



**ADDIS ABABA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
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**FACTORS INFLUENCING CUSTOMERS' BEHAVIORAL  
INTENTION TO ADOPT INTEREST FREE BANKING IN ETHIOPIA  
THE CASE OF OROMIA INTERNATIONAL BANK S.C**

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**BY:  
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**A Thesis Submitted To The School Of Graduate Studies Of Addis Ababa  
University, School Of Commerce  
For The Partial Fulfillment For The Degree Of Masters Of Art In Marketing  
Management**

**Advisor: Dr. Getie Andualem**

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**June, 2017  
Addis Ababa**

### **Declaration**

I, the undersigned, declare that this study is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the study have been duly acknowledged.

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Banking in Ethiopia the case of Oromia International Bank S.C**

By

Guluma Abdisa

A Thesis Submitted to

The Department of Marketing Management

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Addis Ababa University

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June, 2017

**CERTIFICATION**  
**ADDIS ABABA UNIVERSITY**  
**SCHOOL OF GRADUATE STUDIES**

This is to certify that the thesis prepared by Guluma Abdisa, entitled ‘Factors Influencing Customers Behavioral Intention to Adopt Interest Free Banking in Ethiopia’ in the case of Oromia International Bank and submitted in partial fulfillment of the requirements for the award of the Degree of Master of Arts (Marketing Management) compatible with the regulations of the University and meets the accepted standards with respect to originality and quality.

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Chair of Department of Graduate Program Coordinator

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Guluma Abdisa

## ABSTRACT

*This thesis reports the findings of a study issues concerning factors influencing behavioral intention to adopt interest free banking in Ethiopia. The research framework is based on the Decomposed theory of planned behavior with an extension perceived trust and perceived risk. The conceptual model of the theory was constructed from 13 latent variables. The framework includes behavioral intention, Attitude, subjective norm, Perceived behavioral control, relative advantage, Perceived Trust, Compatibility, complexity, perceived risk, valued people opinion, media influence, self efficacy and facilitating condition constructs. Survey was conducted to gather quantitative data from 360 respondents by self administered method. Employing exploratory factor analysis, Warp Partial Least Square (PLS) was used to examine the entire pattern of inter-correlations among the thirteen proposed constructs and to test related propositions empirically. The study used exploratory factor analysis method and reduced unimportant measurement items from the model. Results show that the model is fit and surpass the quality indices standard. Attitude, Perceived behavioral control, Subjective Norm, Relative advantage, Compatibility, Valued people opinion, media influence, facilitating condition significantly influence customers' intention toward adopting interest free banking. Theoretical contributions and practical implications of the findings are discussed and suggestions for future research are presented.*

**Key Words:** Customer, Interest Free Banking, Innovation, Adoption, Partial least square.

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## ACRONYMS

**AAOIFI:** Accounting and Auditing Organization for Islamic Financial Institution

**AARS:** Average Adjusted R-squared

**AFVIF:** Average Full Collinearity Variance Inflation Factor

**APC:** Average Path Coefficient

**ARS:** Average R-squared

**AVIF:** Average Variance Inflation factor

**DTPB:** Theory of Planned Behaviour

**EFA:** Exploratory Factor Analysis

**IDT:** Innovations Diffusion Theory

**IFB:** Interest Free Banking

**IFBW:** Interest Free Banking Window

**IFSB:** Islamic Financial Services Board

**MoFD:** Ministry of Economic Development

**NBE:** National Bank of Ethiopia

**OIB:** Oromia International Bank

**PBC:** Perceived Behavioural Control

**PCA:** Principal components analysis

**PLS:** Partial Least Square

**SEM:** Structural Equation Model

**SN:** Subjective Norm

**SPSS:** Statistical Package for Social Science

**TRA:** Theory of Reasoned Action

**TPB:** Theory of Planned Behaviour

**GoF (GoF),**

**SPR:** Sympton's paradox ratio,

**RSCR:** R-squared contribution ratio,

**SSR:** Statistical Suppression Ratio

**NLBCDR:** Nonlinear bivariate causality direction ratio

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Banking is the main support and backbone for every economy and community development (Levine, 2000). There is convincing evidence of a close correlation between financial sector and country growth. Countries with larger financial systems tend to grow faster because banks perform a fundamental economic role as financial intermediaries and as facilitators of payments. To this end, they practice either conventional banking or Islamic banking/interest free banking (IFB) or both at the same time.

The Islamic Bank can be defined as a bank which is applying the banking system that is based on the principle of Islamic law also known as Shariah and will not involve itself in the transaction which prohibited by Shariah (Abdullah, Sidek, & Adnan, 2012).

What distinguishes Interest Free Banking from the conventional banking system is based on a comprehensive system of ethics and moral values stemming from the Islamic religion principle which avoids receiving or paying of Interest (Riba), profit/ loss sharing, prohibit financing harmful industry to mankind, avoid uncertainty, supervised by Shariah Supervisor Board and highly depend on Contractual Relationship (Bellalah, Masood, 2013) while conventional banks depend on interest, borrowers bear the total risk, invest in any visible industry, deals with derivatives, have no such a Shariah board and depend only creditor-debtor contract relationship. Conventional banks use money as a commodity which leads to inflation. In Islamic banking the money is linked with the real assets that directly contribute in the economic development.

The Islamic financial law has long history but Islamic banking and finance industry has very recent origin and came into existence in 1963 when Mit-Ghamr saving bank in Egypt experimented the first effort of establishing Islamic banking system that was unsuccessful attempt due to the inappropriate marketing and management strategy. The subsequent strong and successful step was taken by Malaysia in 1980, which is first Islamic country that has given more

consideration for the development of Islamic banking system with profit and loss sharing (Platt, 2008). This achievement was given rise to Islamic banking growth.

Modern expansion of Islamic banking has involves through the process of converting the entire financial intermediation of a country from a conventional system to a full-fledged Islamic system (Iran and Sudan) and by establishing Islamic banks to compete with conventional banks (Gusau, 2000). International experiences show that banks in different countries give Islamic banking services in independent banks, or in a separate branch or separate window in a conventional bank (Shanmugam, et al, 2004).

Islamic finance assets grew at double-digit rates during the past decade, from about US\$200 billion in 2003 to an estimated US\$1.8 trillion at the end of 2013 (Ernst & Young 2014; and Oliver Wyman 2009). However, despite this growth, Islamic finance assets are still concentrated in the Gulf Cooperation Council countries, Iran, and Malaysia, and represent less than 1 percent of global financial assets. Islamic Banking has thus increased its diffusion in many countries, crossing the threshold of 15 percent as a share of banking system assets in 10 countries (Iran and Sudan with a full-fledged Islamic financial sector, Bangladesh, Brunei, Kuwait, Malaysia, Qatar, Saudi Arabia, the United Arab Emirates, and Yemen) (Ernst & Young 2014). Islamic banking represents about 1¼ percent of global banking assets. During the recent global financial crisis, Islamic banks were less exposed to the toxic assets that contaminated the conventional banking world, but suffered from second-round effects, notably through the real estate slump (IFSB, 2014).

In Sub-Saharan Africa, South Africa pioneered the development of Islamic financial instruments with one of the largest international Islamic banking conglomerates, Al-Baraka Banking Group in 1990s (Enrique et al 2014).

Despite the growth in Islamic banking, there are concerns that development of Islamic banking remains somewhat limited and that the industry may be suffering from a lack of innovation (Khan and Bhatti, 2008) and lack of initiatives in convincing customers that they are really offering Shariah compliant products and not dressing up conventional banking practices.

The Islamic Financial industry has set up international regulatory institutions to guide operations around the world, although it has been difficult to ensure standardization of Islamic products across different countries. The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), based in Bahrain, issues international standards on accounting, auditing, and corporate governance, while the Islamic Financial Services Board (IFSB), based in Malaysia, is in charge of standards for supervision and regulation.

According to census conducted in 2007 by Central Statics Authority of Ethiopia the figure of 33.9% population were reported to Muslim ([www.csa.gov.et](http://www.csa.gov.et) ). Even though Muslim population is large, there was no Interest Free Banking facility available to Muslim community before 2013 that pull their money in active economy circulation.

