sampling is a sampling technique not randomly selected. Researchers use purposive sampling, where sampling was only based on the consideration of the researcher. This study uses this technique because the researcher only choose customer who are saving money in Jounhuria bank, which is knows and feels about service quality, interest rate, and risk perception, as the topics of this study. The researcher will take 120 samples

### 3.7. RESEARCH VARIABLES

This research has three variables of the study, namely: Bank service quality (X1), Customer Risk Perception, (X2) Independent variables, and one endogenous dependent variables Customer satisfaction (Y1) with the moderating variables of Income (X3) and Interest Rate (X4). Details of the following indicator variables for each variable are presented in the following table:

Table 3.1. Research Variables Classification

NO	Variable		Indicator
	Variable Name	Notation	Indicator Name
1.	Bank Service Quality	X 1	a) Reliability b) Responsiveness c) Assurance d) Empathy e) Tangibles
2.	Customer Risk Perception	X 2	a) Physical risk b) Performance risk c) Psychological risk d) Financial risk e) Time-loss risk f) Social risk
3.	Customer Satisfaction.	Y1	a) Delivery System b) Product or Service Performance c) Image d) Relationship between Price and Value e) Employee Performance or Achievement f) Competition
4.	Income (X3)		a) High Income b) Middle Income c) Low Income
5.	Interest Rate (X4)		a) 10 % b) 12 % c) 15 %

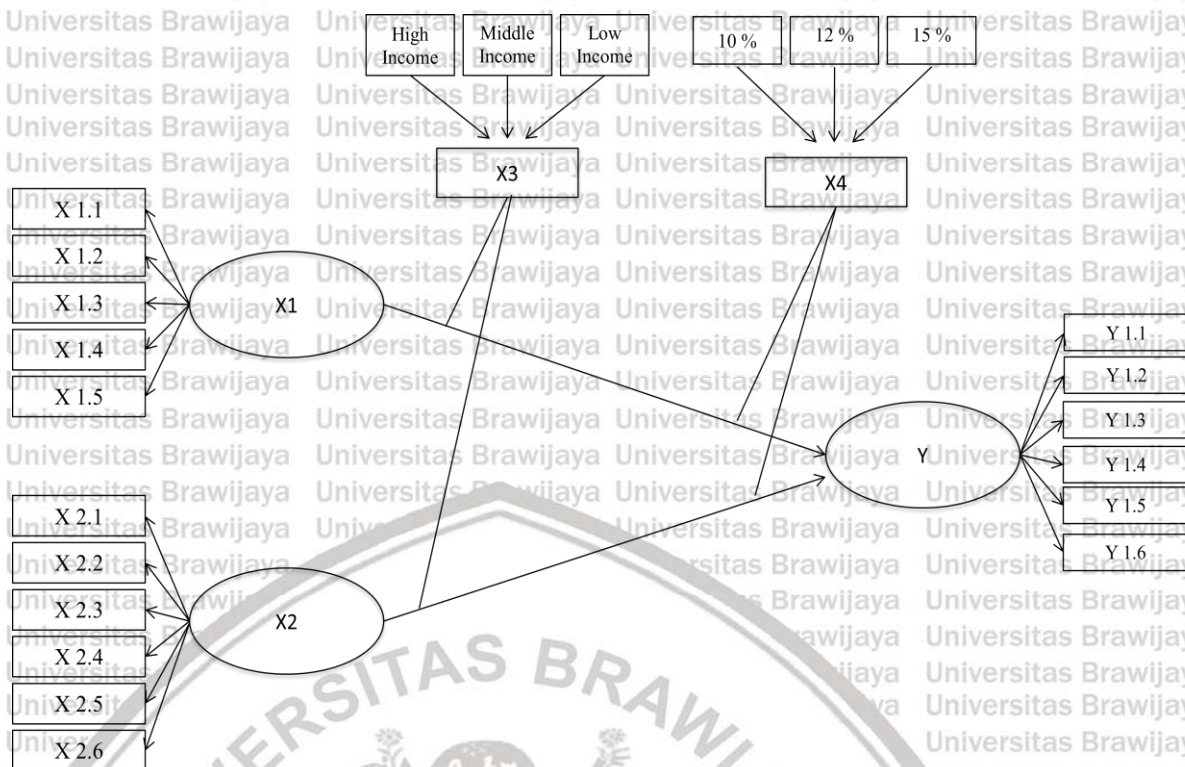


Figure 3.2. Research Model

Note:

X1 : Service Quality

X 1.1 : Reliability

X 1.2 : Responsiveness

X 1.3 : Assurance

X 1.4 : Empathy

X 1.5 : Tangibles

X2 : Risk Perception

X 2.1 : Physical risk

X 2.2 : Performance risk

X 2.3 : Psychological risk

X 2.4 : Financial risk

X 2.5 : Time-loss risk

X 2.6 : Social risk

X3 : Income

X4 : Interest Rate

Y : Customer Satisfaction

Y 1.1 : Delivery System

Y 1.2 : Product or Service Performance

Y 1.3 : Image

Y 1.4 : Relationship between Price and Value

Y 1.5 : Employee Performance or Achievement

Y 1.6 : Competition

Based on the research model, there are three sets of equations which can be used to describe the relationships between the different parameters of the research model. The first set is for outer model which explains the relationship among indicators and latent variable. It relates the indicators of the independent variables (x) to their associated measurement error ( $\delta$ ) and the latent independent variables ( $\xi$ ). The equations of reflective outer model in independent are as follow:

$$X_{1,1} = \lambda_{x1} + \delta_1$$

$$X_{1,2} = \lambda_{x1} + \delta_2$$

$$X_{1,3} = \lambda_{x1} + \delta_3$$

$$X_{1,4} = \lambda_{x1} + \delta_4$$

$$X_{1,5} = \lambda_{x1} + \delta_5$$

$$X_{2,1} = \lambda_{x2} + \delta_1$$

$$X_{2,2} = \lambda_{x2} + \delta_2$$

$$X_{2,3} = \lambda_{x2} + \delta_3$$

$$X_{2,4} = \lambda_{x2} + \delta_4$$

$$X_{2,5} = \lambda_{x2} + \delta_5$$

$$X_{2,6} = \lambda_{x2} + \delta_6$$

Finally, the last set deals with the relationship between the dependent ( $\eta$ ) and independent ( $\xi$ ) variables:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_1 X_3 + \beta_6 X_1 X_4 + \beta_7 X_2 X_3 + \beta_8 X_2 X_4 + e$$

### 3.8. UNIT OF ANALYSIS

According to Malhotra (2007,215), the unit of analysis is the individual (Customer), the banks as well as other parties who respond to service or research actions carried out in the research. So, this study applied individual unit analysis. Researcher select customers who used to deal with the bank like saving money, transfer money, lending money and many other transactions with Al Joumhuria bank.

### 3.9. DATA COLLECTING METHOD

Data Collecting Method in this research is the Questionnaire. Also, it will be the primary tool in data collection. The measurement of the question is (Likert scale) considering five options for the answer, namely:

Table 3.2. Likert Scale

Option	Score
Strongly Agree	5
Agree	4
Natural	3
Disagree	2
Strongly Disagree	1

### 3.10. DATA ANALYSIS

In quantitative research, the process of implementation in a linear fashion begins from the background of the research problem, formulation of the problem, then formulation of the hypothesis, preparation of subject instrument, data collection and analysis of data, finally the research result.

#### 3.10.1. MODEL OF ANALYSIS

This research used PLS to analyze data according to the conceptual framework and to do the estimates in the measurement model. PLS is the method of choice to success factor studies in marketing (Albers, 2009). The PLS methodology had also achieved an increasingly successful mission in practical research in international marketing, which may represent an appreciation of distinctive methodological features of PLS.

Data analysis using PLS (Partial Least Square) analytical models with the help of computer program package SmartPLS (Solimun, 2002), because of:

1. The Analysis Model tiered and structural equation models meet recursive models.
2. Measurement of variables not only reflective indicators such as those in SEM, but also formative indicators. In this research, good corporate governance variables measured with reflective indicators, while the other variables measured with formative indicators.

The analysis steps that using PLS are as follows:

1. Step One: Designing Structural Model (inner model)

The design of the structural model on the relationship between PLS latent variables based on the formulation of the problem or the research hypothesis.

2. Step Two: Designing Measurements Model (outer model)



Outer model in this research is reflexive and formative, refer to the operational definition of variables, according to the research instrument design process

### 3. Step Three: Constructing the path diagram

When steps one and two are already done, so that the results are easier to understand, the design results of the inner model and outer model, then expressed in terms of the path diagram.

### 4. Step Four: Path diagram conversion into Equation System

a. Outer model is the specification of the relationship between latent variables with the indicator, which is also called outer relations or measurement models with construct characteristics with the manifestation variables

b. Inner model is the specification of the relationship between latent variables (structural model), also called the inner relations, describes the relationship between latent variables based on the research substantive theory.

### 5. Step Five: Estimation

Method of parameter estimation in PLS is the least-squares method.

The process of calculation is done by iteration, where iteration will stop if it has reached the condition of convergent.

### 6. Step Six: Goodness of Fit

Structural model or the Inner model was evaluated by looking at the percentage of variance that explained by looking at the  $R^2$  for the dependent latent constructs, then calculated Stone-Geisser Q Square test value with the formula:

$$Q^2 = 1 - (1 - R_1)(1 - R_2) \dots (1 - R_p)$$

## 7. Step Seven: Hypotheses Testing

Hypotheses testing ( $\beta$ ,  $\gamma$ , and  $\lambda$ ) conducted by Bootstrap resampling method developed by Geisser&Stone. The statistical test used was t or t-test statistic, with a statistical hypothesis as follows:

- Statistical hypothesis for the outer models are:

$$H_0:\lambda_i=0 \text{ against } H_1:\lambda_i\neq 0$$

- Statistical hypothesis for inner model: the effect of exogenous latent variables to endogenous is:

$$H_0:\lambda_i=0 \text{ against } H_1:\lambda_i\neq 0$$

- Statistical hypothesis for inner model: the effect of endogenous latent variables to endogenous is:

$$H_0:\beta_i=0 \text{ against } H_1:\beta_i\neq 0$$

Application of resampling methods does not require the assumption of a normal distribution and does not require a large sample (recommended minimum sample 30). Testing is done by t-test and p-value. If the value of the T-Statistic  $\geq 1.96$  (in Smart PLS, the value of T-Statistic is an absolute value and number 1.96 is the value of t on the statistics t table) and p-value  $< 0.05$  (alpha 5%, is the error rate tolerated in the research), it was concluded that the hypothesis that tested was significant, and vice versa if the value of the T-Statistic  $< 1.96$  and p-value  $> 0.05$ , then conclude the hypothesis that being tested is non-significant. If the test results on the significant inner model, it means that there is a significant effect of one variable to another variable

The assumptions underlying the PLS model is the relationship between the latent variables is linear. The linearity assumption is the

assumption that requires influence modeling linear form. Linearity test, to check it can be done by creating a scatter diagram or curve fit approach (on Statistical Product for Social Science (SPSS) software). References were used: (1) a significant linear model (linear model sig<0.05), (2) non-significant linear model and all models may also non- significant (sig linear models>0.05, and in addition to the linear model's sig> 0.05).

### 3.10.1.1 INNER MODEL (STRUCTURAL MODEL)

Inner models describe the relationship between latent variables based on substantive theory. Also, the model will test the Hypothesis to measure if accepted or accept (Ho). The limit to accept the Hypothesis is clear with ( $\alpha$ )=5% or 0.05. It is resulted in t table value of 1.96. Therefore:

- If the t-statistic value is more than t-table value [ > 1.96] then Ho is rejected while Ha accepted.
- If the t-statistic value is less than t-table value [ < 1.96] then Ho is accepted while Ha rejected.

### 3.10.1.2 OUTER MODEL (MEASUREMENT MODEL)

This model will be used to know validity and reliability, which bridge indicator and its latent variable. It needs to be measured by Convergent and Discriminant.

### 1. Convergent Validity

Convergent validity measures the value of correlation within the construct and latent variable. A valid correlation is equal to the value of  $>0.5$  (Wegelin,2000).

### 2. Discriminant Validity

The measurement model is examined based on cross loading calculation with the construct. If the construct in each indicator is more significant than any other value, then latent construct of its indicator is better than other constructs. If the AVE value higher than other correlation values, then this will have resulted in a good discriminant validity. According to (Wegelin,2000), AVE more than 0.05 is higher recommended.

## 3.11. VALIDITY AND RELIABILITY TEST

### 3.11.1. TEST OF VALIDITY

The validity is to measure what is to be measured, and no matter if the result was valid or invalid, what matters is that the test be valid in relation to targets of the researcher. Test of validity of this research was administered by doing a bivariate correlation between each score and indicator with a total construct score.

### 3.11.2. TEST OF RELIABILITY

Reliability in the dictionary is the ability to be relied on or depend on, as for accuracy, honesty, or achievement. in this research will test to determine the extent of measuring instrument whether it is reliable or unreliable.

### 3.11.3. HYPOTHESIS TEST

Based on research paradigms and hypotheses that have been described in the previous section, that this research consisted of three exogenous variables: Bank service Quality (X1), Risk perception (X2), with the moderating variable of Income and Interest Rate and one endogenous dependent variables: Customer satisfaction (Y1). To analyze the effect of exogenous variables on the endogenous variables used PLS analysis. In full proposed.



**CHAPTER V**

**RESULTS & DISCUSSION**

**5.1 Description of Respondents.**

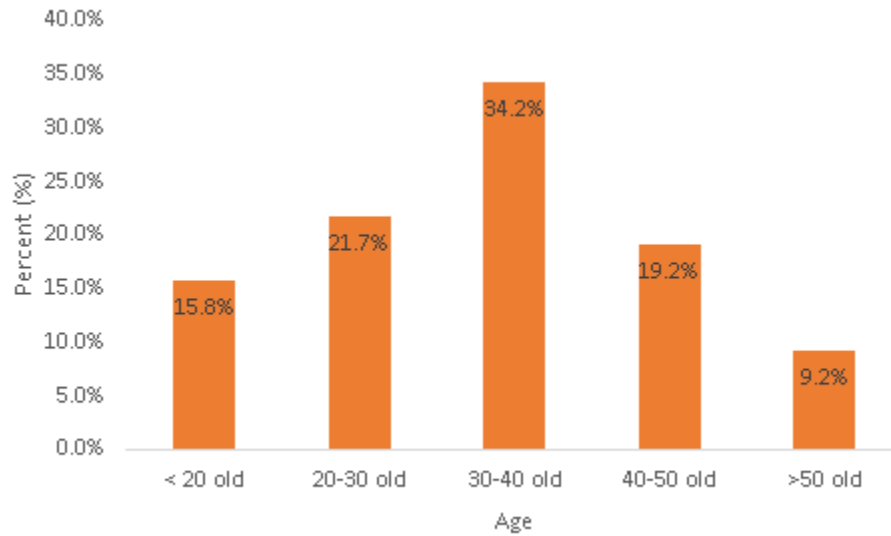
Descriptive analysis is intended to describe the frequency distribution of respondents' answers. Based on the results of research conducted on 120 respondents through questionnaires, an overview of age, sex, Level of Education and their income/month was obtained. The results of the frequency distribution recapitulation collected from the questionnaire about the characteristics of respondents can be seen in the following table.

**5.1.1 Age**

**Table 5.1 Frequency table of age of respondents**

Age (years)	Frequency	Percentage (%)
< 20 old	19	15.8%
20-30 old	26	21.7%
30-40 old	41	34.2%
40-50 old	23	19.2%
>50 old	11	9.2%
<b>Total</b>	<b>120</b>	<b>100%</b>

The age of the respondents according to the results of research conducted on 120 respondents showed that there were as many as 19 people (15.8%) aged less than 20 years old, 21.7% aged between 20-30 years old, 34.2% aged between 30-40 years old, 19.2% aged between 40-50 years old, while 9.2% more than 50 years old. This indicates that the respondents came from various age groups. This can also be explained by the graph as follows.



**Figure 5.1 Frequency Distribution of Age Respondents**

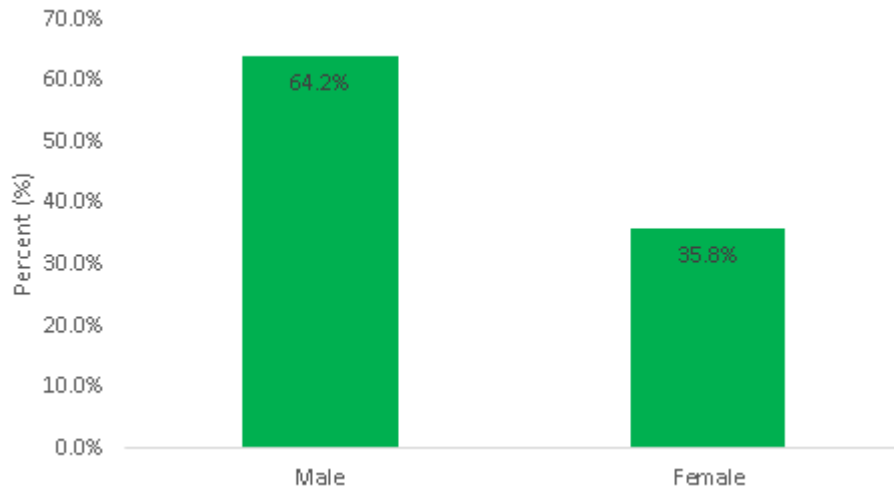
Based on the picture above shows that most respondents were aged between 30-40 years, and those aged more than 50 years have the least frequency.

**5.1.2 Gender**

**Table 5.2 Frequency Table of Gender**

Gender	Frequency	Percentage (%)
Male	77	64.2%
Female	43	35.8%
Total	120	100%

Regarding the gender of the respondents according to the results of research conducted on 120 respondents, the number of male respondents was 77 people (64.2%) more than the female respondents as many as 43 people (35.8%). This can also be explained by the graph as follows.



**Figure 5.2 Frequency Distribution of Gender**

Based on the picture above, it shows that the respondents were more male respondents than female respondents.