In 2008, the Ethiopian Banking Business Proclamation (592/2008) was amended to include a provision for IFB. In 2011, the NBE issued a directive to authorize the business of IFB (SSB/51/2011). The National Bank of Ethiopia's (NBE) directive that allowed banks to offer interest-free banking services alongside their conventional operations came into play in October 2011, but IFB in Ethiopia only started in September 2013, when Oromia International Bank (OIB) launched the service. A month later, Commercial Bank of Ethiopia (CBE) joined the market at the end of October, 2013 followed by United Bank which began providing the service on May 1, 2014 (Joseph, 2013; Mikias 2014). Two years later, Abay Bank has again joined as of December 2015; Cooperative Bank of Oromia as of March 2015, Wegagen and Dashen banks has joined the industry in second half of 2016.

## **1.2 Background of the company**

Oromia International Bank S.C (OIB) was established on October 25, 2008 in accordance with the Ethiopian Commercial Code (1960) and Banking Business Proclamation NO.592/2008 by more than five thousand shareholders with a paid up capital of Birr 91.2 million to provide full-fledged commercial banking activities. The Bank has registered remarkable and sustainable growth in its overall performance in past Eight years. For instance, as of December 31, 2016, OIB's total deposit stood at Birr: 11.38 billion, loan Birr: 7.34 billion, Capital Birr: 1.57 billion, Asset Birr: 13.89 billion, Staff strength: 2,955, Deposit Accounts/Customers: 677,526 and total branches 211. In 2013, OIB has successfully commenced Interest free banking window (IFBW)

along with the conventional banking service. Hence, OIB's pioneering in providing IFB products and services enabled to mobilized IFB deposit Birr 1.60 billion and widen its IFB customer's base to 132,588 and Outstanding Finance Birr: 858.7 million at as of December 31, 2016, which constitute 14%, 20% and 13.2% respectively from the corporate balance.

Since Interest Free banking Window is at infant stage in Ethiopia, its expansion and adoption require significant promotion level, positive attitude from commercial banks and customers regarding the products and service of Interest Free banking (IFB) social influence and perceived behavioral control.

### **1.3 Statement of the Problem**

The empirical evidence shows that Interest free banking have spreading and developing across the world. Some factors appear to be correlated with the diffusion of IFB, namely the principles of risk-sharing that underlie financing, the growth of oil-rich economies, the presence of Muslims in the population, an enabling legal framework, and economic integration with Middle Eastern countries or proximity to Islamic financial centers (Alam, et al 2011). Wherever there is a sizable Muslim community and is not restricted to Muslim countries, the probability for Islamic banking to spread in a given country rises with the share of the Muslim population. According to Ibrahim (2012), trading with the Middle East and economic stability are also conducive to the diffusion of Islamic banking.

Almost half of Ethiopian banking commercial industry out of seventeen banks has commenced Interest free banking service within less than three years while some others banks are also showed initiation to commence it. The rapid diffusion of interest free banking adoption by banking organization reflects their understanding how high important and demand it is as an alternative financing intermediary in stiff banking competition. In return, banking sectors investigation of factors influencing customers' behavioral intention to adopt interest free banking product and service, identifying resistance to adoption for product modification and frequently collecting feedback can help banks to mobilize significant amount of deposit thereby divert to financing that can create active economic circulation.

Besides, interest-free banking deposit market share is very low compared to conventional banks deposit; banks should endeavor to attract customers by working on changing customer attitude towards IFB acceptance.

Islamic banking studies are largely conducted among Muslims and to a smaller extent among non-Muslims countries, but in Ethiopia; few studies were conducted on the attributes of IFB. Among these studies Teferi (2015) has identified that introduction of IFB does not only create inclusive financial system for the Muslim population but also has a potential to influence and enhance the economic development of the country through resource mobilization and employment creation by encouraging people to use the banking system. It is only limited to IFB's contribution and prospects.

Similarly, Mohammed (2012) has identified the potential challenges as: lack of promotion, regulatory and supervisory challenges, institutional challenges, lack of support and link institutions, gap in research and development in Islamic studies, lack of qualified human resource as well as wrongful association with specific religion and the global terrorism. This study was undertaken before the practical introduction of the IFB in the country. Therefore, it was not based on actual observation of facts on the ground.

Karima (2016) study has identified the challenges to deliver IFB products as lack of commitment of the bank, lack of Shariah advisor, lack of supportive supervisory directive, lack of capacity to deliver full range of IFB products, lack of awareness of customer, inadequate marketing and promotion, double taxation, nature of IFB products, inaccessibility of IFB products, the IFB being delivered in a Window model. The study lacks specific structural beliefs in pointing factors affecting adoption of interest free banking. However, this study focused on the perception and understandings, respondents' psychographic and socio characteristics that was surveyed and applied in this research frameworks.

According to the findings of (Tooraj Sadeghi et al (2011), Lukman et al (2012), Binta, et al (2014), Dariyoush, et al (2014), Akhtar et el (2016) IFB adoption is subject to Relative Advantage, Complexity, compatibility, Attitude, Behavioral intention, Actual Use, Social Influence, Religiosity and perceived behavioral control.

In Ethiopia, IFB has short history not more than three years though its performance progress is appreciated in accompanying with challenging factors such as low awareness, negative perception, misconception, lack of adequate IFB regulatory framework and knowledge gaps.

In nutshell, the strong interest of Commercial banks to commence IFB as alternative financing intermediary, existence of large Muslim community in the country versus low market share of

IFB compared to Conventional banks, absence of literature on factors influencing intention to adopt of IFB were the major area of this research gap.

Therefore, early exploring factors that influence adoption of Interest Free Banking help all stakeholder of IFB to address the problem and speed up the adoption of IFB product and service that has important contribution for economic development and the well being of the society.

## **1.4 Basic Research Questions**

To get the comprehensive understanding of the phenomenon under investigation, the following postulated research questions need to be addressed.

- What are the various factors influencing behavioral intention to adopt IFB in Ethiopia?
- Which of these factors have a significant impact on adoption of IFB in Ethiopia?
- What are the various factors that affect the attitude towards adoption of IFB?
- What are the various factors that affect the Social norms towards adoption of IFB?
- What are the various factors that affect the perceived behavioral control towards adoption of IFB?

## **1.5 Objective of the Study**

### **1.5.1 General Objective of the Study**

The general objective of this study is to investigate and identify factors influencing the adoption of Interest free banking product and service.

### **1.5.2 Specific Objective of the Study**

More specifically the study seeks to achieve the following objectives.

- ⇒ To explore the various factors that influence customers behavioral intention to adopt IFB;
- ⇒ To identify factors which have a significant influence on adoption of IFB in Ethiopia
- ⇒ To investigate factors that influence the attitude of the customers toward the adoption of IFB;
- ⇒ To investigate the referent group that influence the customers' intention about the IFB;
- ⇒ To investigate the factors that constitutes perceived behavioral control of the customer to adopt IFB.

## **1.6 Definitions of Terms**

### **1.6.1 Conceptual Definitions**

**Innovation:** “is an idea, practice, or object that is perceived as new by an individual or other unit of adoption” (Rogers, 1995, p. 11).

**Rate of adoption:** The “rate of adoption is the relative speed with which an innovation is adopted by members of a social system. So the rate of adoption is a numerical indicator of the steepness of the adoption curve for an innovation” (Rogers, 1995, p. 206).

**Full-cycle IFB Service:** Banking service including deposit, financing, international trade service and other various non-cash facilities (Warde, 2000).

**Intention:** Intention is an indication of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior (Bagozzi, Baumgartner and Yi 1998).

**Behavior:** Behavior is the manifest, observable response in a given situation with respect to a given target (Ajzen and Fishbein 1980).

### **1.6.2 Operational Definition**

The researcher cited the terminologies that used in the subsequent report along with the research subject.

**Profit Sharing:** concept governing allocation of return from IFB.

**Prohibition:** business engagements forbidden in compliance with the Sharia Principle.

**Riba/Usury:** Interest.

**Sharia Committee:** a team of an independent Sharia Scholars in charge of monitoring compliance aspect of the IFB.

## **1.7 Significance of the Study**

Interest free banking adoption has been carried out in most Ethiopian commercial banks as well as by customers. It is believed that different factors affect intention to adopt interest free banking by banks and customers. Though the adoption of IFB by banks and customers vary, the outcome of this study further decomposed factors that influence adoption of IFB by customers that can provide solutions that will be managerially relevant, pointing to specific factor affecting adoption. This will help banks to develop strategies that accelerate rate of adoption. In addition, since IFB is in its infant stage in Ethiopia, the research results will be a valuable reference material for the financial students who wish to understand and undertake similar study on factors affecting adoption of the IFB.

## **1.8 Scope of the Study**

When conducting the study, the researcher limited the scope only to the factors influencing customers to adopt interest-free banking in Ethiopia the case of Oromia International Bank. Since there are many variables to measure adoption, this research focused on decomposing three main antecedents of behavioral intention (customer attitude, Subjective norm and perceived behavioral control). Geographically, the nine regions and two Municipal administrative cities in Ethiopia were incorporated as Oromia International Bank has branches in all area. The result of the finding was analyzed by using Structural Equation Model (SEM) Partial Least Square (PLS) method. SEM is a multivariate technique combining aspects of multiple regression (examining dependence relationships) and factor analysis (representing unmeasured concepts with multiple variables) to estimate a series of interrelated dependence relationships simultaneously.

## **1.9 Organization of the Paper**

This thesis is arranged in different sections and each section covers some areas of research.

**Chapter-1: Introduction:** This chapter contains background of the study, statement of the problem, basic research questions, objectives of the study, research hypothesis, definition of terms, and significance of the study, scope the study and limitation of the study.

**Chapter-2: Review or Related Literature:** This chapter presents overview of the literature, theoretical review, empirical review and the conceptual framework of the study.

**Chapter-3: Research Methodology:-** illustrates the background of the research approach, research design, sampling design, source of data, data collection method, data collection instrument, data analysis method, validity and reliability and research ethics.

**Chap-4: Data Presentation, Analysis and Interpretation:** This chapters deal with the data presentation of the study and interprets and/or discuss the findings.

**Chap-5: Summary, Conclusion and Recommendation:-**This chapter comprises summary of findings, conclusions, limitations of the study and recommendations.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Chapter Overview**

This chapter presents a review of all relevant literature on main facet of innovation adoption of Interest Free Banking. At the beginning of this literature review, the researcher provide some insight on interest free banking developments, general concepts and guiding principles, IFB products and services. Following this, detailed review of the different models and theories regarding adoption of Interest Free Banking was discussed in order to provide a brief description of the research conceptual model development process. Besides, empirical literature review of several widely validated models/theories reviewed and linked to main perspective of Interest Free Banking adoption, which help the researcher to arrive on premises of conceptual model of this research in line with the relevant theoretical models reviewed. Finally, this chapter was concluded with the proposed conceptual framework of the study.

##### **2.1.1 Development of Interest Free Banking**

Despite Interest free banking or Islamic banking is a recent phenomenon, the basic practices and principles of Islamic finance date back to the early part of the seventh century (Warde 2013). Its roots belong to the early days of Islam and it was available in all financial matters of state solved through Islamic financial law. Islamic financial system is gradually improved and nowadays it is recommended and exercised by many Muslim countries as well some non-Muslim countries.

Modern Islamic finance emerged in the mid-1970s with the founding large Islamic banks such as Dubai, Malaysia, Bahrain and Kuala Lumpur. The development initially occurred through marketing of a steadily expanding supply of Sharia compliant financial instruments. The growth of geographical reach and the emergence of new financial centers for Islamic banking in broad range of retail products and services have largely contributed to make Islamic banking as competitive as the conventional banking method. According to Al-Jarhi and Iqbal (2001), the practice of Islamic banking, at present, takes one of the following forms: (I) Islamic banks operating within a financial system where all banks are Islamized; (II) Islamic banks operating alongside other conventional banks and (III) Shariah- complaint branches, windows and funds established by some conventional banks. Rising awareness and demand for Islamic products,

along with supportive government policies and growing sophistication of financial Institutions, have together raised the rate of growth (Masood, 2014).

In 2008, the Ethiopian Banking Business Proclamation (592/2008) was amended to include a provision for IFB. Three years later, the NBE issued a directive that authorizes the business of IFB (SSB/51/2011). The NBE directive that allowed banks to offer interest-free banking services alongside their conventional operations came into play in October 2011, but IFB in Ethiopia only started in September 2013, when Oromia International Bank (OIB) launched the service. A month later, Commercial Bank of Ethiopia (CBE) joined the market at the end of October, 2013 followed by United Bank which began providing the service on May 1, 2014 (Joseph, 2013, Mikias 2014). Two years later, Abay Bank has again joined as of December 2015; Cooperative Bank of Oromia as of March 2015, Wegagen and Dashen banks has also joined the industry in second half of 2016.

In accordance BSD No SBB/51/2011, the NBE authorizes the business of IFB under the umbrella of the Conventional banking with limited scope: “Interest-free banking business’ refers to banking business in which mobilizing or advancing funds is undertaken in a manner consistent with Islamic finance principles and mode of operation that avoids receiving or paying interest;” and “interest-free banking window” refers to a unit within a conventional bank exclusively offering interest-free banking services.”

### ***2.1.2 The Basic Principles of Islamic Banking Vs Conventional Banking***

Table 2.1.1: Basic Principles of Islamic Banking Vs Conventional Banking

<b>Basic Principles</b>	<b>Islamic banking system</b>	<b>Conventional Banking System</b>
Business framework	Islamic Banking System is based on Sharia'a laws - Sharia'a scholars ensure adherence to Islamic laws and provide guidance.	While the conventional financial system is based only on man-made laws and no religious laws or guidelines
Interest (Riba)	Riba (Interest) in Islam is forbidden. Hence, all banking activities must avoid interest. Instead of interest, the Bank earns profit (mark-up) and fees on financing facilities it extends to customers.	Whereas conventional financial institutions "trade" in money (buying money from depositors and selling money in the form of loans), are interest- based financing.
Prohibited activities	Sharia'a prohibits using or dealing in certain commodities or activities that are unlawful in Islam or harmful to mankind	Support arms industries and industries that pollute the environment and exploit children
Uncertainties/Ghar ar	Any contract based on a future uncertain event, within Islamic banking, is not generally allowable, e.g. hedging, dealing in derivatives, etc.	Conventional financial system allows trading and dealing in derivatives of various forms is allowed

Contractual Relationship	Contractual relationship in Islamic financial institution depends upon the nature of transaction. It could be a seller-buyer relationship (Murabaha), a lessor-lessee relationship (Ijara), a partnership (Musharaka), or a creditor-debtor relationship (Qard).	creditor-debtor relationship has only one form in the conventional financial institution
Participation and risk Sharing	It employs the concept of participation in the enterprise, utilizing the funds at risk on a profit-and-loss sharing basis, thus encouraging better resource management. The Islamic financial system is based on equity	The relation of investors to the institution is that of partners whereas that of conventional banking is that of creditor-investor. Conventional banking system is loan based.
Contributes to the socio-economic goals of the Islamic society	The Islamic financial system should contribute to achieving the major socio-economic goals of the society towards the poor and must contribute in the efforts of poverty alleviation and people empowerment that enhances equality and fairness.	While conventional finance focuses solely on economic transactions and markets,
Accounting Standards	Islamic financial institution abides by the accounting standards of Accounting and Auditing Organization for Islamic Financial Institutions “AAOIFI” formed in 1988 in Bahrain.	While conventional financial institution follows the accounting standards of the British Accounting Practices, American Financial accounting Standards and International Accounting Standards.
Sharia’a Supervisory Board	Islamic banks are supervised by a Sharia’a Supervisory Board (SSB) which allows the bank to conduct its financial transactions in accordance with Sharia’a.	There is no existence of such Board in the conventional bank.