### 5.1.3 Level of Education

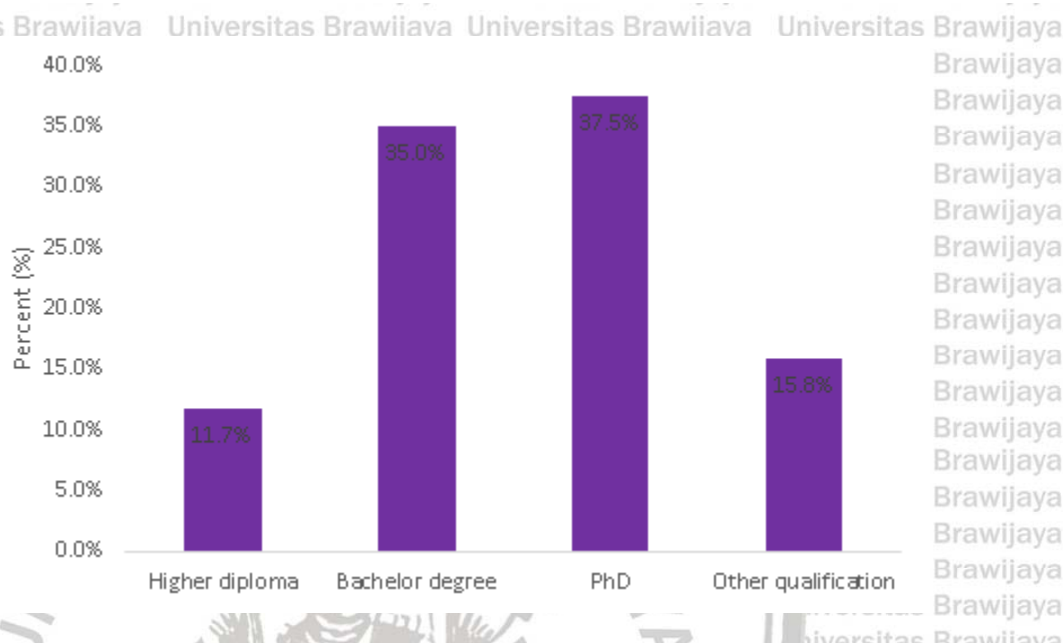
**Table 5.3. Frequency Table of Level of Education**

Level of Education	Frequency	Percentage (%)
Higher diploma	14	11.7%
Bachelor degree	42	35.0%
PhD	45	37.5%
Other qualification	19	15.8%
Total	120	100%

The Level of Education of the respondents according to the results of research conducted on 120 respondents showed that there were as many as 14 people (11.7%) who have an education higher diploma, 35.0% respondents have an education bachelor degree, 37.5% respondents have an education PhD, while 15.8% respondents have an education in other



qualification. This indicates that the respondents came from various Levels of Education. This can also be explained by the graph as follows.



**Figure 5.3 Frequency Distribution of Level of Education**

Based on the picture above shows that most respondents have an education PhD, and the second have an education bachelor degree.

**5.2 Description of Variables.**

The following is a descriptive explanation of items from the dimensions of the observed variables based on the respondents' answers. The results of frequency distribution of 120 respondents in this study can be seen in table results of data analysis.



5.2.1 Service Quality (X1)

Table 5.4 Distribution of Respondents Questionnaires to Items and Variables of Service

Quality

Dimensi on of variable	Item	SD		D		N		A		SA		Me an	AVE mea n
		Fre q	%	Fre q	%	Fre q	%	Fre q	%	Fre q	%		
Reliabil ity (X1.1)	X1.1 .1	8	6.70 %	6	5.00 %	16	13.30 %	68	56.70 %	22	18.30 %	3.7 5	3.88
	X1.1 .2	7	5.80 %	9	7.50 %	16	13.30 %	52	43.30 %	36	30.00 %	3.8 4	
	X1.1 .3	6	5.00 %	8	6.70 %	14	11.70 %	58	48.30 %	34	28.30 %	3.8 8	
	X1.1 .4	7	5.80 %	9	7.50 %	10	8.30 %	56	46.70 %	38	31.70 %	3.9 1	
	X1.1 .5	5	4.20 %	4	3.30 %	13	10.80 %	61	50.80 %	37	30.80 %	4.0 1	
Respons iveness (X1.2)	X1.2 .1	9	7.50 %	6	5.00 %	10	8.30 %	62	51.70 %	33	27.50 %	3.8 7	3.87
	X1.2 .2	6	5.00 %	9	7.50 %	9	7.50 %	67	55.80 %	29	24.20 %	3.8 7	
	X1.2 .3	7	5.80 %	11	9.20 %	10	8.30 %	50	41.70 %	42	35.00 %	3.9 1	
	X1.2 .4	15	12.5 0%	5	4.20 %	11	9.20 %	55	45.80 %	34	28.30 %	3.7 3	
	X1.2 .5	8	6.70 %	6	5.00 %	9	7.50 %	55	45.80 %	42	35.00 %	3.9 8	
Assuran ce (X1.3)	X1.3 .1	11	9.20 %	9	7.50 %	9	7.50 %	58	48.30 %	33	27.50 %	3.7 8	3.87
	X1.3 .2	6	5.00 %	12	10.0 0%	10	8.30 %	55	45.80 %	37	30.80 %	3.8 8	
	X1.3 .3	6	5.00 %	9	7.50 %	12	10.00 %	56	46.70 %	37	30.80 %	3.9 1	
	X1.3 .4	8	6.70 %	10	8.30 %	8	6.70 %	58	48.30 %	36	30.00 %	3.8 7	
	X1.3 .5	5	4.20 %	10	8.30 %	13	10.80 %	51	42.50 %	41	34.20 %	3.9 4	
Empathy (X1.4)	X1.4 .1	14	11.7 0%	5	4.20 %	7	5.80 %	58	48.30 %	36	30.00 %	3.8 1	3.93

Dimensi on of variable	Item	SD		D		N		A		SA		Me an	AVE mea n
		Fre q	%	Fre q	%	Fre q	%	Fre q	%	Fre q	%		
	X1.4 .2	11	9.20 %	6	5.00 %	10	8.30 %	58	48.30 %	35	29.20 %	3.8 3	
	X1.4 .3	5	4.20 %	4	3.30 %	8	6.70 %	54	45.00 %	49	40.80 %	4.1 5	
	X1.4 .4	10	8.30 %	3	2.50 %	9	7.50 %	63	52.50 %	35	29.20 %	3.9 2	
	X1.4 .5	5	4.20 %	7	5.80 %	11	9.20 %	62	51.70 %	35	29.20 %	3.9 6	
	X1.5 .1	8	6.70 %	7	5.80 %	7	5.80 %	55	45.80 %	43	35.80 %	3.9 8	
Tangible s (X1.5)	X1.5 .2	7	5.80 %	9	7.50 %	9	7.50 %	58	48.30 %	37	30.80 %	3.9 1	4.00
	X1.5 .3	4	3.30 %	12	10.0 0%	7	5.80 %	51	42.50 %	46	38.30 %	4.0 3	
	X1.5 .4	4	3.30 %	10	8.30 %	12	10.00 %	53	44.20 %	41	34.20 %	3.9 8	
	X1.5 .5	5	4.20 %	8	6.70 %	9	7.50 %	47	39.20 %	51	42.50 %	4.0 9	
	Service quality												

From the table above we can see that indicator of Tangibles has the biggest value of 4.00 than the other indicators. So it can be said that tangibility is the variable which has the biggest effect to its variables, service quality.

Based on the answers from respondents regarding **Reliability (X1.1)** in the table above, it shows that most respondents agree (56.7%) for questions bank employees serve customer transactions quickly, accurately and thoroughly. As many as 43.3% of respondents agreed to the question bank customer service provides information to prospective customers clearly. The respondents adopt (48.3%) for questions bank service hours are carried out in a timely manner (book time, rest, and closing time). The respondents coincide (46.7%) for questions the bank provides mobile ATM facilities. The respondents agree (50.8%) for questions that the bank network is very broad. While the answers of other respondents varied greatly.

Based on the answers from respondents regarding **Responsiveness (X1.2)** in the table above shows that most respondents accept (51.7%) for questions the bank call center is easy to contact. As many as 55.8% of respondents agreed to the question bank employees respond to transaction request and provide my information well and quickly. The respondents adopt (41.7%) for questions customer service banks provide services that are clear, polite, friendly and smiling in serving customers. The respondents unanimous (45.8%) for questions the bank security guards give direction to customers when they will make transactions. The respondents concurrent (45.8%) for questions the openness of employees in accepting suggestions is very good. While the answers of other respondents varied greatly.

Based on the answers from respondents regarding **Assurance (X1.3)** in the table above shows that most respondents agree (48.3%) for questions I can collect my funds any time I need them through the nearest ATM network. As many as 45.8% of respondents agreeing to the question customer service is able to convince customers that bank savings products are competitive products. The respondents united in opinion (46.7%) for questions the bank guarantees the confidentiality of customers' transactions. The respondents suggested (48.3%) for questions customers feel safe depositing funds at the bank. The respondents said (42.5%) for questions employees always foster good relationships with customers. While the answers of other respondents varied greatly.

Based on the answers from respondents regarding **empathy (X1.4)** in the table above shows that most respondents agree (48.3%) for questions bank employees are able to provide services without differentiating the customer's economic condition. As many as 48.3% of respondents stated to the question bank employees always give greetings when they finish serving the transaction. The respondents adopt (45.0%) for questions customer service banks take the customer's interest seriously. The respondents answered (52.5%) for questions customer service banks always serve customers with a sense of family. The respondents agreed (52.5%)

for questions customer service responds well to customers who complain. While the answers of other respondents varied greatly.

Based on the answers from respondents regarding **Tangibles (X1.5)** in the table above shows that most respondents agree (45.8%) for questions The bank has a comfortable and clean waiting room. As many as 48.3% of respondents coincide to the question the bank has adequate and extensive parking facilities. The respondents agree (42.5%) for questions The bank room is always neatly arranged. The respondents answered (44.2%) for questions technology equipment and equipment such as computers, telephones, air conditioners in banks are sufficient. The respondents very agreeing (42.5%) for questions the appearance of bank employees is always neat and pleasing. While the answers of other respondents varied greatly.

**5.2.1 Risk Perception**

Table 5.5 Distribution of Respondents Questionnaires to Items and Variables of Risk Perception

Dimension of variables	Item	SD		D		N		A		SA		MEAN	AV E me an
		Fre q	%	Fre q	%	Fre q	%	Fre q	%	Fre q	%		
Physical risk (X2.1)	X2.1 .1	5	4.20 %	11	9.20 %	22	18.30 %	62	51.70 %	20	16.70 %	3.68	2.79
	X2.1 .2	45	37.50 %	49	40.80 %	20	16.70 %	5	4.20 %	1	0.80 %	1.90	
Performan ce risk (X2.2)	X2.2 .1	43	35.80 %	43	35.80 %	24	20.00 %	7	5.80 %	3	2.50 %	2.03	2.07
	X2.2 .2	38	31.70 %	43	35.80 %	29	24.20 %	8	6.70 %	2	1.70 %	2.11	
Psycholog ical risk (X2.3)	X2.3 .1	2	1.70 %	11	9.20 %	19	15.80 %	68	56.70 %	20	16.70 %	3.78	3.75
	X2.3 .2	5	4.20 %	11	9.20 %	21	17.50 %	58	48.30 %	25	20.80 %	3.73	
Finance Risk (X2.4)	X2.4 .1	7	5.80 %	13	10.80 %	13	10.80 %	61	50.80 %	26	21.70 %	3.72	3.74
	X2.4 .2	6	5.00 %	13	10.80 %	17	14.20 %	52	43.30 %	32	26.70 %	3.76	

Dimensi n of variables	Item	SD		D		N		A		SA		M EA N	AV E me an
		Fre q	%	Fre q	%	Fre q	%	Fre q	%	Fre q	%		
Time-loss risk (X2.5)	X2.5 .1	7	5.80 %	13	10.80 %	13	10.80 %	61	50.80 %	26	21.70 %	3.7 2	3.7 5
	X2.5 .2	7	5.80 %	13	10.80 %	13	10.80 %	53	44.20 %	34	28.30 %	3.7 8	
Social risk (X2.6)	X2.6 .1	8	6.70 %	10	8.30 %	12	10.00 %	57	47.50 %	33	27.50 %	3.8 1	3.8 4
	X2.6 .2	6	5.00 %	13	10.80 %	11	9.20 %	51	42.50 %	39	32.50 %	3.8 7	
RISK PERCEPTION												3.3 2	

From the table above we can see that indicator of social risk has the biggest value of 3.84 than the other indicators. So it can be said that social risk is the variable which has the biggest effect to its variables, risk perception.

Based on the answers from respondents regarding **Financial risk (X2.4)** in the table above shows that most respondents agree (50.8%) for questions interest rate of deposit/ saving from the bank is good. As many as 43.3% of respondents adopt to the question I have experienced fraud when making transactions at this bank. While the answers of other respondents varied greatly.

Based on the answers from respondents regarding **Social risk (X2.6)** in the table above shows that most respondents agree (47.5%) for questions I'm worried about being teased by friends for using this bank product. As many as 42.5% of respondents coincided to the question friends or family do recommend other banks. While the answers of other respondents varied greatly.

Based on the answers from respondents regarding **Time-loss risk (X2.5)** in the table above shows that most respondents agree (50.8%) for questions when I use the services and

products of this bank, the bank responds quickly. As many as 44.2% of respondents adopted to the question transactions are completed on time. While the answers of other respondents varied greatly.

Based on the answers from respondents regarding **Physical risk (X2.1)** in the table above shows that most respondents agree (51.7%) for questions making transactions at this bank is not tiring. As many as 40.8% of respondents disagreed to the question products and services provide comfort to customers. While the answers of other respondents varied greatly.

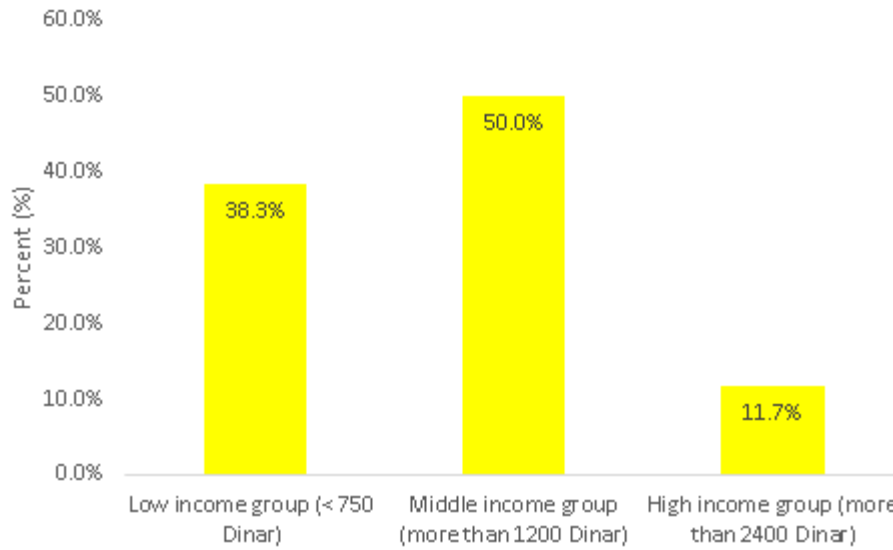
Based on the answers from respondents regarding **Psychological risk (X2.3)** in the table above shows that most respondents agree (56.7%) for questions I am happy to use this bank's products and services. As many as 48.3% of respondents answered to the question I am proud when using this bank product. While the answers of other respondents varied greatly

### 5.2.2 Income/Month

**Table 5.6 Frequency Table of Income/Month of Respondents**

Income/month	Frequency	Percentage (%)
Low income group (< 750 Dinar)	46	38.3%
Middle income group (more than 1200 Dinar)	60	50.0%
High income group (more than 2400 Dinar)	14	11.7%
Total	120	100%

The income/month of the respondents according to the results of research conducted on 120 respondents showed that there were as many as 46 people (38.3%) have income Low income group (< 750 Dinar) per month, 50.0% have income middle income group (more than 1200 Dinar) per month, while 11.7% have income high income group (more than 2400 Dinar) per month. This can also be explained by the graph as follows.



**Figure 5.4 Frequency Distribution of Income/month**

Based on the picture above shows that most respondents were have income middle income group (more than 1200 Dinar) per month.

**5.2.3 Interest rate (X4)**

The following will be presented in Table 6 description of respondents' answers to the questions in the variable Interest rate (X4).

**Table 5.7 Frequency Distribution of respondents' answers For Variable Interest rate (X4)**

Dimension of variables	Item	SD		D		N		A		SA	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
X4	X4.1	9	7.5%	10	8.3%	19	15.8%	52	43.3%	30	25.0%
	X4.2	8	6.7%	12	10.0%	21	17.5%	49	40.8%	30	25.0%
	X4.3	8	6.7%	13	10.8%	19	15.8%	49	40.8%	31	25.8%

Based on the answers from respondents regarding interest rate **10%** in the table above shows that most respondents agree (43.3%) for questions “*I can collect MT funds any time I need them through the nearest ATM network*”. As many as 40.8% of respondents accepted to the question “*Customer service is able to convince customers that bank savings products are*



competitive products". The respondents disagreed (40.8%) for questions "The bank guarantees the confidentiality of customer's transactions". While the answers of other respondents varied greatly.

### 5.2.4 Customer satisfaction (Y)

Table 5.8 Distribution of Respondents Questionnaires to Items and Variables of Customer Satisfaction

Dimens ion of variabl es	Item	SD		D		N		A		SA		ME AN	AVE mea n
		Fre q	%	Fre q	%	Fre q	%	Fre q	%	Fre q	%		
Y	Delivery system	10	8.30 %	11	9.20 %	20	16.70 %	49	40.80 %	30	25.00 %	3.65	3.42
	service performance	9	7.50 %	9	7.50 %	19	15.80 %	49	40.80 %	34	28.30 %	3.75	
	Image	9	7.50 %	9	7.50 %	16	13.30 %	56	46.70 %	30	25.00 %	3.74	
	price and value	6	5.00 %	10	8.30 %	16	13.30 %	67	55.80 %	21	17.50 %	3.73	
	Employee performance	16	13.30 %	21	17.50 %	32	26.70 %	39	32.50 %	12	10.00 %	3.08	
	Competition	21	17.50 %	37	30.80 %	38	31.70 %	16	13.30 %	8	6.70 %	2.61	
Customer satisfaction												3.42	

From the table above we can see that indicator of service performance has the biggest value of 3.75 than the other indicators. So it can be said that service performance is the variable which has the biggest effect to its variables, customer satisfaction.

Based on the answers from respondents regarding **Delivery system (Y1.1)** in the table above shows that most respondents agree (40.8%) for questions I am satisfied with the services transaction provided by the bank. As many as 40.8% of respondents coincided to the question I

feel satisfied with the services provided by the bank that regarding **Product or service performance (Y1.2)**. Regarding to **image (Y1.3)** the respondents adopted (46.7%) for questions I feel satisfied with the product provided by the bank. Regarding to **Relationship between price and value (Y1.4)** the respondents agreed (55.8%) for questions I feel satisfied with the value provided by the bank. Regarding to **Employee performance or achievement (Y1.5)** the respondents accepted (32.5%) for questions I feel satisfied with the employee performance in the bank. Regarding to **competition (Y1.6)** the respondent's neutral (31.7%) for questions I already feel satisfied and have no desire to move to another bank. While the answers of other respondents varied greatly.

### 5.3 Test Validity and Reliability

Validity and Reliability test are used to find an indicator is forming a construct (latent variables) testing the convergent validity of the measurement model with a reflexive indicators assessed based on the correlation between the items score to construct scores were calculated with the help of software Smart PLS.

The accuracy of hypothesis testing on the relationship of research variables depends on the quality of the data used in the test. Therefore, before testing the hypothesis needs to be tested on the validity and reliability of the research instrument used. Testing the instrument of research both in terms of validity and reliability of 40 respondents obtained that the results of research instruments used are valid where the coefficient correlation has a significance value ( $p$ ) that smaller than alpha 0.05 (Sugiyono, 2002:106), and an instrument (questionnaire) is said to be reliable if it has reliability coefficient of 0.6 or more (Arikunto, 2002). More details can be seen in the table as follows.