Source: adapted from Dr. Mohammed (2002)

### **2.1.3 Major Products of IFB**

According to Abdulrazak (2009), Chapra (1986), Hassan and Lewis (2007), Islamic Banking Handbook (First Edition April 2010), Shanmugam and Zahari (2009) and the prevailing local practices governed by the working policies and procedures adopted by Ethiopian commercial banks IFB products are clustered into three broad categories: Islamic Banking Deposit Products(Sources of Funds), Islamic Banking Financing Products (Use of Funds) and Other Services (Trade Service and Other), all with specific services. These IFB products and services was briefly presented that will add to Ethiopian literature.

#### **I. IFB Fund Mobilization (Sources of Funds)**

##### **❖ Wadiah Deposit Account (Safekeeping)**

It is a peculiar non-earning type of IFB deposit that operates under the contract of Wadiah Yad Dhamanah (guaranteed custody). The bank accepts deposits from its customers looking for safe custody and convenience and requests permission to make use of the customers' funds for investment purposes promoting transparency. The customers may withdraw their balances at any time. Profit generated from the use of the customers' funds belongs to the bank. However, the bank may at its absolute discretion reward the customers by declaring profits to them.

❖ **Demand Deposit (Amana Current Accounts)**

Amana Current accounts are non-earning deposits that operate based on the principle of al-wadiah, whereby the depositors are guaranteed repayment or withdrawal of their funds on demand. At the same time, the depositor does not receive return for depositing funds in a current account, because the guaranteed funds will not be used for profit and loss ventures.

❖ **Labbaik-Wadia Saving Account**

It is a special saving plan intended to extend alternative for those customers who want to make Hajji and Umrah. The fund will not be used in business not permitted by Shariah.

❖ **Mudaraba-Investment Deposit Account (Restricted Investment Account)**

This type of IFB deposit is an earning deposit which is mobilized with the knowledge that bank acts as the Mudarib (manager) and invests the fund in restricted investment based on active intervention of the capital provider complemented with professional advice from the bank side. The profit on the investment will be shared as per agreement and loss will be shared by the depositor (capital provider).

❖ **Unrestricted Investment Deposits (Unrestricted Mudaraba)**

Unrestricted Investment Deposits is an earning deposit which mobilized with the knowledge that bank acts as the Mudarib (manager) and invests the fund without restriction and intervention of the capital provider in any Sharia compliant manner. The profit on the investment will be shared as per agreement and loss will be shared by the depositor (capital provider). The bank has discretion to participate in the investment. The bank can pool the money for its daily IFB business activities.

## **II) Fund Utilization Scheme (IFB Financing Products)**

Islamic financing products are highly secured from risk management point of view as the financing shall directly be made to the supplier of the goods or services to manage possible fund

diversion, unlike the Conventional banks. Though the resource utilization nature of the IFB business generally consolidates to trading and equity (Musharaka) activities, Islamic mode of financing can be broadly categorized into three: trade-based financing, rental-based financing and partnership-based financing.

**A) Trade-Based Financing:** It is a means of financing in which Islamic banks provide financing through sale and purchase of tradable goods and services. Islamic banks buy a good or service (directly or through its agent) from the market and sell it to customers on deferred payment basis (installments). The agent may be an employee on Islamic bank, a third party or the customer himself as well. There are four kinds of very common trade-based financing services:

❖ **Murabahah (Cost Plus) Financing**

Murabahah means cost plus mark-up sale and it the most popular, convenient and flexible IFB financing product. Based on this contract, the bank may finance customer who wishes to acquire an asset by purchasing the said asset from the developer/supplier and subsequently sells to the customer Shanmugam and Zahari (2009, p. 19).

❖ **Salam Financing**

A kind of financing in which a predetermined amount of financing fund is disbursed in advance for a production of specific commodity (most of the time agricultural products) to be delivered in future. Advance based on agreed price for future delivery of agricultural products.

❖ **Istisna Financing**

It is a mode of financing for manufactured/built assets. A bank manufactures/builds or get manufactured/built the assets on behalf of the customer at an agreed value, finances the cost and finally the customer settles the financing at an agreed instalment and period.

❖ **Interest Free Export Financing**

This is interest free financing services provided for exporters for up to 60 days without any charges. The settlement will be through the bank with prevailing buying rate of computable on the approved foreign currency type.

**B) Rental-based Financing**

❖ **Ijarah Financing**

Ijarah means lease or rent. Generally, the contract of Ijarah financing means selling of the benefit or use or service of an asset, for a fixed price or wage. Leasing is a contract between a lessor (bank) and a lessee for the lease of an equipment or machine which is chosen by the lessee from

a supplier or manufacturer Shanmugam and Zahari (2009). Islamic banks lease or lease and sell machines or equipments to customers on deferred payment basis.

### **C) Partnership-Based Financing**

#### **❖ Musharakah (Partnership)**

This mode of financing is based on pre agreed arrangements between two or more parties, each contribute capital, and profit or loss is shared between the partners.

#### **❖ Mudarabah (Joint-Venture)**

It is a joint-venture between owner of capital and an entrepreneur who provides the expertise knowledge. The ratio of profit distribution must be agreed at the time of execution of the contract.

### **III. Other Services (Trade Services and Others)**

These products are include various international trade services and over the counter services with little or no distinguishing features from the Conventional banking;

- a. Different Guarantees
- b. All international documentary credit services
- c. Trading in currencies
- d. Debit Card, Charge Card and Credit Card
- e. Wakalah (Agency)
- f. Hawala (Transfer of Debt or Money)

## **2.2 Theoretical Review**

### **2.2.1 Innovation Diffusion and Adoption**

According to Rogers (2003), almost all of the new ideas analyzed in his book were technological innovations, and he often used "innovation" and "technology" as synonyms. As to Rogers, "An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption". Rogers further explained that If the idea seems new to the individual, it is an innovation. Newness in an innovation need not just involve new knowledge. Someone may have known about an innovation for some time but not yet developed a favorable or unfavorable attitude toward it, nor have adopted or rejected it. The "newness" aspect of an innovation is

expressed in terms of knowledge, persuasion, or a decision to adopt before they are ready to adopt a product or service.