**Table 5.9 The Results of Validity Test**

Variables	Item instruments	Validity test		Results
		coefficient correlation	Sign.(p)	
X1.1	X1.1.1	0.948	0.000	Valid
	X1.1.2	0.949	0.000	Valid
	X1.1.3	0.961	0.000	Valid
	X1.1.4	0.930	0.000	Valid
	X1.1.5	0.951	0.000	Valid
X1.2	X1.2.1	0.813	0.000	Valid
	X1.2.2	0.804	0.000	Valid
	X1.2.3	0.839	0.000	Valid
	X1.2.4	0.816	0.000	Valid
	X1.2.5	0.877	0.000	Valid
X1.3	X1.3.1	0.882	0.000	Valid
	X1.3.2	0.939	0.000	Valid
	X1.3.3	0.860	0.000	Valid
	X1.3.4	0.913	0.000	Valid
	X1.3.5	0.909	0.000	Valid
X1.4	X1.4.1	0.948	0.000	Valid
	X1.4.2	0.951	0.000	Valid
	X1.4.3	0.948	0.000	Valid
	X1.4.4	0.879	0.000	Valid
	X1.4.5	0.951	0.000	Valid
X1.5	X1.5.1	0.939	0.000	Valid
	X1.5.2	0.936	0.000	Valid
	X1.5.3	0.961	0.000	Valid
	X1.5.4	0.955	0.000	Valid
	X1.5.5	0.914	0.000	Valid
X2.1	X2.1.1	0.980	0.000	Valid
	X2.1.2	0.982	0.000	Valid
X2.2	X2.2.1	0.961	0.000	Valid
	X2.2.2	0.973	0.000	Valid
X2.3	X2.3.1	0.972	0.000	Valid
	X2.3.2	0.974	0.000	Valid
X2.4	X2.4.1	0.956	0.000	Valid
	X2.4.2	0.960	0.000	Valid



X2.5	X2.5.1	0.977	0.000	Valid
	X2.5.2	0.980	0.000	Valid
X2.6	X2.6.1	0.949	0.000	Valid
	X2.6.2	0.947	0.000	Valid
X4	X4.1	0.940	0.000	Valid
	X4.2	0.904	0.000	Valid
	X4.3	0.942	0.000	Valid
Y	Y1.1	0.941	0.000	Valid
	Y1.2	0.965	0.000	Valid
	Y1.3	0.960	0.000	Valid
	Y1.4	0.955	0.000	Valid
	Y1.5	0.918	0.000	Valid
	Y1.6	0.929	0.000	Valid

Based on the table above it can be explained that for each variable of X1.1, X1.2, X1.3, X1.4, X1.5, X2.1, X2.2, X2.3, X2.4, X2.5, X2.6, X4, and Y have different number of items instrument that developed by the researcher.

- Service Quality:

- 1) In variable Reliability (X1.1) with five dimension of variables, for item X1.1.1 to X1.1.5 are considered valid because they have a significance value lower than alpha 0.05.
- 2) In variable Responsiveness (X1.2) with five dimension of variables, for item X1.2.1 to X1.2.5 are considered valid because they have a significance value lower than alpha 0.05.
- 3) In variable Assurance (X1.3) with five dimension of variables, for item X1.3.1 to X1.3.5 are considered valid because they have a significance value lower than alpha 0.05.
- 4) In variable Empathy (X1.4) with five dimension of variables, for item X1.4.1 to X1.4.5 are considered valid because they have a significance value lower than alpha 0.05.
- 5) In variable Tangibles (X1.5) with five dimension of variables, for item X1.5.1 to X1.5.5 are considered valid because they have a significance value lower than alpha 0.05.

- Risk perception:



Thus, all instrument items of all observed variables can be included in further testing.

As for the coefficient of reliability with the calculation by the formula, then interpreted by referring to the reliability criteria proposed by Arikunto (2002) that the reliability criteria for group performance is considered adequate if the coefficient of Alpha 0.60-0.70. About the criteria index reliability coefficient can be seen in Table below.

**Table 5.10. Criteria Reliability Index**

Number	Reliability Index Interval	Criteria
1	< 0.200	Very low
2	0.200-0.399	Low
3	0.400-0.599	Medium
4	0.600-0.799	High
5	0.800-1.00	Very High

Furthermore, the instrument reliability test results in this study are briefly presented in tabular form as follows:

**Table 5.11 The Result of Validity and Reliability Test**

	Alpha Cronbach (based on standardized items)	Result
<b>Service Quality X1</b>	<b>0.917</b>	The reliability level is very high
<b>Risk Perception X2</b>	<b>0.980</b>	The reliability level is very high
<b>Customer Satisfaction Y</b>	<b>0.976</b>	The reliability level is very high

Furthermore, based on the data shown in the above table it can be explained also that all items as a measure of the observed variables are RELIABLE, since the Cronbach alpha value of the tested variables has a larger SIA (Standardized Item Alpha) of the allowed value of reliability, that is 0.6. That is, how many times the statements in the questionnaire developed by researchers submitted to different respondents, responses from the respondents will not be too much different.

#### 5.4 Convergent validity

Based on the convergent validity of the test results, it can be seen that:

All the indicators of The dimension of X1.1, X1.2, X1.3, X1.4 and X1.5 as dimension of variables Service Quality (X1) has a value of loading factor more than 0.5 and t-statistics  $> 1.96$ . This means: the indicators of The dimension of X1.1, X1.2, X1.3, X1.4 and X1.5 is valid in measuring the Service Quality (X1). So it can be done interpretations of further testing.

All the indicators of The dimension of X2.1, X2.2, X2.3, X2.4, X2.5 and X2.6 as dimension of variables Risk Perception(X2) has a value offloading factor more than 0.5 and t-statistics  $> 1.96$ . This means: the indicators of The dimension of X2.1, X2.2, X2.3, X2.4, X2.5 and X2.6 is valid in measuring the Risk Perception (X2). So it can be done interpretations of further testing.

The indicators X4.1, X4.2 and X4.3as Indicators of variables Interest Rate(X4) has a value of loading factor more than 0.5 and t-statistics  $> 1.96$ . This means: the indicators of X4.1, X4.2 and X4.3 is valid in measuring the Interest Rate (X4). So it can be done interpretations of further testing.

The indicators Y1.1, Y1.2, Y1.3, Y1.4, Y1.5, and Y1.6 as Indicators of variables customer satisfaction (Y) has a value of loading factor more than 0.5 and t-statistics  $> 1.96$ . This means: the indicators of Y1.1, Y1.2, Y1.3, Y1.4, Y1.5, and Y1.6 is valid in measuring the customer satisfaction (Y). So it can be done interpretations of further testing.

#### 5.5 Test Validity Discriminant

Furthermore, discriminant validity will be tested by looking at the average variance extracted (AVE) root value for each construct and comparing it with the correlation between constructs. Discriminant validity test is used to see whether an indicator of a certain latent variable

is completely different from other latent variable indicators, so that the indicator is truly considered feasible to explain its latent variables. An indicator is considered to meet convergent validity if the AVE value is greater than 0.50.

Based on the discriminant validity of the test results in Table 2, it can be seen that the AVE value the variables analyzed is all greater than 0.50. All variable that is Customer Satisfaction (Y), Income (X3), Interest Rate (X4), Risk Perception (X2), and Service Quality (X1), and also all the moderating variables have AVE value greater than 0.50, that means Customer Satisfaction (Y), Income (X3), Interest Rate (X4), Risk Perception (X2), and Service Quality (X1), and also all the moderating variables have a good discriminant validity.

### 5.6 Reliability of Composite

Results retesting after the indicator which does not meet the reliability test composite omitted from the research model can be seen in the following table.

**Table 5.12 Reliability Testing Results Composites**

Variable	Composite Reliability size( $\rho_c$ )	Description
Service Quality	0.966	Reliable
Risk Perception	0.939	Reliable
Customer Satisfaction	0.977	Reliable

Based on the results of the test re test reliability of composites in Table, it can be seen that the variable Customer Satisfaction (Y), Risk Perception (X2), and Service Quality (X1), has a size larger composite reliability of 0.70. This means: the variable Customer Satisfaction (Y), Risk Perception (X2), and Service Quality (X1),



### 5.6.1. Construct Dependent Evaluation

Evaluation of the model using the R-square ( $R^2$ ) to construct the dependent R-square value reflects the overall predictive power of the model (Falk and Miller, 1992, Pirouz, 2006) with a limit of R-square values greater than 0.10 or greater than 10 percent (or goodness-fit of the model).

**Customer satisfaction (Y)** has R square for 0.896, means that the variable Customer satisfaction (Y) is influenced by variable Income (X3), Interest Rate (X4), Risk Perception (X2), and Service Quality (X1), and also all the moderating variables of 0.896, or 89.6%, while 10.4% influenced by other factors or variables that are not included in the model equations.

### 5.6.2 Evaluation of Predictive Relevance Stone-Geisser Q-Square test for predictive relevance. Of the value of R2 are then put into the equation Q-square follows:

$$Q^2 = 1 - (1 - R^2_1) (1 - R^2_2) (1 - R^2_3) \dots (1 - R^2_n)$$

$$Q^2 = 1 - (1 - 0.896)$$

$$Q^2 = 1 - (0.104) = 0.896$$

Q-Square value greater than 0 (zero) indicates that the model has predictive relevance, while the value of the Q-Square is less than 0 (zero) indicates that the model lacks predictive relevance (Imam Widodo, 2006:26). Results Q-Square of Smart PLS above shows that the model has predictive relevance, because it has a value of **0.896** greater than 0 (zero) means that the model is **very good to use**.

2. While the evaluation Stone-Geisser Q-Square ( $Q^2$  test) for predictive relevance yield valuable R square value greater than 0 (zero), so this meant that the structural model has predictive relevancies very high.

### 5.7 Hypothesis Testing

Hypothesis testing is done by the bootstrap resampling method developed by Geisser and Stone. Statistical test used is the statistic t or t test. Application of resampling methods, allowing free entry into force of the distributed data (distribution free), does not require the assumption of a normal distribution, and does not require a large sample. Testing is done by t - statistic, when obtained t-statistic > t-table, then concluded significantly, and vice versa. When the results of testing hypothesis on models outer significantly, it indicates that the indicator is viewed can be used as a measuring instrument latent variables. Meanwhile, when the test results in inner models is significant, it means that there is a significant effect of latent variables to other latent variables.

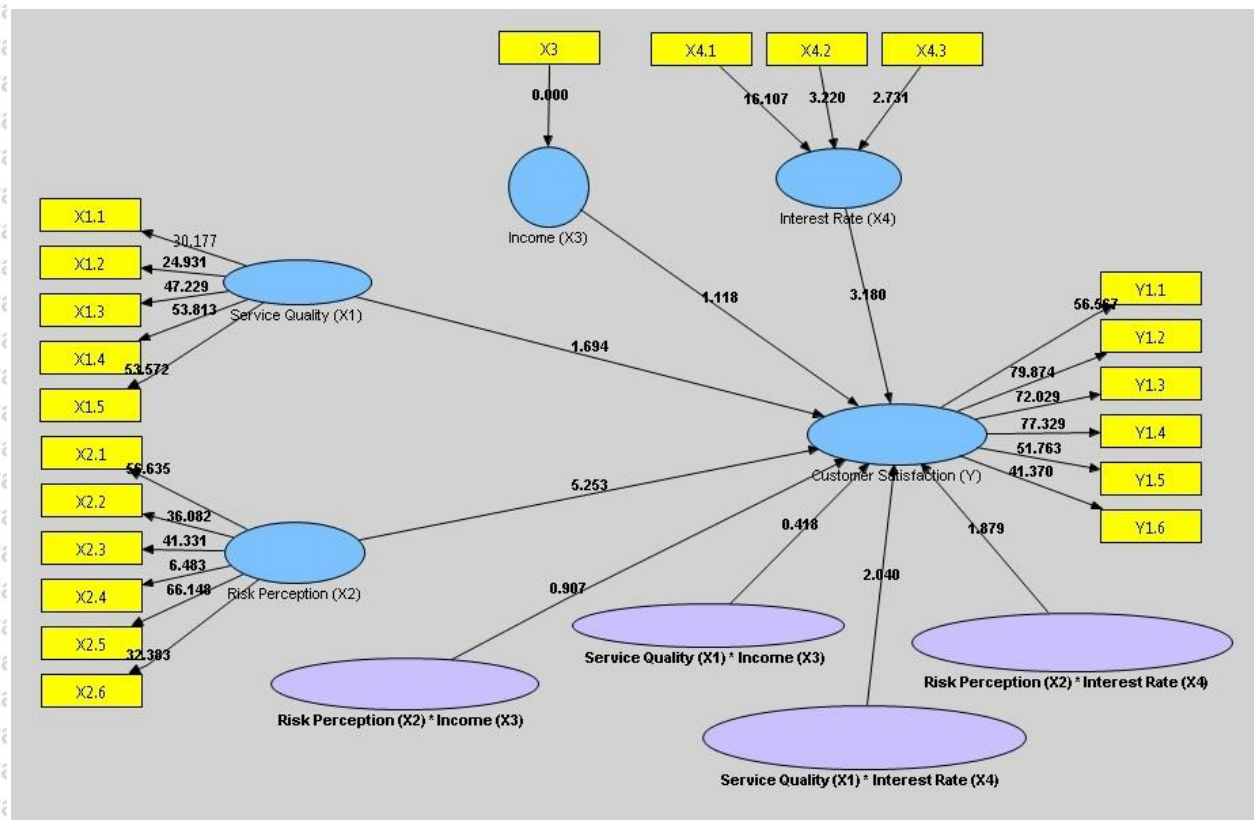


Figure 5.5 Path diagram (second running by PLS)

To test the hypothesis, we can see the value of t-statistics. Limits to reject and accept the hypothesis put forwards 1.96 (t table). where if the value t statistics is in the range of tables and value stable then the hypothesis will be rejected or, in other words accept the null hypothesis (H<sub>0</sub>).

From figure 5.5 we can see the value between each indicator and its variable. From service quality there are five indicators and x1.1 (Empathy) has the most influence effect with service quality with the value 53.813. Risk perception has six indicators and x2.5 (time-loss risk) has the most influence effect with risk perception with the value 66.148. Interest rate has three indicators and x4.1 (10%) has the most influence effect with interest rate with the value 16.107. The last one is income, it has only one valid indicator with the value 1,000. For more detail result from figure 5.5, let see the table below:

**Table 5.13 Indicators**

Variables	Indicators	Value	Description
<b>Service quality (x1)</b>	X1.1 Reliability	30.177	
	X1.2 Responsiveness	24.931	
	X1.3 Assurance	47.229	
	<b>X1.4 Empathy</b>	<b>53.813</b>	<b>most influence effect</b>
	X1.5 Tangibles	53.572	
<b>Risk perception (x2)</b>	X2.1 Physical risk	56.635	
	X2.1 Performance risk	36.082	
	X2.3 Psychological risk	41.331	
	X2.4 Financial risk	6.483	
	<b>X2.5 Time-loss risk</b>	<b>66.148</b>	<b>most influence effect</b>
	X2.6 Social risk	32.383	
<b>Income (x3)</b>		1.000	
<b>Interest rate (x4)</b>	<b>10%</b>	<b>16.107</b>	<b>most influence effect</b>

Variables	Indicators	Value	Description
	12%	3.220	
	15%	2.731	

For moderating variable, from figure 5.5 we can see that only Service quality to interest rate has significant result, while the other three has not significant result. For more detail we can see in the table below:

**Table 5.14. Moderating Variable**

Moderating Variable			
Risk perception*Income		-0.907	Not significant
Service quality*Income		0,418	Not significant
Service quality*Interest rate		2.040	Significant
Risk perception*Interest rate		1.878	Not Significant

**Table 5.15 The Result of Hypothesis Testing**

	Loading Factor	Sample Mean (M)	Standard Error (STERR)	T Statistics ( O/STERR )	Probability
Income -> Customer Satisfaction	0.178	0.173	0.159	1.118	Not significant
Interest Rate -> Customer Satisfaction	0.319	0.310	0.100	3.174	Significant
Risk Perception -> Customer Satisfaction	1.013	0.975	0.192	5.152	Significant
Risk Perception * Income -> Customer Satisfaction	-0.393	-0.463	0.433	0.907	Not significant
Risk Perception * Interest Rate -> Customer Satisfaction	-0.865	-0.717	0.460	1.878	Not Significant
Service Quality -> Customer Satisfaction	-0.357	-0.316	0.211	1.694	Not significant
Service Quality * Income -> Customer Satisfaction	-0.202	0.274	0.484	0.418	Not significant
Service Quality * Interest Rate -> Customer Satisfaction	0.936	0.796	0.459	2.040	significant

The estimation results of inner model for the direct effect of income to customer satisfaction shows the value of t -statistics for 1.118, where the value is lower than 1.96 with error level  $\alpha = 5\%$ , so this indicates there is no significant direct effect between income to customer satisfaction by loading factor 0.178. In other words, there is an increase or decrease in income factor, it does not affect the increase or decrease of customer satisfaction.

The estimation results of inner model for the direct effect of interest rate to customer satisfaction shows the value of t -statistics for 3.174, where the value is greater than 1.96 with error level  $\alpha = 5\%$ , so this indicates there is a significant direct effect between interest rate to customer satisfaction by loading factor 0.319. The positive influence between interest rate to customer satisfaction can be interpreted that the higher interest rate, then it will be followed by an increase customer satisfaction. And vice versa, the worse interest rate then this will decrease customer satisfaction.

The estimation results of inner model for the direct effect of risk perception to customer satisfaction shows the value of t -statistics for 5.152, where the value is greater than 1.96 with error level  $\alpha = 5\%$ , so this indicates there is a significant direct effect between risk perception to customer satisfaction by loading factor 1.013. The positive influence between risk perception to customer satisfaction can be interpreted that the higher risk perception, then it will be followed by an increase customer satisfaction. And vice versa, the worse risk perception then this will decrease customer satisfaction.

The estimation results of inner model for the direct effect of moderating variable risk perception\*income to customer satisfaction shows the value of t -statistics for 0.907, where the value is lower than 1.96 with error level  $\alpha = 5\%$ , so this indicates there is no significant direct effect between moderating variable risk perception\*income to customer satisfaction by loading

factor -0.393. In other words, there is an increase or decrease in moderating variable risk perception\*income factor, it does not affect the increase or decrease of customer satisfaction.

The estimation results of inner model for the direct effect of moderating variable risk perception\*interest rate to customer satisfaction shows the value of t -statistics for 1.878, where the value is lower than 1.96 with error level  $\alpha = 5\%$ , so this indicates there is no significant direct effect between moderating variable risk perception\*interest rate to customer satisfaction by loading factor -0.865. In other words, there is an increase or decrease in moderating variable risk perception\*interest rate factor, it does not affect the increase or decrease of customer satisfaction.