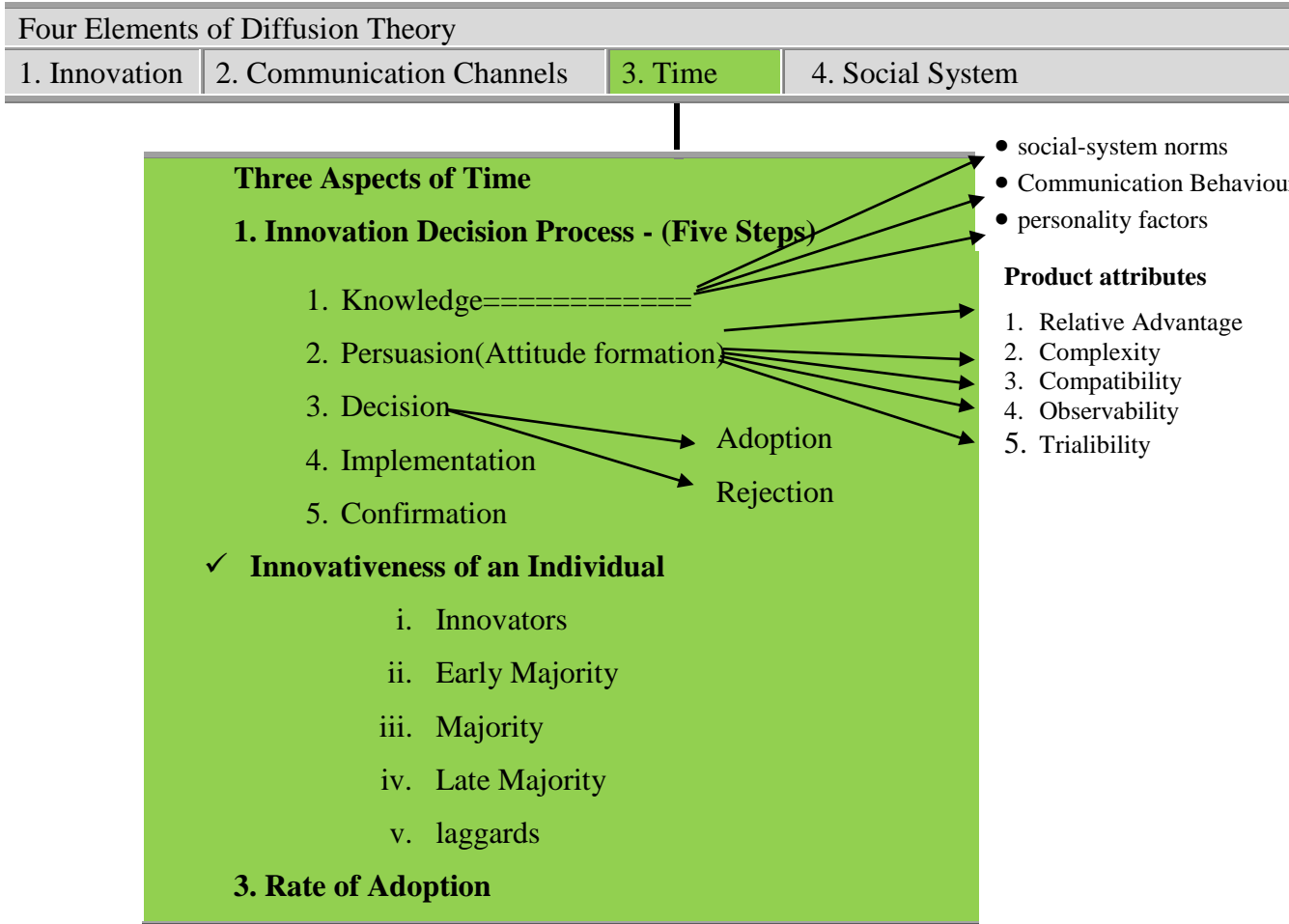
For Rogers (2003) diffusion is the “process by which 1) innovation 2) is communicated through certain channels 3) over time 4) among the members of a social system.”

Rogers’ diffusion of innovations theory is the most appropriate for investigating the adoption of technology across many fields such as anthropology (water boiling, new steel ax), marketing (new product, coffee brand, touch tone telephone and clothing fashion) geography, public health, general sociology, education, rural sociology (agricultural ideas, fertilizers, Weeds spray, hybrid seeds).

For Rogers, “a technology is a design for instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome” (p. 13). It is composed of two parts: hardware and software. While hardware is “the tool that embodies the technology in the form of a material or physical object,” software is “the information base for the tool” (Rogers, 2003, p. 259).

For Rogers (2003), adoption is a decision of “full use of an innovation as the best course of action available” and rejection is a decision “not to adopt an innovation” (p. 177).

As expressed in this definition, innovation, communication channels, time, and social system are the four key components of the diffusion of innovations.



**Figure 2.2.1: Innovation-Decision Process and Elements of Diffusion (Source: Rogers 2003).**

*i) The Innovation:* No universally accepted definition of the terms “product innovation” or “new product” exists. However, (Hoyer and Macinnis, 2008) defined a new product, or an innovation as an offering that is new to the marketplace. More formally, an innovation is a product, service, attribute, or idea that consumers within a market segment perceive as new and that has an effect on existing consumption patterns.

Instead, various approaches have been taken to define a new product or a new service; these can be classified as:

**A) Firm-product-oriented:** when the product is actually new to the marketplace. (i.e., to competitors or consumers like copies or modifications of a competitor’s product would qualify as new while product oriented approach focuses on the features inherent in the product itself and on the effects these features are likely to have on consumers’ established usage patterns.

**B) Market-oriented:** judges the newness of a product in terms of how much exposure consumers have to the new product. A product is considered new if it has been purchased by a relatively small (fixed) percentage of the potential market.

**C) Consumer-oriented:** Products, services, attributes, packages, and ideas are innovations if they are perceived as being new by consumers, whether or not they actually are new.

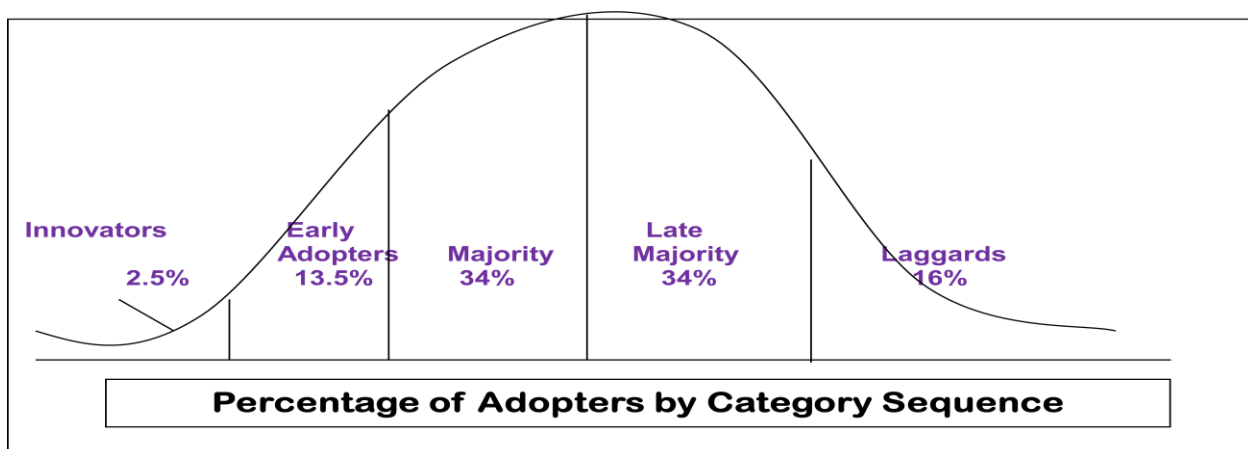
**ii) The Channels of Communication:** How quickly an innovation spreads through a market depends to a great extent on communications between the marketer and consumers, as well as communication among consumers (e.g., word-of-mouth communication).

**iii) The Social System:** The diffusion of a product usually takes place in a social system. In the context of consumer behavior, the terms market segment and target market are synonymous with the term social system used in diffusion research.

**iv) Time:** Time is the backbone of the diffusion process. It pervades the study of diffusion in three distinct but interrelated ways:

**1. The amount of Purchase Time:** refers to the amount of time that elapses between consumers' initial awareness of a new product or service and the point at which they purchase or reject it. Purchase time is an important concept because the average time a consumer takes to adopt a new product is a predictor of the overall length of times it will take for the new product to achieve widespread adoption.

**2. The Adopter Categories:** The concept of adopter categories involves a classification scheme that indicates where a consumer stands in relation to other consumers in terms of time (i.e., when he or she adopts a new product).



Another classification scheme differentiates between five different types of non-adopters:

- ❑ **The unaware group**, which consists of those consumers who do not know about the innovation or do not yet have enough information to make a decision about it;
- ❑ **Symbolic rejecters**, who know of the product but have decided it is not for them;
- ❑ **Symbolic adopters**, who believe the product might be for them but have yet to try it;
- ❑ **Trial adopters**, who have tried the product but have not made an actual purchase and
- ❑ **Trial rejecters**, who have tried the product but found it to be lacking.

**3. The Rate of Adoption:** The rate of adoption is concerned with how long it takes a new product or service to be adopted by members of a social system; that is, how quickly it takes a new product to be accepted by those who will ultimately adopt it.

**V) The Innovation Decision Process:** a more general innovation decision-making model has five stages:

- ❑ **Knowledge.** Consumer is exposed to the innovation's existence and gains some understanding of how it functions.
- ❑ **Persuasion (attitude formation).** Consumer forms favorable or unfavorable attitudes toward the innovation.
- ❑ **Decision.** Consumer puts the innovation into use.
- ❑ **Implementation.** Consumer puts the innovation into use.
- ❑ **Confirmation.** Consumer seeks reinforcement for the innovation decision but may reverse this decision if exposed to conflicting messages about the product

Looking from the perspective of diffusion process of an innovation, the commencement of interest free banking in Ethiopia can be considered as a new product or service because the amount of purchase is very low compared to the potential market, other banks on pipeline to introduce it, product is actually new to the marketplace. *Hence, the researcher's trust is that interest free banking product and services can be considered as technological innovation and the newness of IFB in Ethiopia can be measured by innovation adoption models.*

The growth of nations, organizations and individuals is highly dependent on how best they adopt the technology in their operations. In order to understand how people can accept or adopt technology innovations various models are developed and used.