The estimation results of inner model for the direct effect of service quality to customer satisfaction shows the value of t -statistics for 1.694, where the value is lower than 1.96 with error level  $\alpha = 5\%$ , so this indicates there is no significant direct effect between service quality to customer satisfaction by loading factor -0.357. In other words, there is an increase or decrease in service quality factor, it does not affect the increase or decrease of customer satisfaction.

The estimation results of inner model for the direct effect of moderating variable service quality\*income to customer satisfaction shows the value of t -statistics for 0.418, where the value is lower than 1.96 with error level  $\alpha = 5\%$ , so this indicates there is no significant direct effect between moderating variable service quality\*income to customer satisfaction by loading factor -0.202. In other words, there is an increase or decrease in moderating variable service quality\*income factor, it does not affect the increase or decrease of customer satisfaction.

The estimation results of inner model for the direct effect of moderating variable service quality \*interest rate to customer satisfaction shows the value of t -statistics for 2.040, where the value is higher than 1.96 with error level  $\alpha = 5\%$ , so this indicates there is a significant direct effect between moderating variable service quality \*interest rate to customer satisfaction by loading factor 0.936. The positive influence between services quality\*interest rate to customer satisfaction can be interpreted that the higher services quality\*interest rate , then it will be followed by an

increase customer satisfaction. And vice versa, the worst services quality\*interest rate then this will decrease customer satisfaction.

5. 8 Discussion

Table 5.16 Comparison Between This Study and Previous Study

No	Current study	Description	Previous study	Description
1	Risk Perception to Customer Satisfaction	Significant	Relationship of Customer Perceived Risk and Customer Satisfaction Ghotbabadi, et.al (2016)	Significant
2	Risk Perception * Income to Customer Satisfaction	Not significant		
3	Risk Perception * Interest Rate to Customer Satisfaction	Not Significant		
4	Service Quality to Customer Satisfaction	Not significant	Service Quality and Customer Satisfaction Wafaa (2014),	Not significant
			Service Quality on Customer Satisfaction Melaku (2015)	Significant
			Service Quality and Its Impact on Customer Satisfaction Naeem, et.al. (2009)	Not significant
5	Service Quality * Income to Customer Satisfaction	Not Significant		
6	Service Quality * Interest Rate -> Customer Satisfaction	Significant	Service Performance on Customer Satisfaction Andreany and Wijayanti (2014)	Significant

### 5.8.1 Role of Income as Moderator Variable

Keynesians have stressed the relationship between income, output, and expenditure. Since transactions are two-sided—in that one person's income is another person's expenditure (Keynes, 1936). According to the results of this study, the result of hypothesis testing showed that the relationship between income and customer satisfaction not significant (1.118). compare the result of this study with the previous study, it shows that study done by Razak (2016) stated no significant effect of income to customer satisfaction in BNI loyalty in Southeast Sulawesi, but it is found that the income plays a role in strengthening the satisfaction effect on customer loyalty. Customer decision will be depending on the information they get. Yusuf, et al. 2015 said that customer who income has less limit than customer with low income so that the customer with high income tent to be loyal to the company. In this study the un significant condition may be related to the limitation due unknown factor might be in other factor. Customers will be satisfied with the service and product that will be produced if the service or product can meet the needs and expectations of the customer, but if the service or product produced cannot meet the needs or desires of the customer, it will cause dissatisfaction for the customer. Income is a description of the level of a person's ability to meet the material needs in a certain time unit that is commonly used usually in one month. This level of income is used with a standard of living that generally applies in the community concerned.

### 5.8.2 Role of Interest Rate as Moderator Variable

Keynesian theory states that, the interest rate is determined by demand and supply of money, according to this theory there are three motives, why someone is willing to hold cash, namely the motive of transactions, just in case and speculation.

According to the results of this study, the result of hypothesis testing showed the relationship between risk perception and customer satisfaction was significant (3.174). compare



to the result of this study with the previous study, it shows that study done by Danijela, et al. (2015) that bank interest rate is more significant with individual clients and retail above the index of satisfaction of the services. Researching the customer satisfaction with the services of financial institutions show the improving trends in satisfaction levels, which is mainly caused by quality of electronic payment and billing capabilities. As good example can be seen findings from Banking Industry Customer Satisfaction Survey 2014 provided by KPMG (KPMG Advisory Services, a Nigerian partnership, member firm of the KPMG network of independent firms affiliated with KPMG International Cooperative), covering 28 cities in 27 states across Nigeria. 20,770 retail banking customers, 3,500 SMEs and about 400 corporate/ commercial organizations have been questioned. The interest rate greatly affects the community to be able to increase savings. This can be observed in the daily lives of people who are always looking for information about the interest rates created in their money markets knowing that the highest interest rate is that people will reduce their spending to consume to increase their savings because people have hopes that their money will increase in the following month or year than they have to save money at home.

### **5.8.3 Effect of Risk Perception to Customer satisfaction**

Risk perception is a feeling of uncertainty over the negative consequences of decisions taken by consumers (Samadi and Yaghoob-Nejadi, 2009). According to the results of this study, the result of hypothesis testing showed the relationship between risk perception and customer satisfaction was significant (5.252). compare the result of this study with the previous study, it shows that study done by Ghotbabadi, et al. (2016) that perceived risk will affect customer satisfaction on Iran airlines. Ghotbabadi, et al (2016) confirmed that significant relationship of service quality, relationship marketing and brand image with the customer satisfaction by mediating the customer's perceived risk. Risk perception is defined as uncertainty faced by consumers when they cannot predict the consequences when making a purchasing decision.

There are two dimensions' important points in the definition of this risk perception, namely uncertainty and consequences.

This definition emphasizes that consumers are influenced by the risk they perceive, regardless of whether or not the risk exists. Risks that do not exist in consumer perception will not affect consumer behavior (Schiffman and Kanuk, 2010). Thus, it is important for companies to increase their customer's satisfaction in order to increase the customer's future purchasing intention and gaining more profit for the company. Researchers and managers will mostly have focused on the factors that increase the customer's satisfaction but there is also a negative side, which the managers also have to pay attention on the factors that can reduce the customer's satisfaction at the same time.

Customer's satisfaction has massive influence on the loyalty behavior of customers, retention, and repurchase and it was considered as the main target of firms in order to improve their sale, profit and market share. Most researchers were looking for positive elements that can improve the customer's satisfaction but there is factor which has negative effect and able to reduce the customer's satisfaction. However, the positive impacts are so important, that the negative impacts can have their own threats to harm the customer's satisfaction. Firms have to consider both sides, positive and negative simultaneously. One of these threat factors is the customer's perceived risk.

Furthermore, numerous researchers found that the customer's perceived risk significantly affects the decision making and evaluation process. While the customer's satisfaction is the positive evaluation of performance, perceived risk is the negative evaluation that will lead to transaction avoidance of a product or service. Customer's perceived risk is important in the evaluation process of decision making and taking the risk of choosing a particular brand or paying for a product or service (Ghotbabadi, et al. 2016).

#### 5.8.4 Effect of risk perception and income to customer satisfaction

According to the results of this study, the result of hypothesis testing showed the relationship between risk perception and income to customer satisfaction was not significant (0.907). compare the result of this study with the previous study, it shows that study done by Razak (2016). Income is a description of the level of a person's ability to meet the material needs in a certain time unit that is commonly used usually in one month. This level of income is used with a standard of living that generally applies in the community concerned. Income certainly greatly influences the amount of savings deposited by the public in banking institutions, in the sense that the greater the income, the greater the level of community savings, if the income increases in number then the public funds collected by banking institutions have a tendency to increase.

In providing the customer satisfaction, according to the marketing concept, it is necessary for any companies to conduct any guidance to customers, through the consumer. To be able to manage its customers or market, then the company is necessary to provide services according to its ability, so it is directed to the target market. The Company must classify customers into groups with similar characteristics and properties. The group listed is so-called as market segment, while the business grouping is called market segmentation. satisfaction is a function from the perception or impression on the performance and expectations. If the performance is below the expectations, the customer is not satisfied. If the performance meets the expectations from our customers, then they are satisfied. If the performance is more than the expectations from our customers, then they are very satisfied or happy. The key to create the customer loyalty is to provide high customer value. The customer satisfaction is one of the factors affecting on the re-purchase. The customer satisfaction is an important factor in a relationship marketing to increase the customer loyalty.

### 5.8.5 Effect of Risk perception and interest rate to customer satisfaction

According to the results of this study, the result of hypothesis testing showed the relationship between risk perception and interest rate to customer satisfaction was not significant (1.878). compare the result of this study with the previous study, it shows that study done by (Kathryn & Mary, 2002). Risk perception is also important factors that influence consumers to purchase a product. Risk has an impact on a person's attitude and behavior in making transactions with other parties. The level of risk is an important factor in shaping customer attitudes and behavior in all kinds of business transactions. A high level of risk will make customers uncomfortable in conducting e-commerce

Another opinion about perceived risk is that the presumption of risk presents an individual's assessment of the possibilities related to positive or negative results of a transaction or situation, and a multidimensional form consisting of two types of risk, namely product risk and financial risk in spending online (online shopping) (Bhatnagar et al, 2000). Satisfaction exerts a stronger influence on the purchase intent (behavioral component) in the case of those individuals with a higher perceived risk associated to online purchase than in the case of those with a lower perceived risk. The effect of satisfaction on commitment (attitudinal component) is weaker in those consumers who have a higher perception of risk, to the point of not being significant. Finally, website satisfaction leads to word-of-mouth (attitudinal component) regardless of the level of perceived risk. The perceived risk can be reduced and the satisfaction increased if the company improves the design of its website. A better design will make it easier for the customers to consult any doubt they may have and also will facilitate the purchasing process.

This will undoubtedly reduce the tension or anxiety and will translate into a more favorable purchase experience, so the consumer will be more predisposed to purchase again on the website. It is also necessary for the company to provide complete and detailed information about

how to carry out a purchase. Being informed during the whole process, knowing what to do at every step, knowing our rights and the security and data protection procedures, reduces the risk associated to online shopping and leads to a successful purchase, which generates a stronger feeling of satisfaction.

If the consumer's assessment of the product image received is a positive assessment, then this product image will have an impact on the occurrence of customer satisfaction. Brand image is a perception of a brand as reflected by the brand itself into memory when a consumer sees the brand. Brand image is built from several sources including brand and product category experience, product attributes, price information, positioning on promotional communication, user imagination, and usage conditions. The brand image includes brand attributes, brand benefits, and brand attitudes. Corporate image is a representation of the overall perception of the company and is formed from information and experience of the company. Impressions related to the company will increase with more and more customer experience in working together in a company or by increasingly hearing about the company in a communication strategy.

A company is a set of associations, usually strung together in a useful form. Corporate image has a significant influence on customer satisfaction. Employees of a company must maintain their corporate image well maintained. A good corporate image will make it easier for customers to recognize a company and allow it to collaborate with bank products so that in the end the company will get greater profits. (Indarto E.W, et al. 2018).

### 5.8.6 Effect of Service quality to customer satisfaction

Cronin and Taylor (Altman & Helms, 1995: 45) say "Service quality is the measure of how well the service level delivered matches customer expectation". According to the results of this study, the result of hypothesis testing showed the relationship between service quality and customer satisfaction was not significant (1.694). compare the result of this study with the previous study, it shows that study done by Amy and Amrik (2003) The customer compares his expectations with his experience of the service, perceived through the filter of the company's image. That is, the customer evaluation of service quality is based on a comparison, or confirmation rather than disconfirmation, with respect to some comparative term already held in mind by the customer at the pre-service stage. reinforced Grönroos' view that customers compare the expected service quality with what they actually receive; that is service quality expectation and perception.

### 5.8.7 Effect of service quality and income to customer satisfaction

According to the results of this study, the result of hypothesis testing showed the relationship between service quality and income to customer satisfaction was not significant (0.418). compare the result of this study with the previous study, it shows that study done by Amy and Amrik postulate service quality as dependent on two variables: perceived services customer actually receives from organization and expected services from the customer's previous experience or overall perception of the service. When expected service is higher than perceived service, service is said to be of low quality and when service expected is less than perceived service, overall service quality is considered to be high. Customer expectations vary depending on what kind of business the service is connected to. Expectations also vary depending on different positioning strategies of different service providers. his level of income is used with a standard of living that generally applies in the community concerned. Income

certainly greatly influences the amount of savings deposited by the public in banking institutions, in the sense that the greater the income, the greater the level of community savings, if the income increases in number then the public funds collected by banking institutions have a tendency to increase.

The consequence of service quality on purchaser satisfaction and they inveterate that the level of supposed service quality will touch the level of consumer's consummation. The greater service excellence increases customer pleasure, enhances profitability, and encourages maintainable competitive benefit. The matter of service quality and consumer satisfaction, as an outcome of the straight connotation with profits, has converted an important apprehension of the hospitality businesses. The mainstream of corporations have to estimate and augment their service quality in search of attracting more customers. Grounded on expectancy theory this connection can strongly be supported. This theory suggests that an individual will choose to behave in a definite way as they are inspired to choose a precise behavior over additional behaviors owing to what they assume the consequence of that designated performance will be which resources that tourist who are seen as customers would be pleased because they experience high quality of facilities that are reliable, reasonable, and responsive and declaration (Shaham S. 2016.)

### **5.8.8 Effect of service quality and interest rate to customer satisfaction**

According to the result of this study, the result of hypothesis testing showed the relationship between service quality and interest rate to customer satisfaction was a significant (2.040). compare the result of this study with the previous study, it shows that study done by (Kankam-kwarteng and Donkor. 2016). Service is said to be of low quality and when service expected is less than perceived service, overall service quality is considered to be high. The interest rate is the amount of interest paid per unit of time. In other words, people must pay for

the opportunity to borrow money. The cost of borrowing money, measured in dollar per year per dollar borrowed, is the interest rate. Interest is composition for use money. It is the excess paid or collected beyond the money (principal) borrowed or loaned. Determination of interest rates must pay attention to the inflation rate that occurs. Customers will be satisfied with the service and product that will be produced if the service or product can meet the needs and expectations of the customer, but if the service or product produced cannot meet the needs or desires of the customer, it will cause dissatisfaction for the customer. Customer satisfaction is the post-purchase evaluation of products or services taking into consideration the expectations. Researchers are divided over the antecedents of service quality and satisfaction.

Whilst some believe service quality leads to satisfaction. service quality leads to customer satisfaction. To achieve a high level of customer satisfaction, most researchers suggest that a high level of service quality should be delivered by the service provider as service quality is normally considered an antecedent of customer satisfaction. As service quality improves, the probability of customer satisfaction increases. Quality was only one of many dimensions on which satisfaction was based; satisfaction was also one potential influence on future quality perceptions. Service quality is an important tool to measure customer satisfaction. Empirical studies show that the quality of service offered is related to overall satisfaction of the customer. Reliability, tangibility and empathy positively related with customer satisfaction. Reliability, tangibility, responsiveness and assurance have significant and positive relationship with customer satisfaction. Meanwhile empathy was found to have a significant and negative effect on customer's satisfaction. Moreover, the result of indicates responsiveness is the only significant dimension of service quality that affects the satisfaction of customers positively



## CHAPTER VI

### CONCLUSION AND RECOMMENDATION

#### 6.1 Conclusion

In this study, many aspects of banking quality and risk perception were addressed. In effect of customer satisfaction in ALJUMHOURIYA bank in Libya through the Republic, the largest Libyan banks operating in the Libyan banking sector, so the study dealt with the banking service and its dimensions to the satisfaction of the customer and its characteristics in addition to the review of the types of service, Customer satisfaction and its importance in maintaining customers in a high level of satisfaction. The purpose of all this was to include the conceptual aspect of the study in order to clarify the study's products and the relationship between Study variables.

The main problem has been raised: "How does affect service quality and risk perception to customer satisfaction with moderating variables of income and interest rate? The practical aspect is the case study of the Republic of Libya, where it was discussed in this regard to review a set of tools and methods of statistical methods suitable for the purpose of processing and analysis of the questionnaire data, in addition to determine the direction of the views of individuals through the analysis of PLS data to know the attitudes of the respondents. There is an application of the quality of service concepts in the sample study bank.

Finally, we concluded that:

1. According to the results of this study, the result of hypothesis testing showed the relationship between risk perception and customer satisfaction was significant (5.252).

2. According to the results of this study, the result of hypothesis testing showed the relationship between service quality and customer satisfaction was not significant (1.694).

3. The effect of risk perception and service quality on customer satisfaction with the moderating variables of income and interest rate are:

a. The relationship between risk perception and income to customer satisfaction was not significant (0.907).

b. the relationship between risk perception and interest rate to customer satisfaction was not significant (1.878).

c. The relationship between service quality and income to customer satisfaction was not significant (0.418).

d. The relationship between service quality and interest rate to customer satisfaction was a significant (2.040)

4. The effect of moderating variable in this study on customer satisfaction are:

a. The relationship between income and customer satisfaction not significant (1.118).

b. The relationship between risk perception and customer satisfaction was significant (3.174).

## 6.2 Limitation

This research was conducted in Libya by selecting bank customers to be respondents. However, the real reason behind doing this research there is few studies focusing on the Libyan and on developing countries. Also, the study is lacked of some important data gathering techniques, such as interview.

Furthermore, research should consider conducting field research techniques, such as interviewing managers or employees and recording their views on a number of issues related to the application of a balanced scorecard in banking institutions. in

this case there are several negative variables including income, which has a negative impact on customer satisfaction as well as risk perception with a moderating variable of income has been negative on customer satisfaction and also service quality has a negative impact on customer satisfaction. This due to a political instability in Libya.

### 6.3 Recommendation

Based on the study and observation process, I formulate many of them that to Aljumhuriya bank in Libya.

#### 6.3.1 Recommendations to Aljumhuriya bank

Enable service organizations to benefit from quality of service measurement due to Their ability to provide specific data, which can be used in quality management. in a Using this information, quality of service can be maintained through continuous monitoring.

Ability to evaluate QoS and use this assessment to provide the best Understand how different dimensions affect overall service quality and achieve high satisfaction Organizations to design the service delivery process efficiently.

Organization can Increase efficiency through the distribution of resources and attention to staff through continuous training of the staff to upgrade them to achieve the objectives of the bank by aspiring to expand its base of the public as well as increasing attention to the five dimensions of the quality of banking services and the tangible and reliable and response and insurance and kindness to achieve the satisfaction of customers higher than the current level, and the quality of banking service The strengths and weaknesses must be known to the implementers. External Customers can be better managed if internal services are improved, and it is recommended That potential beneficiaries can easily take advantage of this.

Increase service efforts. However, it can provide and ultimately promote customer satisfaction, this research has noticed clear gaps between customer expectations and the perceptions of quality of service in Al Jumhuriya Bank, the gap between quality of service and risk perception, with moderating variables income and interest rate on customer satisfaction in Al Jumhuriya Bank.

Through the study, the following results became clear:

The bank should explain to its customers the state of political instability of Libya that does not produce realistic and real results compared to instances of stability.

The employees of Al Jumhuriya Bank should intensify their training courses to raise the quality in the bank to achieve high satisfaction.