Islamic banking adoption among some customers was motivated by religious zeal (Bley & Kuehn, 2004; Khan, Hassan, & Shahid, 2007; Metawa & Almosawi, 1998), while other customers considered adoption as a means to harvest additional economic benefits (Dusuki & Abdullah, 2007; Erol & El-Bdour, 1989; Gerrard & Cunningham, 1997).

However, going beyond a description of customers' religious zeal and economic benefits, investigators have also attempt to identify the causal inferences between the psychological factors and the adoption of Islamic banking using the theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), theory of planned behavior (Ajzen, 1985, 1991; Fishbein & Ajzen, 2010), decomposed theory of planned behavior (Taylor & Todd, 1995) and Innovation Diffusion Theory (Rogers, 2003). Numerous scholars have integrated two or more of these theories in their research models to explain user acceptance of the new mode of financing.

### **2.2.2 Innovations Diffusion Theory (IDT)**

Everett Rogers's Diffusion of Innovations is viewed as the pioneer of technology adoption research and most influential model. For his related work section, he reviewed other studies of how groups adopted a new technology or idea. Despite these studies coming from fields as varied as medicine, agriculture, and marketing, he found multiple commonalities.

Among Rogers Diffusion of Innovation theory, most researcher used the five Perceived Innovation attributes (Relative Advantage, Complexity, Compatibility, Observability and Trialability) whether they have significant effect and predict adoption of innovation. From 49 to 87 percent of the variance in rate of adoption is explained by five attributes (Rogers, 1983). In addition to these five perceived attributes of an innovation, such other variables as (1) the type of innovation-decision, (2) the nature of communication channels diffusing the innovation at various stages in the innovation-decision process, (3) the nature of the social system in which the innovation is diffusing, and (4) the extent of change agents' promotion efforts in diffusing the innovation, affect an innovation's rate of adoption.

However, latest studies (Kolodinsky et al., 2004; Agarwal and Prasad, 1998, Phuangthong and Malisuwan, 2008) in combination with the conclusion of a meta-analysis of 75 diffusion articles which was conducted by Tornatzky and Klein (1982), revealed that only relative advantage, compatibility and complexity were constantly linked to innovation adoption in different context. For this reason, only these three attributes can be used in this paper in predicting and explaining customers' intention towards interest free banking product and services adoption.

IDT or Rogers Adoption model:

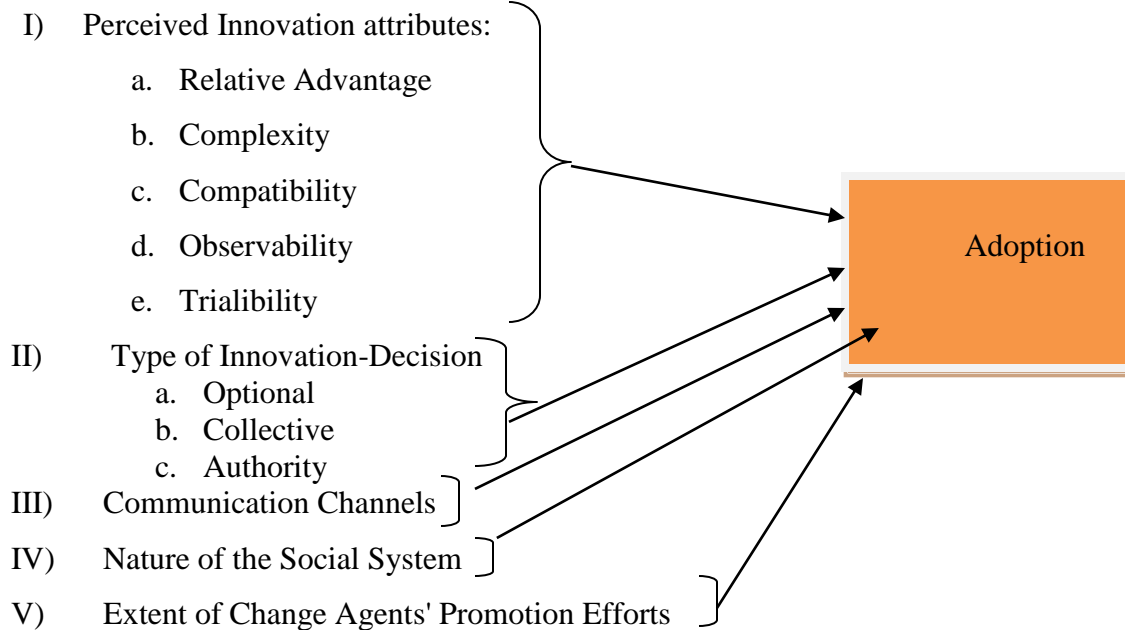


Figure 2.2.2: Innovation Diffusion Theory (Rogers 2003)

Originally, Rogers 1995 posited that the decision to adopt or reject an innovation is affected by two more product attributes: Observability and triability. Observability is the degree to which the results of an innovation are visible. Triability is the degree to which one can experiment with an innovation. Observability and triability, though generally important in adoption processes, are not so relevant in the case of the interest free banking adoption, as it is inherently kind of soft innovation and using interest free banking service and triability is at the same time since it involves rational decision. Due to this lack of observability and triability of Interest free banking service, triability by consumers is hardly available, and observability is extremely low.

### 2.2.3 The Theory of Reasoned Action (TRA)

According to The Theory of Reasoned Action (TRA), beliefs influence attitude and social norms which in turn shape a behavioral intention guiding or even dictating an individual's behavior (Ajzen & Fishbein 1980; Leach, Hennessy & Fishbein 1994). Intention is the cognitive representation of a person's readiness to perform a given behavior, and it is considered to be the immediate antecedent of behavior. TRA has two core constructs: (1) attitude toward behavior (ATB) and (2) subjective norm (SN) associated with that behavior. The attitude toward the behavior (ATB) is the previous attitude of a person toward performing that behavior. It suggests that people think about their decisions and

the possible outcomes of their actions before making any decision to be involved or not involved in a given behavior.

This theory views the intention of an individual whether to perform a given behavior or not as the immediate determinant of action, and attitude is determined by the person's beliefs and evaluation of behavioral outcomes. So an individual, who strongly believes that positive outcomes will result from performing a particular behavior, will have positive attitudes towards that behavior. Subjective norm (SN) is the social pressure exerted on the person or the decision maker to perform the behavior. SN refers to an individual's perception about what other people think of his or her behavior in question (Leach, Hennessy & Fishbein 1994). What other individuals or groups will think, agree or disagree about the decision of a person to perform a given behavior and how important these other individuals or groups are to the decision maker play a vital role. So it is normal that sometimes people will consult others before making any decisions.