To clarify all banking transactions for its customers, free and non-free to understand the customer to develop services in the bank.

#### 6.4 Suggestion

1. Further research on the challenges facing the administration in the application of service quality and risk perception on customer satisfaction.
2. Further research on the challenges facing the administration in the application of service quality and risk perception on customer satisfaction to compare the public and private banks sectors in Libya or other countries.
3. The new researcher focuses on adding a new variable.
4. Compare two different countries with a different culture for example Libya – Italy.
5. Comparison of two or more countries in a stable state country.
6. Application of this study on Libya in the case of stability with the same variable.

## CHAPTER VI

### CONCLUSION AND RECOMMENDATION

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Dear Respondent

I am a masterdegree student: Faisel Mohammed Ehmied, studying in Economic and Business, University of Brawijaya, Indonesia. Currently I am preparing a master degree research entitled:

The Effect Of Service Quality And Risk Perception On Customer Satisfaction, With The Moderating Variable Of Income And Interest Rate(Case Study At Al Jumhuriya Bank In Libya)

This research seeks to study and measure the effect of service quality and risk perception on customer satisfaction, with the moderating variable of income and interest rate. However, this object cannot be achieved without your cooperation in completing the attached questionnaires. The questionnaires have been designed carefully for this study with current knowledge in this area, including recent empirical studies.

Please answer all questions and make any additional comments using available space if it is necessary. I would like to assure you that all information collected will be kept strictly confidential and will only be used for research purposes. If you need further information or clarification regarding this study, please do not hesitate to contact me, in the addresses below

*Thank you for your help in completing this questionnaire*

Faisel Mohammed Ehmied

Master degree students in Economic and Business

University of Brawijaya, Indonesia

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The Effect Of Service Quality And Risk Perception On Customer Satisfaction, With The Moderating Variable Of Income And Interest Rate (Case Study At Al Jumhuriya Bank In Libya)

Part one:

Please select one of the answers from the follow:

Gender:  Male  Female

Age:

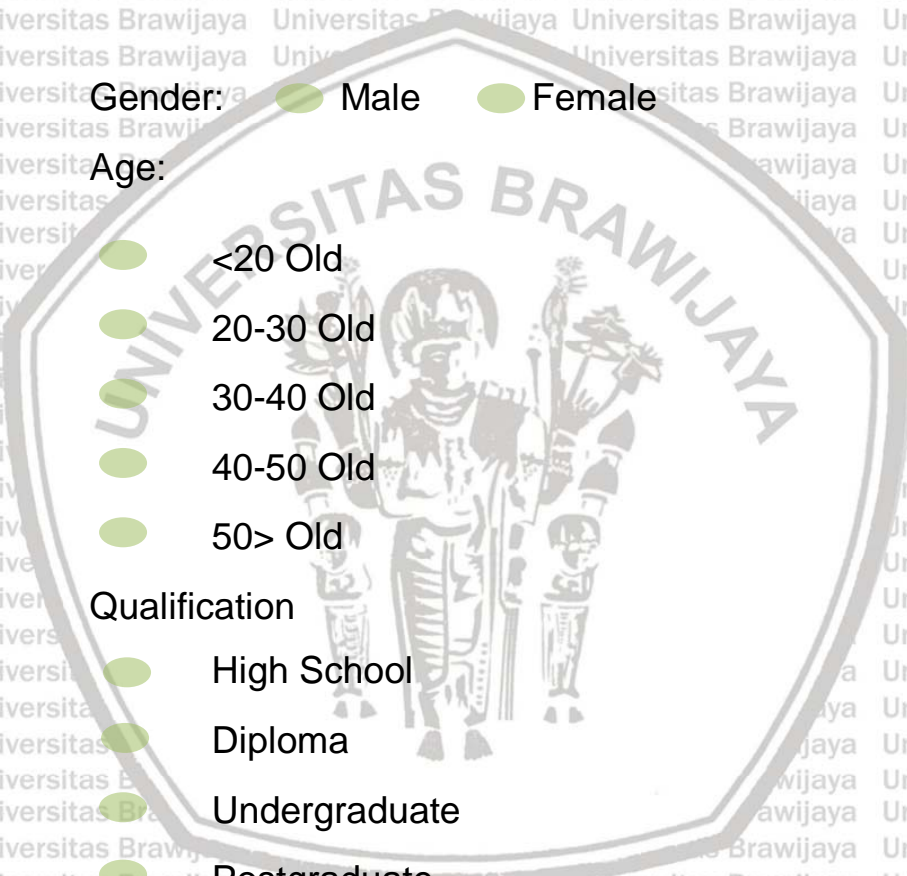
- <20 Old
- 20-30 Old
- 30-40 Old
- 40-50 Old
- 50> Old

Qualification

- High School
- Diploma
- Undergraduate
- Postgraduate

Income / month

- Low income group (Less than 750 Dinar)
- Middle income group (More than 1,200 Dinar)
- High income group (More than 2.400 Dinar)





Part two:

Please make circle {O} for the suitable answer with you from next:

Strongly agree	Agree	Natural	Disagree	Strongly disagree
SA	A	N	D	SD
5	4	3	2	1

**1. Service Quality**

No	Questions	Response				
		SA	A	N	D	SD
<b>Tangibles</b>						
1.	The bank has a comfortable and clean waiting room.	5	4	3	2	1
2.	The bank has adequate and extensive parking facilities.	5	4	3	2	1
3.	The bank room is always neatly arranged.	5	4	3	2	1
4.	Technology equipment and equipment such as computers, telephones, air conditioners in banks are sufficient.	5	4	3	2	1
5.	The appearance of bank employees is always neat and pleasing .	5	4	3	2	1
<b>Reliability</b>						
6.	Bank employees serve customer transactions quickly, accurately and thoroughly.	5	4	3	2	1
7.	Bank customer service provides information to prospective customers clearly.	5	4	3	2	1
8.	Bank service hours are carried out in a timely manner (book time, rest, and closing time).	5	4	3	2	1
9.	The bank provides Mobile ATM facilities .	5	4	3	2	1
10.	The bank network is very broad .	5	4	3	2	1

<i>Responsiveness</i>						
11.	The bank call center is easy to contact.	5	4	3	2	1
12.	Bank employees respond to transaction requests and provide my information well and quickly.	5	4	3	2	1
13.	Customer service banks provide services that are clear, polite, friendly and smiling in serving customers.	5	4	3	2	1
14.	The bank security guards give direction to customers when they will make transactions.	5	4	3	2	1
15.	The openness of employees in accepting suggestions is very good.	5	4	3	2	1
<i>Assurance</i>						
16.	I can collect my funds any time I need them through the nearest ATM network.	5	4	3	2	1
17.	Customer service is able to convince customers that bank savings products are competitive products.	5	4	3	2	1
18.	The bank guarantees the confidentiality of customers' transactions.	5	4	3	2	1
19.	Customers feel safe depositing funds at the bank.	5	4	3	2	1
20.	Employees always foster good relationships with customers.	5	4	3	2	1
<i>Empathy</i>						
21.	Bank employees are able to provide services without differentiating the customer's economic condition.	5	4	3	2	1
22.	Bank employees always give greetings when they finish serving the transaction.	5	4	3	2	1
23.	Customer service banks take the customer's interests seriously.	5	4	3	2	1
24.	Customer service banks always serve customers with a sense of family.	5	4	3	2	1
25.	Customer service responds well to customers who complain.	5	4	3	2	1

2. Risk Perception

No	Questions	Response				
		SA	A	N	D	SD
<b>Financial Risk</b>						
1.	Interest rate of deposit/ saving from the bank is good.	5	4	3	2	1
2.	I have experienced fraud when making transactions at this bank.	5	4	3	2	1
<b>Social Risk</b>						
3.	I'm worried about being teased by friends for using this bank product.	5	4	3	2	1
4.	Friends or family do recommend other banks.	5	4	3	2	1
<b>Performance Risk</b>						
5.	The bank product that I use is in accordance with the one provided by the bank.	5	4	3	2	1
6.	The bank services and products that I use have never experienced problems or damage.	5	4	3	2	1
<b>Time-loss Risk</b>						
7.	When I use the services and products of this bank, the bank responds quickly.	5	4	3	2	1
8.	Transactions are completed on time.	5	4	3	2	1
<b>Physical risk</b>						
9.	Making transactions at this bank is not tiring.	5	4	3	2	1
10.	Products and services provide comfort to customers.	5	4	3	2	1
<b>Psychological risk</b>						
11.	I am happy to use this bank's products and services.	5	4	3	2	1
12.	I am proud when using this bank product.	5	4	3	2	1



### 3. Customer Satisfaction

No	Questions	Response				
		SA	A	N	D	SD
1.	I am satisfied with the services transactions provided by the bank.	5	4	3	2	1
2.	I feel satisfied with the services provided by the bank.	5	4	3	2	1
3.	I feel satisfied with the product provided by the bank.	5	4	3	2	1
4.	I feel satisfied with the value provided by the bank.	5	4	3	2	1
5.	I feel satisfied with the employee performance in the bank.	5	4	3	2	1
6.	I already feel satisfied and have no desire to move to another bank	5	4	3	2	1

Notes:

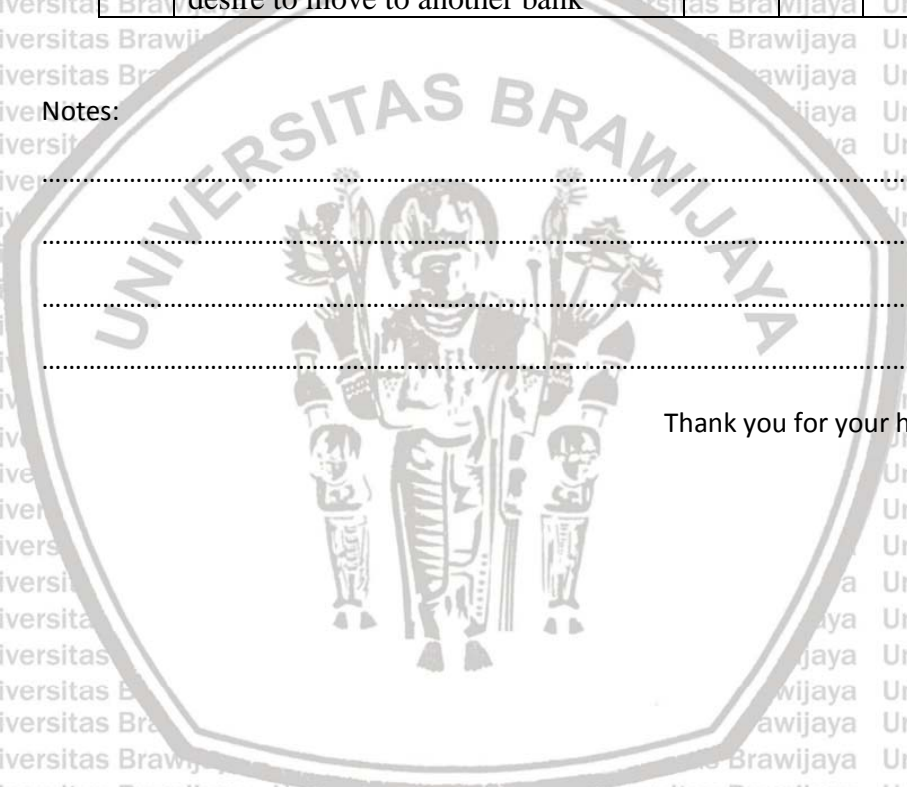
.....

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.....

.....

Thank you for your help and support



عزيزي المستيبين

أنا طالب في مرحلة الماجستير: فيصل محمد إحميد ، أدرس في كلية الاقتصاد والتجارة ، جامعة براويجيا ، إندونيسيا . أقوم حاليا بإعداد بحث درجة الماجستير بعنوان:

أثر جودة الخدمة وإدراك المخاطر على رضا العملاء ، مع تغيير معدل الدخل ومعدل الفائدة (دراسة حالة في بنك الجمهورية في ليبيا)

يسعى هذا البحث إلى دراسة وقياس تأثير جودة الخدمة وإدراك المخاطر على رضا العملاء ، مع تغيير معدل الدخل ومعدل الفائدة. ومع ذلك ، لا يمكن تحقيق هذا الهدف بدون تعاونك في إكمال الاستبيانات المرفقة. وقد تم تصميم الاستبيانات بعناية لهذه الدراسة مع المعرفة الحالية في هذا المجال ، بما في ذلك الدراسات التجريبية الحديثة.

يرجى الإجابة على جميع الأسئلة وإبداء أي تعليقات إضافية باستخدام المساحة المتاحة إذا لزم الأمر. أود أن أؤكد لك أن جميع المعلومات التي تم جمعها ستظل سرية للغاية وسيتم استخدامها فقط لأغراض البحث. إذا كنت بحاجة إلى مزيد من المعلومات أو التوضيحات بخصوص هذه الدراسة ، فيرجى عدم التردد في الاتصال بي ، في العناوين أدناه

شكرا للمساعدتكم في استكمال هذا الاستبيان

فيصل محمد إحميد  
طالب في درجة الماجستير في الاقتصاد والتجارة  
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أثر جودة الخدمة وإدراك المخاطر على رضا العملاء ، مع تغير معدل الإيرادات ومعدل الفائدة  
(دراسة حالة في بنك الجمهورية في ليبيا)

الجزء الأول:

يرجى اختيار واحد من الإجابات من التالي:

الجنس: ذكر  أنثي

العمر:

<20 سنة

20-30 Old

30-40 Old

40-50 Old

50 > Old

المؤهلات

شهادة ثانوية

معهد عالي

طالب جامعي

طالب في الدراسات العليا

الدخل / شهريا

مجموعة دخل منخفض (اقل من 750 دينار)

مجموعة دخل متوسط (اكثر من 1,200 دينار)

مجموعة دخل عالي (اكثر من 2.400 دينار)



الجزء الثاني.  
الرجاء وضع دائرة للإجابة المناسبة من التالي:

لا أوافق بشدة	تعارض	طبيعي << صفة	يوافق على	موافق بشدة
SD	D	N	A	SA
1	2	3	4	5

### جودة الخدمة

رقم	الأسئلة				
	SD	D	N	A	SA
<b>الملموسات</b>					
1.					
2.					
3.					
4.					
5.					
<b>الموثوقية</b>					
6.					
7.					
8.					
9.					
10.					
<b>إستجابة</b>					
11.					
12.					
13.					
14.					
15.					

تأمين					
1	2	3	4	5	16. يمكنني جمع أموالني في أي وقت أحتاج إليها من خلال أقرب شبكة ماكينة الصراف الآلي.
1	2	3	4	5	17. خدمة العملاء قادرة على إقناع العملاء بأن منتجات ادخار البنوك هي منتجات تنافسية.
1	2	3	4	5	18. يضمن البنك سرية معاملات العملاء.
1	2	3	4	5	19. يشعر العملاء بأمان إيداع الأموال في البنك.
1	2	3	4	5	20. يعمل الموظفون دائمًا على تعزيز العلاقات الجيدة مع العملاء.
العطف					
1	2	3	4	5	21. يمكن لموظفي البنك تقديم الخدمات دون التفريق بين الحالة الاقتصادية للعميل.
1	2	3	4	5	22. يقدم موظفو البنك دائمًا التحية عند انتهاء التعامل مع المعاملة.
1	2	3	4	5	23. تأخذ بنوك خدمة العملاء اهتمامات العميل على محمل الجد.
1	2	3	4	5	24. تخدم بنوك خدمة العملاء دائمًا العملاء الذين لديهم إحساس بالعائلة.
1	2	3	4	5	25. تستجيب خدمة العملاء بشكل جيد للعملاء الذين يشتكون.

### الدراك المخاطر

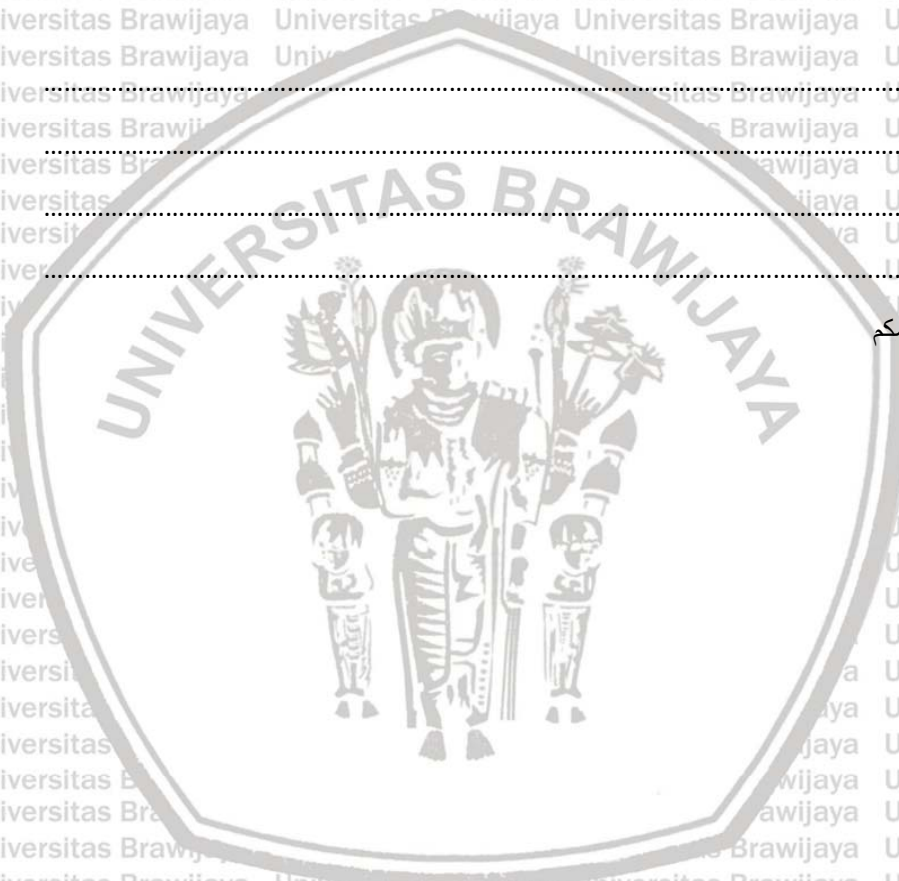
استجابة					الأسئلة	No
SD	D	N	A	SA		
مخاطرة مالية						
1	2	3	4	5	1. سعر الفائدة على الودائع / الادخار من البنك جيدة.	
1	2	3	4	5	2. يوجد الغش عند إجراء المعاملات في هذا البنك.	
خطر اجتماعي						
1	2	3	4	5	3. أنا قلق من التعرض للأذى من قبل الأصدقاء لاستخدام هذا المنتج البنكي.	
1	2	3	4	5	4. لأصدقاء أو العائلة يوصون ببنوك أخرى.	
مخاطر الأداء						
1	2	3	4	5	5. إن المنتج المصرفي الذي أستخدمة يتوافق مع المنتج المقدم من البنك.	
1	2	3	4	5	6. لم تتعرض الخدمات والمنتجات المصرفية التي استخدمها لأي مشكل أو أضرار.	
خطر خسارة الوقت						
1	2	3	4	5	7. عندما أستخدم خدمات ومنتجات هذا البنك ، يستجيب البنك بسرعة.	
1	2	3	4	5	8. اكتمال المعاملات في الوقت المحدد.	
خطر بدني						
1	2	3	4	5	9. جعل المعاملات في هذا البنك ليس متعباً.	
1	2	3	4	5	10. توفر المنتجات والخدمات الراحة للعملاء.	
خطر نفسي						
1	2	3	4	5	11. أنا سعيد باستخدام منتجات وخدمات هذا البنك.	
1	2	3	4	5	12. أنا فخور عند استخدام هذا المنتج المصرفي.	