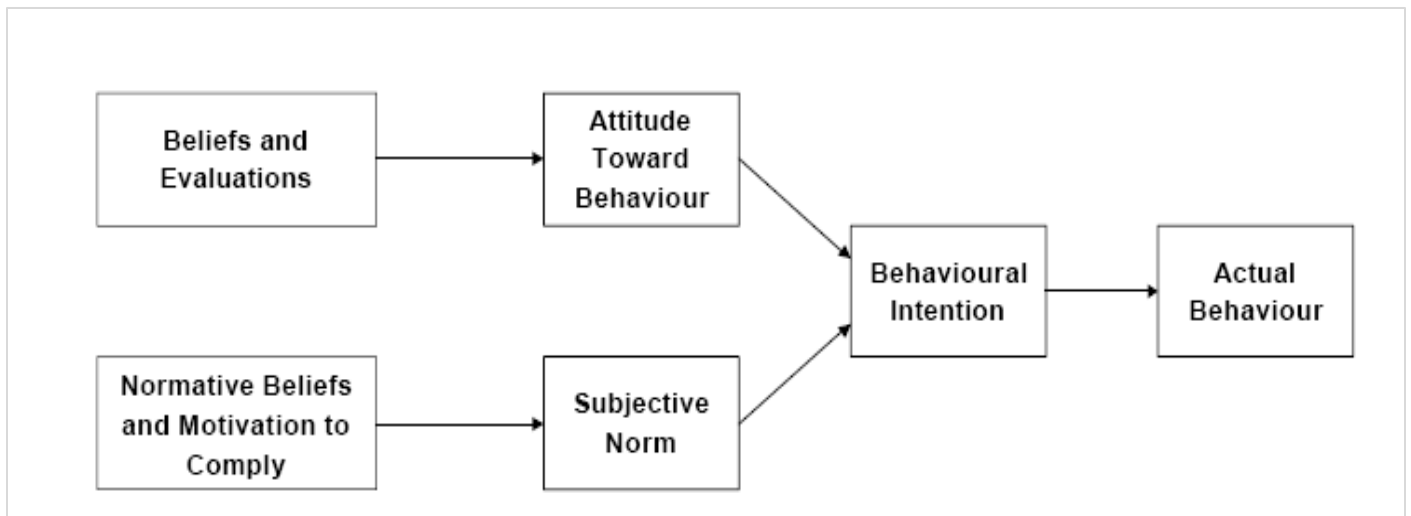


Figure 2.2.3: The Theory of Reasoned Action Conceptual Model (Ajzen & Fishbein 1980)

#### **2.2.4 Theory of Planned Behavior (TPB)**

The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), which is widely used in social psychology and marketing studies to explain the determinants of intended behaviors. TPB is a theory that predicts deliberate behavior, because behavior can be deliberative and planned, and TPB is considered to be more general than TRA because of PBC (Chau & Hu 2002a). Both the TRA and TPB suggest that behavior is

directly influenced by behavioral intention. But TPB model adds “perceived behavioral control” to the Theory of Reasoned Action.

According to Ajzen (1991), perceived behavioral control reflects beliefs regarding access to the resources needed to perform a behavior. There are two components affecting perceived behavioral control. The first element is ‘facilitating conditions’ which reflect the availability of resources needed to perform a behavior. This might include access to the time, money, skills and other specialized resources required to perform a behavior. The second element is ‘self-efficacy’. It is an individual’s self-confidence in his/her ability to perform a behavior.

According to Ajzen (1991) when individuals believe that they have more resources, they believe they have fewer obstacles and perceive greater control over the behavior, while people lacking requisite resources and confidence perceive little control over the behavior thereby reducing intentions to perform the behavior.

The Theory of Planned Behavior has been successfully applied to various situations in predicting the performance of behavior and intentions, such as predicting user intentions to use a new software (Mathieson, 1991), to perform breast self- examination (Young et al., 1991), to avoid caffeine (Madden et al., 1992) all found that TPB has a better predictive power of behavior than TRA.

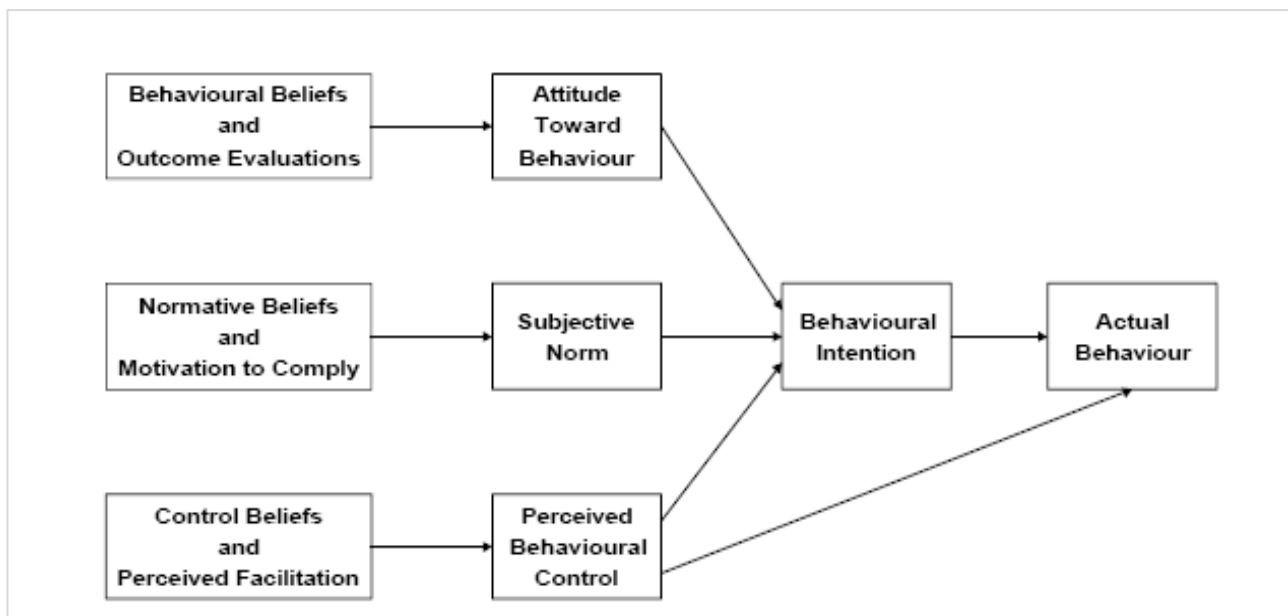
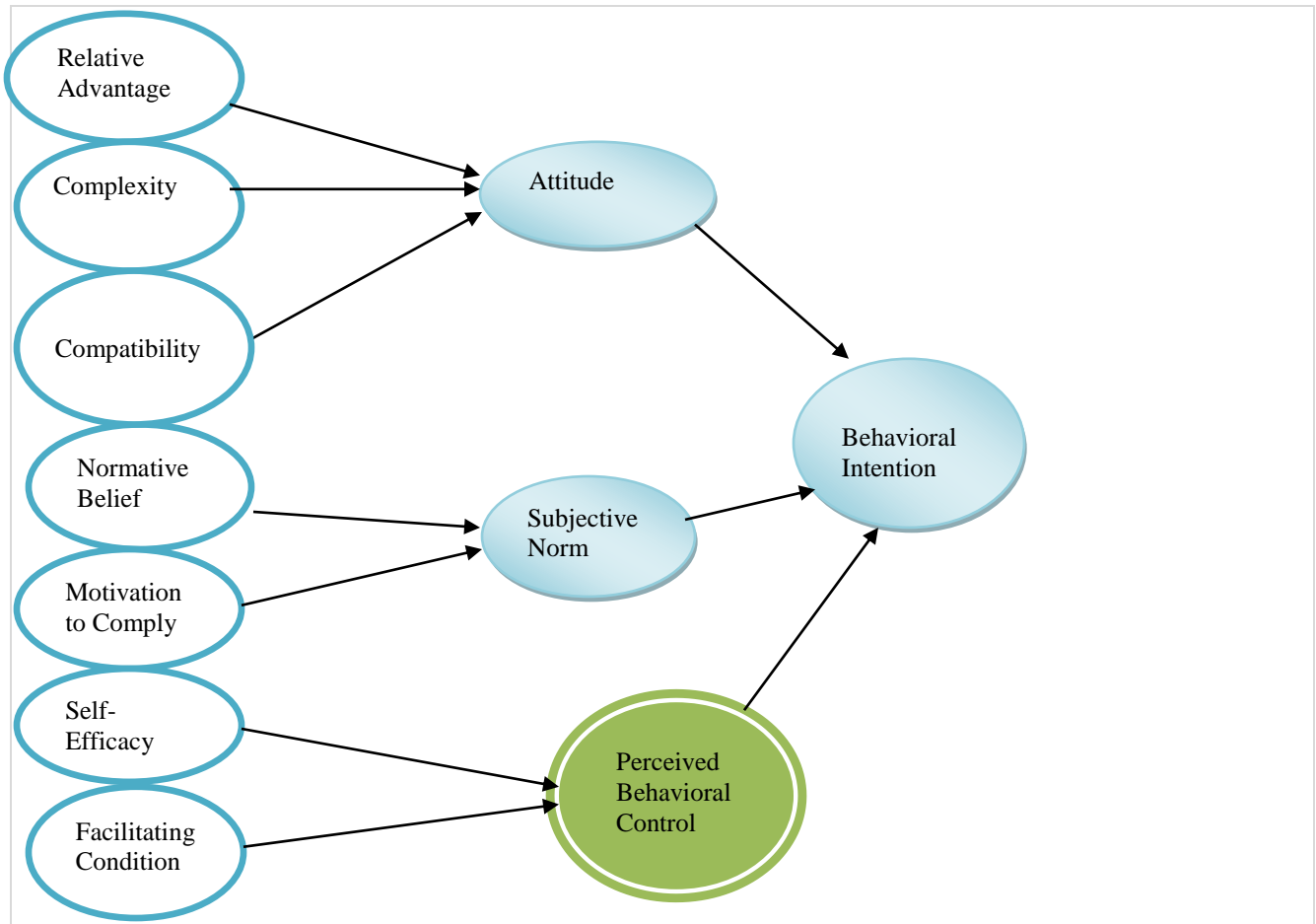