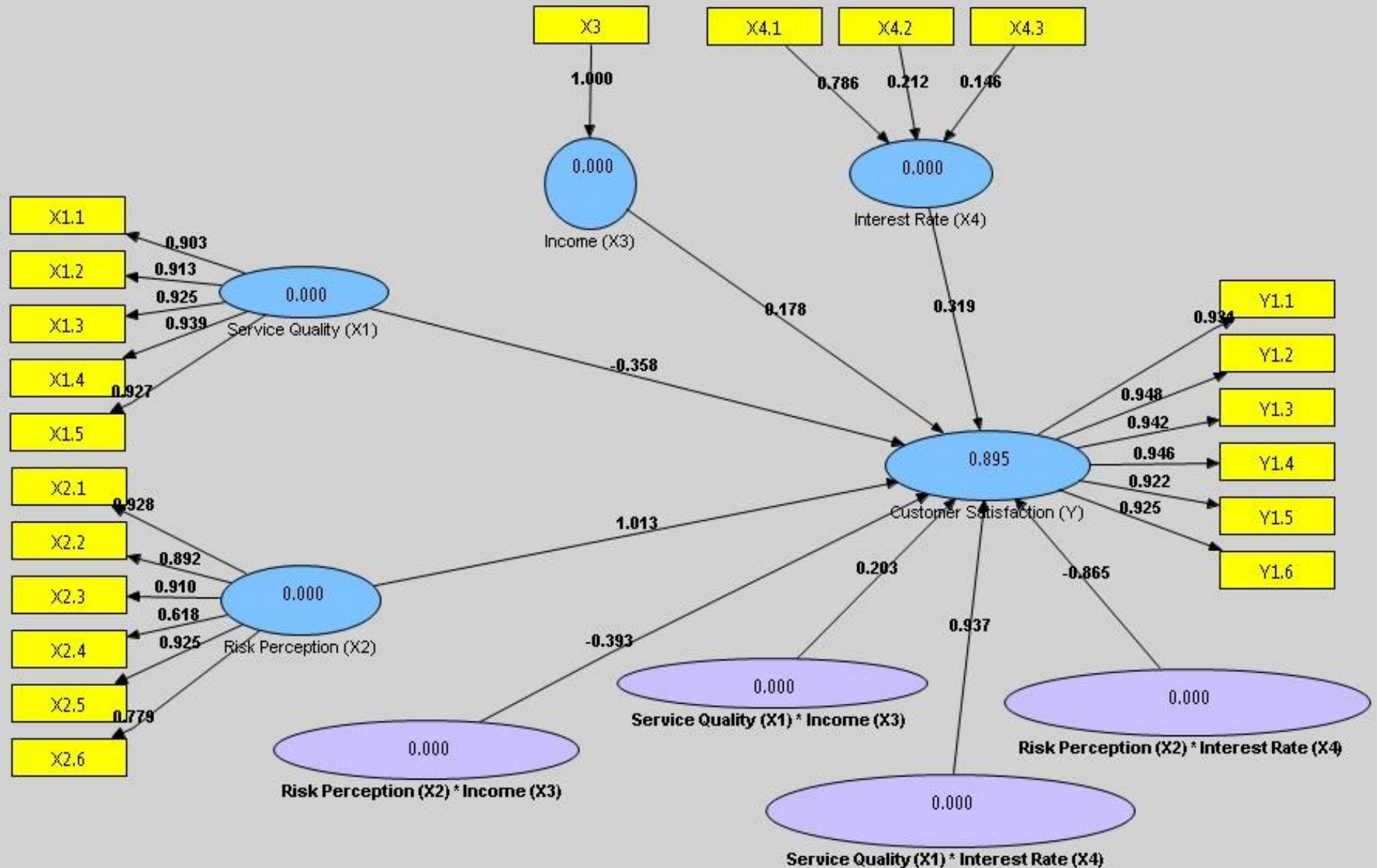
## رضا العملاء

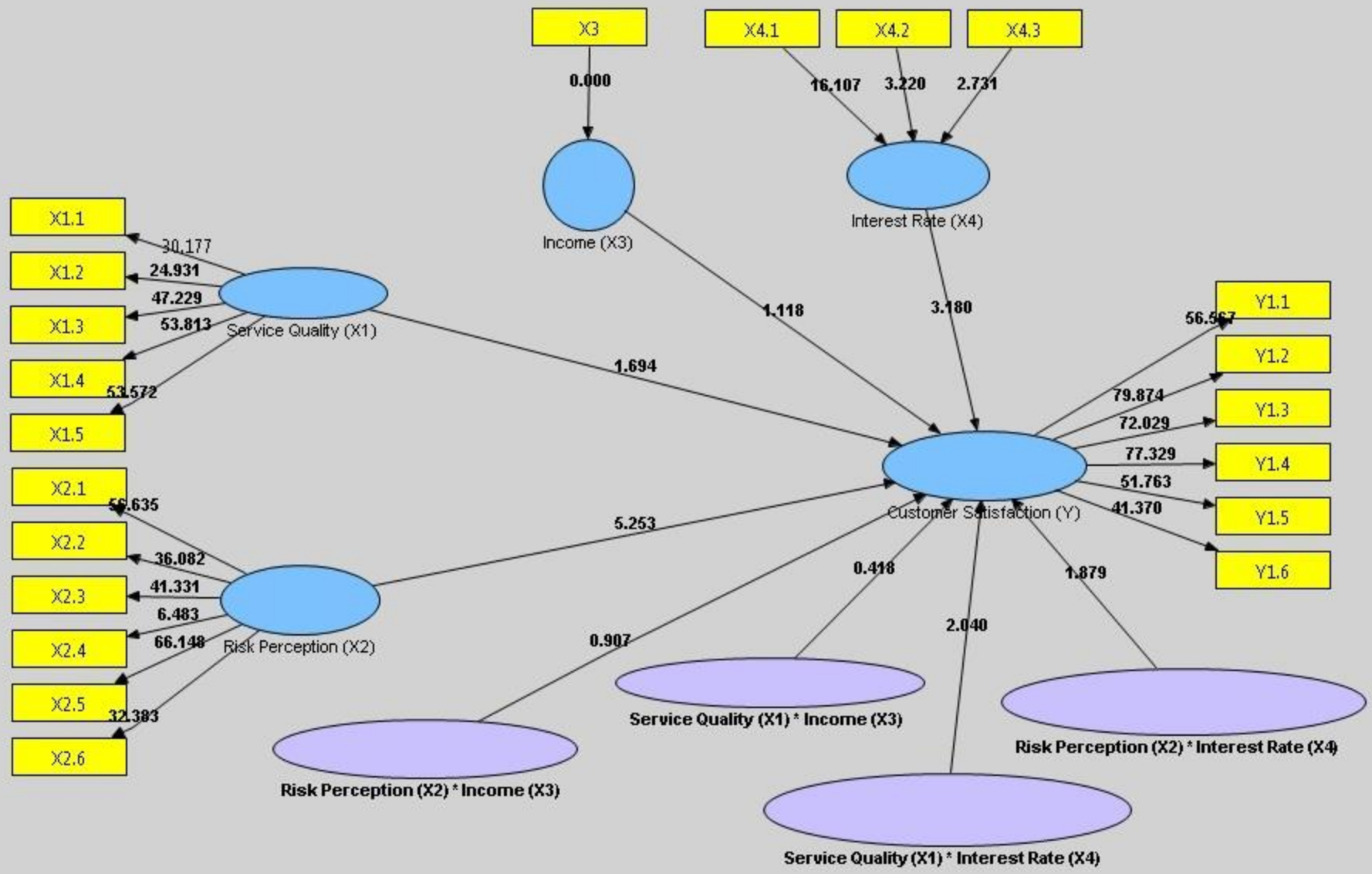
استجابة					الأسئلة	No
SD	D	N	A	SA		
1	2	3	4	5	أنا راض عن الخدمات التي يقدمها البنك.	1.
1	2	3	4	5	أشعر بالرضا عن الخدمات التي يقدمها البنك.	2.
1	2	3	4	5	أشعر بالرضا عن المنتج المقدم من البنك.	3.
1	2	3	4	5	أشعر بالرضا عن القيمة المقدمة من البنك.	4.
1	2	3	4	5	أشعر بالرضا عن أداء الموظف في البنك.	5.
1	2	3	4	5	أشعر بالفعل بالرضا وليس لدي الرغبة في الانتقال إلى بنك آخر.	6.

ملاحظات



شكرا للمساعدتكم ودعمكم





**PLS**  
**Quality Criteria**  
**Overview**

	<b>AVE</b>	<b>Composite Reliability</b>	<b>R Square</b>	<b>Cronbachs Alpha</b>
<b>Customer Satisfaction (Y)</b>	0.875876	0.976923	0.894938	0.971631
<b>Income (X3)</b>				
<b>Interest Rate (X4)</b>				
<b>Perception (X2)</b>	0.721342	0.938501		0.918826
<b>Risk Perception (X2) * Income (X3)</b>	0.918047	0.985324		0.981944
<b>Risk Perception (X2) * Interest Rate (X4)</b>	0.758951	0.982638		0.981282
<b>Service Quality (X1)</b>	0.849248	0.965708		0.955628
<b>Service Quality (X1) * Income (X3)</b>	0.965669	0.992940		0.991106
<b>Service Quality (X1) * Interest Rate (X4)</b>	0.780548	0.981596		0.979973

	<b>Communality</b>	<b>Redundancy</b>
<b>Customer Satisfaction (Y)</b>	0.875876	0.091984
<b>Income (X3)</b>	1.000000	
<b>Interest Rate (X4)</b>	0.612083	
<b>Perception (X2)</b>	0.721342	
<b>Risk Perception (X2) * Income (X3)</b>	0.918047	

<b>Risk Perception (X2) * Interest Rate (X4)</b>	0.758951
<b>Service Quality (X1)</b>	0.849248
<b>Service Quality (X1) * Income (X3)</b>	0.965669
<b>Service Quality (X1) * Interest Rate (X4)</b>	0.780548

**Redundancy**

	<b>redundancy</b>
<b>Customer Satisfaction (Y)</b>	0.091984
<b>Income (X3)</b>	
<b>Interest Rate (X4)</b>	
<b>Risk Perception (X2)</b>	
<b>Risk Perception (X2) * Income (X3)</b>	
<b>Risk Perception (X2) * Interest Rate (X4)</b>	
<b>Service Quality (X1)</b>	
<b>Service Quality (X1) * Income (X3)</b>	
<b>Service Quality (X1) * Interest Rate (X4)</b>	



**Cronbachs Alpha**

	<b>Cronbachs Alpha</b>
<b>Customer Satisfaction (Y)</b>	0.971631
<b>Income (X3)</b>	
<b>Interest Rate (X4)</b>	
<b>Perception (X2)</b>	0.918826
<b>Risk Perception (X2) * Income (X3)</b>	0.981944
<b>Risk Perception (X2) * Interest Rate (X4)</b>	0.981282
<b>Service Quality (X1)</b>	0.955628
<b>Service Quality (X1) * Income (X3)</b>	0.991106
<b>Service Quality (X1) * Interest Rate (X4)</b>	0.979973

**Latent Variable Correlations**

	<b>Customer Satisfaction (Y)</b>	<b>Income (X3)</b>	<b>Interest Rate (X4)</b>	<b>Perception (X2)</b>
<b>Customer Satisfaction (Y)</b>	1.000000			
<b>Income (X3)</b>	0.384404	1.000000		
<b>Interest Rate (X4)</b>	0.882435	0.329458	1.000000	
<b>Perception (X2)</b>	0.885955	0.359662	0.804794	1.000000
<b>Risk Perception (X2) *</b>	0.660675	0.898317	0.602469	0.701571

<b>Income (X3)</b>				
<b>Risk Perception (X2) * Interest Rate (X4)</b>	0.872921	0.446928	0.918068	0.878758
<b>Service Quality (X1)</b>	0.876274	0.268130	0.822011	0.873436
<b>Service Quality (X1) * Income (X3)</b>	0.685283	0.890448	0.633334	0.662979
<b>Service Quality (X1) * Interest Rate (X4)</b>	0.893112	0.418414	0.945715	0.817630

	<b>Risk Perception (X2) * Income (X3)</b>	<b>Risk Perception (X2) * Interest Rate (X4)</b>	<b>Service Quality (X1)</b>	<b>Service Quality (X1) * Income (X3)</b>
<b>Customer Satisfaction (Y)</b>				
<b>Income (X3)</b>				
<b>Interest Rate (X4)</b>				
<b>Risk Perception (X2)</b>				
<b>Risk Perception (X2) * Income (X3)</b>	1.000000			
<b>Risk Perception (X2) * Interest Rate (X4)</b>	0.724325	1.000000		
<b>Service Quality (X1)</b>	0.568039	0.772146	1.000000	
<b>Service Quality (X1) * Income (X3)</b>	0.968213	0.699468	0.647749	1.000000



<b>Service Quality (X1) * Interest Rate (X4)</b>	0.666392	0.954597	0.852863	0.712652
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	<b>Service Quality (X1) * Interest Rate (X4)</b>
<b>Customer Satisfaction (Y)</b>	
<b>Income (X3)</b>	
<b>Interest Rate (X4)</b>	
<b>Risk Perception (X2)</b>	
<b>Risk Perception (X2) * Income (X3)</b>	
<b>Risk Perception (X2) * Interest Rate (X4)</b>	
<b>Service Quality (X1)</b>	
<b>Service Quality (X1) * Income (X3)</b>	
<b>Service Quality (X1) * Interest Rate (X4)</b>	1.000000

**R Square**

	<b>R Square</b>
<b>Customer Satisfaction (Y)</b>	0.894938
<b>Income (X3)</b>	
<b>Interest Rate (X4)</b>	





<b>Perception (X2)</b>	
<b>Risk Perception (X2) * Income (X3)</b>	
<b>Risk Perception (X2) * Interest Rate (X4)</b>	
<b>Service Quality (X1)</b>	
<b>Service Quality (X1) * Income (X3)</b>	
<b>Service Quality (X1) * Interest Rate (X4)</b>	

**Cross Loadings**

	<b>Customer Satisfaction (Y)</b>	<b>Income (X3)</b>	<b>Interest Rate (X4)</b>	<b>Perception (X2)</b>
<b>X1.1</b>	0.753419	0.225949	0.701020	0.760963
<b>X1.1*X3</b>	0.657713	0.859966	0.599136	0.638234
<b>X1.1*X4.1</b>	0.863670	0.299437	0.894840	0.833163
<b>X1.1*X4.2</b>	0.755250	0.353534	0.801883	0.672565
<b>X1.1*X4.3</b>	0.721223	0.431987	0.759528	0.626502
<b>X1.2</b>	0.751536	0.243413	0.730750	0.785386
<b>X1.2*X3</b>	0.669503	0.865097	0.632019	0.665198
<b>X1.2*X4.1</b>	0.840588	0.323809	0.889988	0.831698
<b>X1.2*X4.2</b>	0.767697	0.391820	0.825477	0.703819
<b>X1.2*X4.3</b>	0.709597	0.458267	0.760825	0.641844
<b>X1.3</b>	0.818655	0.234691	0.779469	0.812059
<b>X1.3*X3</b>	0.680277	0.874100	0.633293	0.656591
<b>X1.3*X4.1</b>	0.878561	0.311406	0.923768	0.840691
<b>X1.3*X4.2</b>	0.762541	0.348356	0.818549	0.676155

<b>X1.3*X4.3</b>	0.714702	0.449226	0.766877	0.623268
<b>X1.4</b>	0.833642	0.216859	0.794848	0.838391
<b>X1.4*X3</b>	0.684903	0.876261	0.636671	0.664386
<b>X1.4*X4.1</b>	0.885832	0.298611	0.935065	0.856572
<b>X1.4*X4.2</b>	0.748794	0.331944	0.812659	0.669847
<b>X1.4*X4.3</b>	0.718990	0.441232	0.773798	0.629596
<b>X1.5</b>	0.869322	0.309895	0.775064	0.823058
<b>X1.5*X3</b>	0.674215	0.899508	0.610059	0.632781
<b>X1.5*X4.1</b>	0.901954	0.337299	0.927533	0.846387
<b>X1.5*X4.2</b>	0.759369	0.371223	0.802615	0.654304
<b>X1.5*X4.3</b>	0.725645	0.461809	0.764325	0.617003
<b>X2.1</b>	0.832423	0.368471	0.755058	0.927961
<b>X2.1*X3</b>	0.669062	0.883461	0.607311	0.701874
<b>X2.1*X4.1</b>	0.879693	0.384185	0.896889	0.917840
<b>X2.1*X4.2</b>	0.756960	0.392184	0.806606	0.742614
<b>X2.1*X4.3</b>	0.719560	0.491328	0.753742	0.697680
<b>X2.2</b>	0.787235	0.293951	0.709102	0.892226
<b>X2.2*X3</b>	0.622850	0.890678	0.564719	0.663052
<b>X2.2*X4.1</b>	0.869177	0.341733	0.897249	0.910091
<b>X2.2*X4.2</b>	0.736006	0.356545	0.783733	0.722136
<b>X2.2*X4.3</b>	0.690139	0.461706	0.733444	0.669594
<b>X2.3</b>	0.846015	0.302241	0.741141	0.909851
<b>X2.3*X3</b>	0.689644	0.868178	0.620180	0.709067
<b>X2.3*X4.1</b>	0.900101	0.357988	0.898049	0.918119
<b>X2.3*X4.2</b>	0.763244	0.360488	0.793060	0.726329
<b>X2.3*X4.3</b>	0.734426	0.481523	0.759236	0.692945
<b>X2.4</b>	0.540467	0.118008	0.534929	0.617820
<b>X2.4*X3</b>	0.552021	0.883283	0.508476	0.569009
<b>X2.4*X4.1</b>	0.779806	0.228381	0.863913	0.792783
<b>X2.4*X4.2</b>	0.690182	0.301713	0.772037	0.639950
<b>X2.4*X4.3</b>	0.648445	0.408072	0.716534	0.601993
<b>X2.5</b>	0.826342	0.371074	0.742291	0.924720
<b>X2.5*X3</b>	0.662606	0.881043	0.599576	0.698468
<b>X2.5*X4.1</b>	0.882957	0.395634	0.893626	0.924857
<b>X2.5*X4.2</b>	0.755396	0.404009	0.797154	0.744303
<b>X2.5*X4.3</b>	0.715849	0.484176	0.746186	0.695460



<b>X2.6</b>	0.622462	0.341043	0.584636	0.778609
<b>X2.6*X3</b>	0.586221	0.759852	0.551948	0.679952
<b>X2.6*X4.1</b>	0.725295	0.368181	0.753521	0.828711
<b>X2.6*X4.2</b>	0.665600	0.381422	0.738631	0.712331
<b>X2.6*X4.3</b>	0.640666	0.455682	0.687107	0.684074
<b>X3</b>	0.384404	1.000000	0.329458	0.359662
<b>X4.1</b>	0.851338	0.255001	0.964760	0.801345
<b>X4.2</b>	0.609237	0.316079	0.690404	0.499850
<b>X4.3</b>	0.577864	0.425580	0.654852	0.473911
<b>Y1.1</b>	0.931092	0.391083	0.827577	0.856818
<b>Y1.2</b>	0.948246	0.305753	0.813704	0.825482
<b>Y1.3</b>	0.941855	0.370934	0.833911	0.816800
<b>Y1.4</b>	0.946470	0.362097	0.819360	0.812964
<b>Y1.5</b>	0.922034	0.382718	0.835227	0.830411
<b>Y1.6</b>	0.925262	0.344106	0.824296	0.830859

	<b>Risk Perception (X2) * Income (X3)</b>	<b>Risk Perception (X2) * Interest Rate (X4)</b>	<b>vice Quality (X1)</b>	<b>Service Quality (X1) * Income (X3)</b>
<b>X1.1</b>	0.483519	0.650688	0.902565	0.571188
<b>X1.1*X3</b>	0.932424	0.658283	0.639783	0.973158
<b>X1.1*X4.1</b>	0.584472	0.810469	0.912028	0.641934
<b>X1.1*X4.2</b>	0.541256	0.845782	0.696925	0.589355
<b>X1.1*X4.3</b>	0.596420	0.825615	0.652930	0.636403
<b>X1.2</b>	0.526713	0.680181	0.913149	0.597490
<b>X1.2*X3</b>	0.957403	0.697708	0.648611	0.984422
<b>X1.2*X4.1</b>	0.614689	0.817709	0.898862	0.659675
<b>X1.2*X4.2</b>	0.594947	0.882711	0.710881	0.630781
<b>X1.2*X4.3</b>	0.631168	0.842405	0.643468	0.654727
<b>X1.3</b>	0.521381	0.720521	0.924947	0.595599
<b>X1.3*X3</b>	0.953753	0.693016	0.640783	0.986438
<b>X1.3*X4.1</b>	0.600763	0.839999	0.903335	0.650501
<b>X1.3*X4.2</b>	0.544156	0.859405	0.685390	0.584403
<b>X1.3*X4.3</b>	0.609916	0.834534	0.632625	0.641764
<b>X1.4</b>	0.515720	0.743721	0.939480	0.585214



<b>X1.4*X3</b>	0.956013	0.700393	0.644760	0.987249
<b>X1.4*X4.1</b>	0.595583	0.854647	0.913643	0.643657
<b>X1.4*X4.2</b>	0.528964	0.854041	0.675080	0.567361
<b>X1.4*X4.3</b>	0.605401	0.842810	0.637024	0.637022
<b>X1.5</b>	0.566019	0.753980	0.927159	0.632740
<b>X1.5*X3</b>	0.957385	0.686668	0.608895	0.982091
<b>X1.5*X4.1</b>	0.618782	0.856085	0.906628	0.665813
<b>X1.5*X4.2</b>	0.548314	0.853777	0.663647	0.585651
<b>X1.5*X4.3</b>	0.615291	0.838146	0.627277	0.645329
<b>X2.1</b>	0.667005	0.820982	0.830211	0.647988
<b>X2.1*X3</b>	0.984642	0.720516	0.587259	0.966382
<b>X2.1*X4.1</b>	0.689775	0.900849	0.844092	0.677536
<b>X2.1*X4.2</b>	0.610227	0.905458	0.648781	0.599875
<b>X2.1*X4.3</b>	0.678829	0.885101	0.598812	0.658330
<b>X2.2</b>	0.601036	0.762172	0.794772	0.578909
<b>X2.2*X3</b>	0.973235	0.677666	0.544620	0.952905
<b>X2.2*X4.1</b>	0.659187	0.881041	0.849503	0.650934
<b>X2.2*X4.2</b>	0.576787	0.880251	0.629925	0.566332
<b>X2.2*X4.3</b>	0.644995	0.859932	0.577505	0.626197
<b>X2.3</b>	0.617464	0.793769	0.821192	0.598467
<b>X2.3*X3</b>	0.978914	0.726613	0.595758	0.959912
<b>X2.3*X4.1</b>	0.671518	0.893143	0.855277	0.662672
<b>X2.3*X4.2</b>	0.581512	0.885812	0.639898	0.572786
<b>X2.3*X4.3</b>	0.669211	0.880883	0.606650	0.653776
<b>X2.4</b>	0.352676	0.521063	0.567782	0.320798
<b>X2.4*X3</b>	0.913601	0.605903	0.456344	0.883824
<b>X2.4*X4.1</b>	0.525957	0.786869	0.773469	0.521753
<b>X2.4*X4.2</b>	0.494867	0.838411	0.569034	0.485886
<b>X2.4*X4.3</b>	0.573246	0.810246	0.533533	0.556853
<b>X2.5</b>	0.671767	0.808095	0.834396	0.655079
<b>X2.5*X3</b>	0.982958	0.711652	0.585644	0.964673
<b>X2.5*X4.1</b>	0.704104	0.900389	0.851423	0.691817
<b>X2.5*X4.2</b>	0.620140	0.902654	0.651702	0.610398
<b>X2.5*X4.3</b>	0.674263	0.877718	0.600832	0.654745
<b>X2.6</b>	0.624346	0.737285	0.538243	0.516124
<b>X2.6*X3</b>	0.912377	0.713779	0.476525	0.829019



<b>X2.6*X4.1</b>	0.667958	0.844118	0.636190	0.583622
<b>X2.6*X4.2</b>	0.614617	0.883522	0.536692	0.548583
<b>X2.6*X4.3</b>	0.673834	0.854306	0.503684	0.596988
<b>X3</b>	0.898317	0.446928	0.268130	0.890448
<b>X4.1</b>	0.550935	0.826767	0.840372	0.584452
<b>X4.2</b>	0.437500	0.757262	0.462788	0.454324
<b>X4.3</b>	0.526534	0.739338	0.435584	0.533113
<b>Y1.1</b>	0.664261	0.819219	0.856566	0.691093
<b>Y1.2</b>	0.575891	0.819493	0.789034	0.581558
<b>Y1.3</b>	0.623510	0.815105	0.803409	0.643514
<b>Y1.4</b>	0.608255	0.818719	0.799369	0.626588
<b>Y1.5</b>	0.635243	0.815520	0.839198	0.674060
<b>Y1.6</b>	0.600427	0.812915	0.830628	0.628409

	<b>Service Quality (X1) * Interest Rate (X4)</b>
<b>X1.1</b>	0.737669
<b>X1.1*X3</b>	0.680216
<b>X1.1*X4.1</b>	0.869439
<b>X1.1*X4.2</b>	0.887095
<b>X1.1*X4.3</b>	0.870378
<b>X1.2</b>	0.749829
<b>X1.2*X3</b>	0.704372
<b>X1.2*X4.1</b>	0.862242
<b>X1.2*X4.2</b>	0.910020
<b>X1.2*X4.3</b>	0.865978
<b>X1.3</b>	0.793912
<b>X1.3*X3</b>	0.706583
<b>X1.3*X4.1</b>	0.890137
<b>X1.3*X4.2</b>	0.892142
<b>X1.3*X4.3</b>	0.869528
<b>X1.4</b>	0.812965
<b>X1.4*X3</b>	0.713045
<b>X1.4*X4.1</b>	0.903050
<b>X1.4*X4.2</b>	0.884231

<b>X1.4*X4.3</b>	0.877308
<b>X1.5</b>	0.827593
<b>X1.5*X3</b>	0.696809
<b>X1.5*X4.1</b>	0.907192
<b>X1.5*X4.2</b>	0.887132
<b>X1.5*X4.3</b>	0.874594
<b>X2.1</b>	0.777895
<b>X2.1*X3</b>	0.674051
<b>X2.1*X4.1</b>	0.869231
<b>X2.1*X4.2</b>	0.870453
<b>X2.1*X4.3</b>	0.848680
<b>X2.2</b>	0.719397
<b>X2.2*X3</b>	0.630662
<b>X2.2*X4.1</b>	0.855726
<b>X2.2*X4.2</b>	0.846744
<b>X2.2*X4.3</b>	0.827863
<b>X2.3</b>	0.759551
<b>X2.3*X3</b>	0.684011
<b>X2.3*X4.1</b>	0.870170
<b>X2.3*X4.2</b>	0.857372
<b>X2.3*X4.3</b>	0.854100
<b>X2.4</b>	0.487650
<b>X2.4*X3</b>	0.558089
<b>X2.4*X4.1</b>	0.775034
<b>X2.4*X4.2</b>	0.814323
<b>X2.4*X4.3</b>	0.788009
<b>X2.5</b>	0.767610
<b>X2.5*X3</b>	0.665483
<b>X2.5*X4.1</b>	0.868469
<b>X2.5*X4.2</b>	0.868835
<b>X2.5*X4.3</b>	0.843285
<b>X2.6</b>	0.602414
<b>X2.6*X3</b>	0.605294
<b>X2.6*X4.1</b>	0.734928
<b>X2.6*X4.2</b>	0.786319
<b>X2.6*X4.3</b>	0.756413
<b>X3</b>	0.418414

<b>X4.1</b>	0.859067
<b>X4.2</b>	0.762278
<b>X4.3</b>	0.747593
<b>Y1.1</b>	0.841038
<b>Y1.2</b>	0.827713
<b>Y1.3</b>	0.832480
<b>Y1.4</b>	0.839567
<b>Y1.5</b>	0.842355
<b>Y1.6</b>	0.830897

**AVE**

	<b>AVE</b>
<b>Customer Satisfaction (Y)</b>	0.875876
<b>Income (X3)</b>	
<b>Interest Rate (X4)</b>	
<b>Risk Perception (X2)</b>	0.721342
<b>Risk Perception (X2) * Income (X3)</b>	0.918047
<b>Risk Perception (X2) * Interest Rate (X4)</b>	0.758951
<b>Service Quality (X1)</b>	0.849248
<b>Service Quality (X1) * Income (X3)</b>	0.965669
<b>Service Quality (X1) * Interest Rate (X4)</b>	0.780548



**Community**

	<b>communality</b>
<b>Customer Satisfaction (Y)</b>	0.875876
<b>Income (X3)</b>	1.000000
<b>Interest Rate (X4)</b>	0.612083
<b>Perception (X2)</b>	0.721342
<b>Risk Perception (X2) * Income (X3)</b>	0.918047

<b>Risk Perception (X2) * Interest Rate (X4)</b>	0.758951
<b>Service Quality (X1)</b>	0.849248
<b>Service Quality (X1) * Income (X3)</b>	0.965669
<b>Service Quality (X1) * Interest Rate (X4)</b>	0.780548

**Total Effects**

	<b>Customer Satisfaction (Y)</b>	<b>Income (X3)</b>	<b>Interest Rate (X4)</b>	<b>Perception (X2)</b>
<b>Customer Satisfaction (Y)</b>				
<b>Income (X3)</b>	0.178098			
<b>Interest Rate (X4)</b>	0.319256			
<b>Perception (X2)</b>	1.013325			





<b>Risk Perception (X2) * Income (X3)</b>	-0.393304			
<b>Risk Perception (X2) * Interest Rate (X4)</b>	-0.865157			
<b>Service Quality (X1)</b>	-0.357899			
<b>Service Quality (X1) * Income (X3)</b>	0.202874			
<b>Service Quality (X1) * Interest Rate (X4)</b>	0.936775			

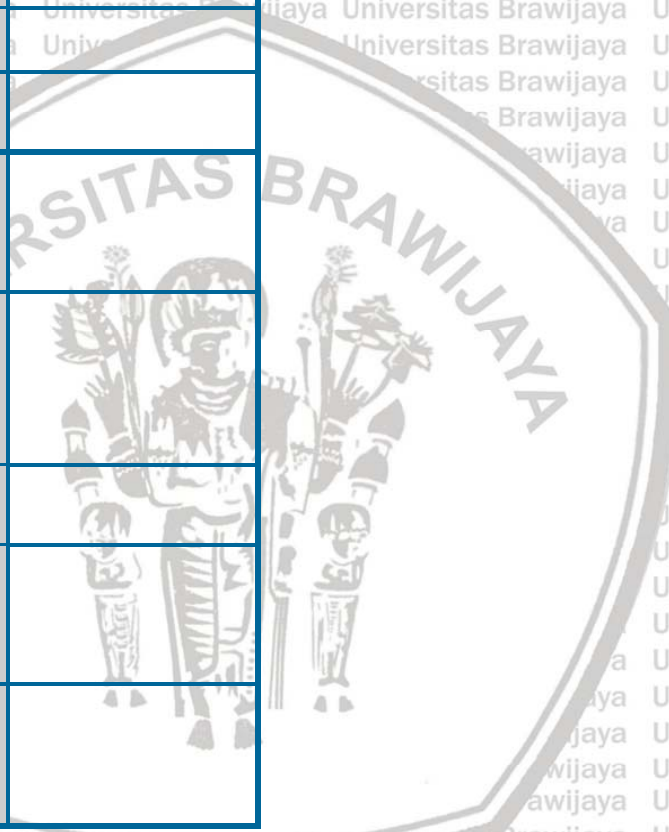
	<b>Risk Perception (X2) * Income (X3)</b>	<b>Risk Perception (X2) * Interest Rate (X4)</b>	<b>Service Quality (X1)</b>	<b>Service Quality (X1) * Income (X3)</b>
<b>Customer Satisfaction (Y)</b>				
<b>Income (X3)</b>				
<b>Interest Rate (X4)</b>				
<b>Risk Perception (X2)</b>				
<b>Risk Perception (X2) * Income (X3)</b>				

<b>Risk Perception (X2) * Interest Rate (X4)</b>				
<b>Service Quality (X1)</b>				
<b>Service Quality (X1) * Income (X3)</b>				



<b>Service Quality (X1) * Interest Rate (X4)</b>				
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	<b>Service Quality (X1) * Interest Rate (X4)</b>
<b>Customer Satisfaction (Y)</b>	
<b>Income (X3)</b>	
<b>Interest Rate (X4)</b>	
<b>Risk Perception (X2)</b>	
<b>Risk Perception (X2) * Income (X3)</b>	
<b>Risk Perception (X2) * Interest Rate (X4)</b>	
<b>Service Quality (X1)</b>	
<b>Service Quality (X1) * Income (X3)</b>	
<b>Service Quality (X1) * Interest Rate (X4)</b>	



**Composite Reliability**

	<b>Composite Reliability</b>
<b>Customer Satisfaction (Y)</b>	0.976923
<b>Income (X3)</b>	
<b>Interest Rate (X4)</b>	



Risk Perception (X2)	0.938501
Risk Perception (X2) * Income (X3)	0.985324
Risk Perception (X2) * Interest Rate (X4)	0.982638
Service Quality (X1)	0.965708
Service Quality (X1) * Income (X3)	0.992940
Service Quality (X1) * Interest Rate (X4)	0.981596

### Calculation Results

#### Stop Criterion Changes

	X1.1	X1.1*X3	X1.1*X4.1	X1.1*X4.2
Iteration 0	1.000000	1.000000	1.000000	1.000000
Iteration 1	0.202937	0.198802	0.083122	0.072698
Iteration 2	0.202928	0.198791	0.083124	0.072695
Iteration 3	0.202931	0.198795	0.083127	0.072692
Iteration 4	0.202931	0.198795	0.083127	0.072692

	X1.1*X4.3	X1.2	X1.2*X3	X1.2*X4.1
Iteration 0	1.000000	1.000000	1.000000	1.000000
Iteration 1	0.069435	0.202395	0.202346	0.080890
Iteration 2	0.069414	0.202411	0.202353	0.080900
Iteration 3	0.069417	0.202424	0.202359	0.080906
Iteration 4	0.069417	0.202424	0.202359	0.080906

	X1.2*X4.2	X1.2*X4.3	X1.3	X1.3*X3
Iteration 0	1.000000	1.000000	1.000000	1.000000

<b>Iteration 1</b>	0.073886	0.068308	0.220503	0.205609
<b>Iteration 2</b>	0.073893	0.068295	0.220475	0.205607
<b>Iteration 3</b>	0.073890	0.068298	0.220503	0.205615
<b>Iteration 4</b>	0.073890	0.068298	0.220503	0.205615

	<b>X1.3*X4.1</b>	<b>X1.3*X4.2</b>	<b>X1.3*X4.3</b>	<b>X1.4</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.084550	0.073389	0.068801	0.224521
<b>Iteration 2</b>	0.084552	0.073396	0.068784	0.224570
<b>Iteration 3</b>	0.084561	0.073394	0.068789	0.224540
<b>Iteration 4</b>	0.084561	0.073394	0.068789	0.224540

	<b>X1.4*X3</b>	<b>X1.4*X4.1</b>	<b>X1.4*X4.2</b>	<b>X1.4*X4.3</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.207000	0.085246	0.072064	0.069211
<b>Iteration 2</b>	0.207027	0.085265	0.072081	0.069204
<b>Iteration 3</b>	0.207014	0.085261	0.072071	0.069202
<b>Iteration 4</b>	0.207014	0.085261	0.072071	0.069202

	<b>X1.5</b>	<b>X1.5*X3</b>	<b>X1.5*X4.1</b>	<b>X1.5*X4.2</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.234191	0.203809	0.086806	0.073091
<b>Iteration 2</b>	0.234163	0.203788	0.086813	0.073094
<b>Iteration 3</b>	0.234150	0.203783	0.086812	0.073089
<b>Iteration 4</b>	0.234150	0.203783	0.086812	0.073089

	<b>X1.5*X4.3</b>	<b>X2.1</b>	<b>X2.1*X3</b>	<b>X2.1*X4.1</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.069857	0.217507	0.184288	0.074421
<b>Iteration 2</b>	0.069844	0.217500	0.184291	0.074427
<b>Iteration 3</b>	0.069843	0.217496	0.184286	0.074429
<b>Iteration 4</b>	0.069843	0.217496	0.184286	0.074429

	<b>X2.1*X4.2</b>	<b>X2.1*X4.3</b>	<b>X2.2</b>	<b>X2.2*X3</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.064046	0.060890	0.205664	0.171539
<b>Iteration 2</b>	0.064045	0.060879	0.205706	0.171564
<b>Iteration 3</b>	0.064044	0.060880	0.205690	0.171557



<b>Iteration 4</b>	0.064044	0.060880	0.205690	0.171557
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	<b>X2.2*X4.1</b>	<b>X2.2*X4.2</b>	<b>X2.2*X4.3</b>	<b>X2.3</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.073527	0.062266	0.058398	0.221026
<b>Iteration 2</b>	0.073539	0.062278	0.058391	0.221064
<b>Iteration 3</b>	0.073539	0.062272	0.058391	0.221048
<b>Iteration 4</b>	0.073539	0.062272	0.058391	0.221048

	<b>X2.3*X3</b>	<b>X2.3*X4.1</b>	<b>X2.3*X4.2</b>	<b>X2.3*X4.3</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.189945	0.076143	0.064572	0.062145
<b>Iteration 2</b>	0.189963	0.076157	0.064583	0.062139
<b>Iteration 3</b>	0.189955	0.076155	0.064576	0.062138
<b>Iteration 4</b>	0.189955	0.076155	0.064576	0.062138

	<b>X2.4</b>	<b>X2.4*X3</b>	<b>X2.4*X4.1</b>	<b>X2.4*X4.2</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.141228	0.152060	0.065968	0.058400
<b>Iteration 2</b>	0.141227	0.152043	0.065979	0.058402
<b>Iteration 3</b>	0.141214	0.152048	0.065977	0.058395
<b>Iteration 4</b>	0.141214	0.152048	0.065977	0.058395

	<b>X2.4*X4.3</b>	<b>X2.5</b>	<b>X2.5*X3</b>	<b>X2.5*X4.1</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.054877	0.215924	0.182510	0.074697
<b>Iteration 2</b>	0.054864	0.215862	0.182489	0.074693
<b>Iteration 3</b>	0.054863	0.215907	0.182508	0.074705
<b>Iteration 4</b>	0.054863	0.215907	0.182508	0.074705

	<b>X2.5*X4.2</b>	<b>X2.5*X4.3</b>	<b>X2.6</b>	<b>X2.6*X3</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.063913	0.060577	0.162649	0.161483
<b>Iteration 2</b>	0.063907	0.060559	0.162638	0.161473
<b>Iteration 3</b>	0.063912	0.060566	0.162637	0.161468
<b>Iteration 4</b>	0.063912	0.060566	0.162637	0.161468

	<b>X2.6*X4.1</b>	<b>X2.6*X4.2</b>	<b>X2.6*X4.3</b>	<b>X3</b>
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<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.061360	0.056316	0.054213	1.000000
<b>Iteration 2</b>	0.061365	0.056315	0.054204	1.000000
<b>Iteration 3</b>	0.061365	0.056315	0.054205	1.000000
<b>Iteration 4</b>	0.061365	0.056315	0.054205	1.000000

	<b>X4.1</b>	<b>X4.2</b>	<b>X4.3</b>	<b>Y1.1</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.785491	0.212232	0.146085	0.182597
<b>Iteration 2</b>	0.785680	0.212343	0.145690	0.181575
<b>Iteration 3</b>	0.785771	0.212167	0.145741	0.181574
<b>Iteration 4</b>	0.785771	0.212167	0.145741	0.181573

	<b>Y1.2</b>	<b>Y1.3</b>	<b>Y1.4</b>	<b>Y1.5</b>
<b>Iteration 0</b>	1.000000	1.000000	1.000000	1.000000
<b>Iteration 1</b>	0.175640	0.175792	0.176409	0.178971
<b>Iteration 2</b>	0.175745	0.177067	0.176518	0.180041
<b>Iteration 3</b>	0.175745	0.177068	0.176519	0.180041
<b>Iteration 4</b>	0.175746	0.177068	0.176519	0.180041

**Path Coefficients**

	<b>Customer Satisfaction (Y)</b>	<b>Income (X3)</b>	<b>Interest Rate (X4)</b>	<b>Perception (X2)</b>
<b>Customer Satisfaction (Y)</b>				
<b>Income (X3)</b>	0.056096			
<b>Interest Rate (X4)</b>	0.071602			
<b>Perception (X2)</b>	0.563767			
<b>Risk Perception (X2) * Income (X3)</b>	-0.074873			

<b>Risk Perception (X2) * Interest Rate (X4)</b>	-0.261700			
<b>Service Quality (X1)</b>	-0.067811			
<b>Service Quality (X1) * Income (X3)</b>	0.011815			
<b>Service Quality (X1) * Interest Rate (X4)</b>	0.084802			

	<b>Risk Perception (X2) * Income (X3)</b>	<b>Risk Perception (X2) * Interest Rate (X4)</b>	<b>Service Quality (X1)</b>	<b>Service Quality (X1) * Income (X3)</b>
<b>Customer Satisfaction (Y)</b>				
<b>Income (X3)</b>				
<b>Interest Rate (X4)</b>				
<b>Risk Perception (X2)</b>				
<b>Risk Perception (X2) * Income (X3)</b>				
<b>Risk Perception (X2) * Interest Rate (X4)</b>				
<b>Service Quality (X1)</b>				
<b>Service Quality (X1) * Income (X3)</b>				
<b>Service Quality (X1) * Interest Rate (X4)</b>				



	<b>Service Quality (X1) * Interest Rate (X4)</b>
<b>Customer Satisfaction (Y)</b>	
<b>Income (X3)</b>	
<b>Interest Rate (X4)</b>	
<b>Risk Perception (X2)</b>	
<b>Risk Perception (X2) * Income (X3)</b>	
<b>Risk Perception (X2) * Interest Rate (X4)</b>	
<b>Service Quality (X1)</b>	
<b>Service Quality (X1) * Income (X3)</b>	
<b>Service Quality (X1) * Interest Rate (X4)</b>	

**Measurement Model**

	<b>Customer Satisfaction (Y)</b>	<b>Income (X3)</b>	<b>Interest Rate (X4)</b>	<b>Risk Perception (X2)</b>
<b>X1.1</b>				
<b>X1.1*X3</b>				
<b>X1.1*X4.1</b>				
<b>X1.1*X4.2</b>				
<b>X1.1*X4.3</b>				
<b>X1.2</b>				
<b>X1.2*X3</b>				
<b>X1.2*X4.1</b>				
<b>X1.2*X4.2</b>				



X1.2*X4.3			
X1.3			
X1.3*X3			
X1.3*X4.1			
X1.3*X4.2			
X1.3*X4.3			
X1.4			
X1.4*X3			
X1.4*X4.1			
X1.4*X4.2			
X1.4*X4.3			
X1.5			
X1.5*X3			
X1.5*X4.1			
X1.5*X4.2			
X1.5*X4.3			
X2.1			0.158139
X2.1*X3			
X2.1*X4.1			
X2.1*X4.2			
X2.1*X4.3			
X2.2			0.186386
X2.2*X3			
X2.2*X4.1			
X2.2*X4.2			
X2.2*X4.3			
X2.3			0.155282
X2.3*X3			
X2.3*X4.1			
X2.3*X4.2			
X2.3*X4.3			
X2.4			0.186345
X2.4*X3			
X2.4*X4.1			
X2.4*X4.2			
X2.4*X4.3			

<b>X2.5</b>				0.160741
<b>X2.5*X3</b>				
<b>X2.5*X4.1</b>				
<b>X2.5*X4.2</b>				
<b>X2.5*X4.3</b>				
<b>X2.6</b>				0.153108
<b>X2.6*X3</b>				
<b>X2.6*X4.1</b>				
<b>X2.6*X4.2</b>				
<b>X2.6*X4.3</b>				

<b>X3</b>		1.000000		
<b>X4.1</b>			0.716961	
<b>X4.2</b>			0.163386	
<b>X4.3</b>			0.119654	
<b>Y1.1</b>	0.166746			
<b>Y1.2</b>	0.170287			
<b>Y1.3</b>	0.167227			
<b>Y1.4</b>	0.164366			
<b>Y1.5</b>	0.163439			
<b>Y1.6</b>	0.167936			

	<b>Risk Perception (X2) * Income (X3)</b>	<b>Risk Perception (X2) * Interest Rate (X4)</b>	<b>Service Quality (X1)</b>	<b>Service Quality (X1) * Income (X3)</b>
<b>X1.1</b>			0.189242	
<b>X1.1*X3</b>				0.199300
<b>X1.1*X4.1</b>				
<b>X1.1*X4.2</b>				
<b>X1.1*X4.3</b>				
<b>X1.2</b>			0.190680	
<b>X1.2*X3</b>				0.199074
<b>X1.2*X4.1</b>				
<b>X1.2*X4.2</b>				
<b>X1.2*X4.3</b>				
<b>X1.3</b>			0.203350	
<b>X1.3*X3</b>				0.200815



X1.3*X4.1			
X1.3*X4.2			
X1.3*X4.3			
X1.4		0.203952	
X1.4*X3			0.198488
X1.4*X4.1			
X1.4*X4.2			
X1.4*X4.3			
X1.5		0.212776	
X1.5*X3			0.202323
X1.5*X4.1			
X1.5*X4.2			
X1.5*X4.3			
X2.1			
X2.1*X3	0.145300		
X2.1*X4.1		0.047786	
X2.1*X4.2		0.047568	
X2.1*X4.3		0.051720	
X2.2			
X2.2*X3	0.156408		
X2.2*X4.1		0.052274	
X2.2*X4.2		0.050418	
X2.2*X4.3		0.054632	
X2.3			
X2.3*X3	0.145475		
X2.3*X4.1		0.047711	
X2.3*X4.2		0.046109	
X2.3*X4.3		0.051475	
X2.4			
X2.4*X3	0.222189		
X2.4*X4.1		0.066326	
X2.4*X4.2		0.071701	
X2.4*X4.3		0.073139	
X2.5			
X2.5*X3	0.145683		
X2.5*X4.1		0.049126	

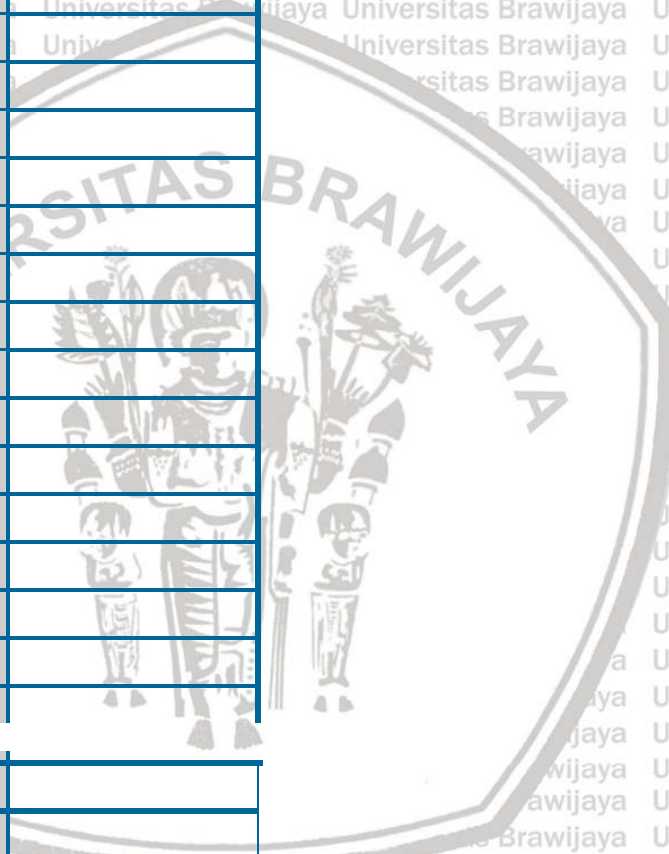
<b>X2.5*X4.2</b>		0.048026		
<b>X2.5*X4.3</b>		0.051736		
<b>X2.6</b>				
<b>X2.6*X3</b>	0.184944			
<b>X2.6*X4.1</b>		0.057182		
<b>X2.6*X4.2</b>		0.064730		
<b>X2.6*X4.3</b>		0.068341		
<b>X3</b>				
<b>X4.1</b>				
<b>X4.2</b>				
<b>X4.3</b>				
<b>Y1.1</b>				
<b>Y1.2</b>				
<b>Y1.3</b>				
<b>Y1.4</b>				
<b>Y1.5</b>				
<b>Y1.6</b>				

	<b>Service Quality (X1) * Interest</b>
	<b>Rate (X4)</b>
<b>X1.1</b>	
<b>X1.1*X3</b>	
<b>X1.1*X4.1</b>	0.064948
<b>X1.1*X4.2</b>	0.065277
<b>X1.1*X4.3</b>	0.070932
<b>X1.2</b>	
<b>X1.2*X3</b>	
<b>X1.2*X4.1</b>	0.063880
<b>X1.2*X4.2</b>	0.067225
<b>X1.2*X4.3</b>	0.068392
<b>X1.3</b>	
<b>X1.3*X3</b>	
<b>X1.3*X4.1</b>	0.066807
<b>X1.3*X4.2</b>	0.063963
<b>X1.3*X4.3</b>	0.069018

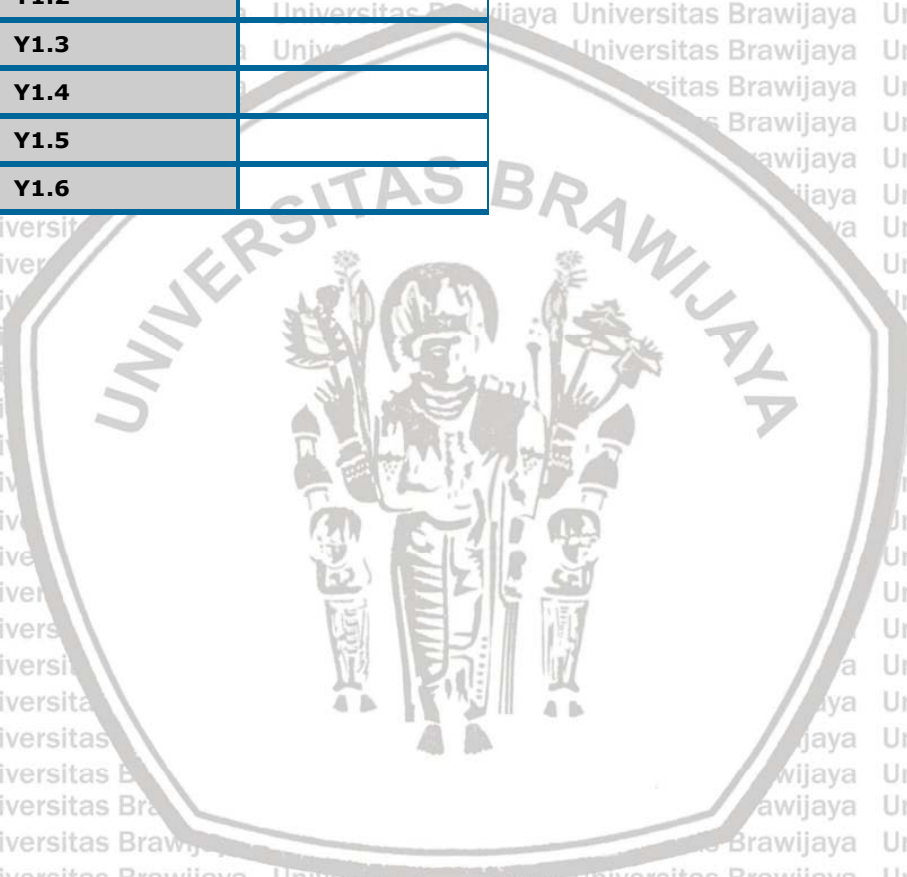




<b>X1.4</b>	
<b>X1.4*X3</b>	
<b>X1.4*X4.1</b>	0.067210
<b>X1.4*X4.2</b>	0.062428
<b>X1.4*X4.3</b>	0.068722
<b>X1.5</b>	
<b>X1.5*X3</b>	
<b>X1.5*X4.1</b>	0.067415
<b>X1.5*X4.2</b>	0.064474
<b>X1.5*X4.3</b>	0.069309
<b>X2.1</b>	
<b>X2.1*X3</b>	
<b>X2.1*X4.1</b>	
<b>X2.1*X4.2</b>	
<b>X2.1*X4.3</b>	
<b>X2.2</b>	
<b>X2.2*X3</b>	
<b>X2.2*X4.1</b>	
<b>X2.2*X4.2</b>	
<b>X2.2*X4.3</b>	
<b>X2.3</b>	
<b>X2.3*X3</b>	
<b>X2.3*X4.1</b>	
<b>X2.3*X4.2</b>	
<b>X2.3*X4.3</b>	
<b>X2.4</b>	
<b>X2.4*X3</b>	
<b>X2.4*X4.1</b>	
<b>X2.4*X4.2</b>	
<b>X2.4*X4.3</b>	
<b>X2.5</b>	
<b>X2.5*X3</b>	
<b>X2.5*X4.1</b>	
<b>X2.5*X4.2</b>	
<b>X2.5*X4.3</b>	
<b>X2.6</b>	



X2.6*X3	
X2.6*X4.1	
X2.6*X4.2	
X2.6*X4.3	
X3	
X4.1	
X4.2	
X4.3	
Y1.1	
Y1.2	
Y1.3	
Y1.4	
Y1.5	
Y1.6	





Bank  
Logo

**JUMHOURIA BANK**  
THE LIBYAN BIGGEST BANK

Branch ZELTIN  
Date: 31/03/2019  
Number: 548

To:

UNIVERSITAS BRAWIJAYA – INDONESIA

The Zeltin Branch of Jumhouria Bank hereby confirms that the questionnaire proposed by **FAISEL MOHAMMED EHMIED** for his thesis entitled “The Effect of Service Quality and Risk Perception on Customer Satisfaction” has been fulfilling the thesis writing requirement and has been distributed to the office customers.

*Wassalamualaikum Wr. Wb.*

The Head of Branch  
Office,

*(Signed and Stamped)*  
Ahmed Mohamed Al  
Baqous

This letter has been translated from the Indonesian translation of original copy by The Translation Division of Language Center of Universitas Islam Negeri Ma'arif Nahdliyyah Ibrahim Malang.

Malang, 16 April 2019

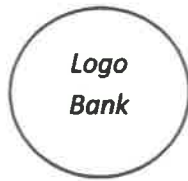
Director of Language Center,

Dr. H. N. Abdul Hamid, MA

NIP. 19030201 1998031007







**BANK JUMHOURIA**  
BANK TERBESAR DI LIBYA

Cabang ZELTIN  
Tanggal: 31/03/2019  
No : 548

Kepada:

UNIVERSITAS BRAWIJAYA – INDONESIA

Dengan Hormat,

Bank Jumhouria Cabang Zeltin memberitahukan bahwa angket yang diajukan oleh **FAISEL MOHAMMED EMHMIED** untuk memenuhi persyaratan penulisan tesis yang berjudul “Dampak Mutu Layanan dan Pengetahuan Resiko terhadap Kepuasan Nasabah” telah diberikan kepada para nasabah di kantor cabang.

*Wassalamualaikum Wr. Wb.*

Kepala Kantor Cabang,

*(Tandatangan dan Stempel)*  
Ahmed Mohamed Al Baqous

Surat Keterangan di atas telah diterjemahkan ke dalam bahasa Indonesia dari bahasa Arab sesuai dengan aslinya oleh Bagian Penterjemahan Pusat Pengembangan Bahasa Universitas Islam Negeri (UIN) Maulana Malik Ibrahim Malang.