Figure 2.2.4: Theory of Planned Behavior (Source: Adopted from Pavlou, 2001)

### **2.2.5 Decomposed Theory of Planned Behavior (DTPB)**

Decomposed Theory of Planned Behavior (DTPB) indicated that a better understanding of the relationships between the belief structures and antecedents of intention requires the decomposition of attitudinal beliefs. Taylor and Todd (1995) considered that treating the three beliefs as monolithic will obscure the true influence of each of them. This has subsequently given birth to the decomposed theory of planned behavior, which is the extension of theory of planned behavior. Mathieson et al. (2001) indicated that the TRA is a general theory of human behavior while the TAM is specific to information system usage. The antecedents of attitude in the DTPB that are derived from Rogers's model (2003) are also consistent with the Technology Acceptance Model (TAM) (Davis, 1989). In the DTPB, complexity is similar to perceived ease of use, and relative advantage is comparable to perceived usefulness (Moore and Benbasat, 1991). TAM and DOI can fully cooperate to explain why people accept or reject an innovation. However, since TAM model is specific to information system usage, many researchers did not consider it in predicting adoption of IFB.

Shimp and Kavas (1984) argued that the cognitive components of belief could not be organized into a single conceptual or cognitive unit. Taylor and Todd (1995) also specified that, based on the diffusion of innovation theory, the attitudinal belief has three salient characteristics of an innovation that influence adoption, are relative advantage, complexity and compatibility (Rogers, 1995). Nevertheless, the subsequent studies proved that some of the other dimensions of innovation diffusion theory as well as other dimensions have also a significant influence on the attitude towards behavior, perceived risk and trust.



**Figure 2.2.5: Decomposed Theory of Planned Behavior (DTPB (Taylor and Todd (1995))**

Taylor and Todd (1995) showed that the decomposed model of the TPB has better explanatory power than the pure TPB and TRA models. Hence, the belief structure was decomposed into five main dimensions i.e, relative advantage, compatibility, complexity, trust and perceived risk. On the other hand, Subjective norm is composed of two normative beliefs: normative belief and motivation to comply. So, the argument of the researcher’s empirical study is that Interest free banking is a technological innovation and thus the DTPB model provides better diagnostic values compared to original TPB and greater insights into what influences individuals to adopt an innovation. DTPB is composed with:

### **2.2.5.1 Customers Attitude**

According to Fishbein and Ajzen (1991) attitude is defined as evaluative effect of individuals’ negative or positive feelings in a specific behavior performing. Actually, attitude is related to

behavioral intention of individuals considering the fact that they shape their intentions to do a specific behavior in the direction of which they have positive outcome (Tan & Teo, 2000). Likewise, Attitude toward behavior is the degree to which an individual has unfavorable or favorable appraisal or evaluation of behavior in the question (Ajzen & Fishbein, 1991). There is a tendency to think that Interest free banking is preserved for people of Islamic religion. But, Islamic institutions and instruments have developed in countries where Muslims are minority like United States, United Kingdom and South Africa. The attitude towards the behavior is determined by the sum five perceived attributes of attitudinal belief toward an innovation i.e. trust, relative advantage, compatibility, complexity and perceived risk which may influence customers' perception to adopt Interest free financial products and services.

### **Relative Advantage**

Relative advantage has been designed to reflect perceptions of customers which all or certain qualities of the proposed innovation can offer incremental value to its potential adopter comparing with present available options (Rogers, 2003; Flight et al., 2011). Rogers (1995, 2003) have indicated that relative advantage can be explained as economic profitability, discomfort decreasing, saving in time and effort, low initial cost, social prestige, and/or other potential benefits that possible user would receive by applying the current innovation. Potential adopters want to know, if the new idea is better than an existing one. Besides, several scholars have found relative advantage to be one of the best predictors of an innovations rate of adoption (Brown et al., 2003; Tan and Teo, 2000; Hsu et al., 2007; Tung & Rieck, 2005; Thambiah et al., 2011b; Gerrard and Cunningham, 2003). Roger, 2003 and Gerard, 2003 argued that adopters invariably perceived relative advantage in terms of the economic benefits and the costs resulting from the adoption of an innovation and improvements that are afforded to their social status. In addition to these, economic profitability, discomfort decreasing, saving in time and effort, low initial cost, social prestige, the immediacy of the reward and/or other potential benefits that possible user would receive by applying the current innovation, have been described as the sub-dimensions of relative advantage. The present study therefore intend to examine relative advantage within the dimension of economic benefits (profits earnings, reduce the burden of interest, reduce risk, profit and loss sharing benefits) and fairness (in the conduct of profit sharing, ethical banking system, equal distribution of wealth).

## **Complexity**

The degree to which a product, idea or innovation seems to be difficult to understand as well as use is main concept of complexity (Rogers, 2003). Actually, complexity explains required level of physical or mental efforts which is needed by individuals for adopting and continues usage of a particular innovation (Nor et al., 2010). An innovation with substantial complexity requires more technical skills and needs greater implementation and operational efforts to increase its chances of adoption (Wang et al., 2007). In addition, it has been hypothesized and proved as complexities have a negative connection with rate of adoption (Rogers, 1995; Ndubisi and Sinti (2006); Lee et al., 2011; Corrigan, 2012) due to the fact that complexity of an innovation, idea or product can act as an inhibitor for its implementation in successful way (Wang et al., 2010). In this study complexity of Interest free financial products and services is observed from whether it requires mental efforts which are needed by individuals for understanding and adopting it and whether the terms and concepts the bank used is difficult for adopting.

## **Compatibility**

Compatibility refers to the degree to which an innovation, idea or product is known to be consistent with past related experience, current values (religious and ethical values basis) and different needs of potential adopters (Rogers, 2003). An innovation is more likely to be adopted when it is compatible with social system norms as well as values (Tornatzky & Klein, 1982; Anuar et al., 2012b). Furthermore, previous studies widely have indicated that compatibility positively influencing adoption and as one of perceived attributes of innovation characteristics in concept of beliefs and past experiences as well as values affect innovation adoption in multiple different context (Tung et al., 2008; Norazah, 2006; Beiglo and Zare, 2011; Wu et al., 2007; Hernandez and Mazzon, 2007; Arts et al., 2011; Giovanis et al., 2012; Papies and Clement 2008; Elahi and Hassanzadeh, 2009). As such, in regards to banking experiences and practices, the Ethiopian banking consumers have already possess banking habits from the long operating conventional banks and Interest free banking functions and operations are new to them. Therefore, this study seeks to examine compatibility concerning IFB in the context of consumers' felt need for banking based on their religious and ethical values.

## **Perceived Trust**

In the perspective of Islamic principles, Islam gives a very high emphasis on trust and makes the 'trustworthiness' as a Muslim character (Iqbal & Mirakhor, 2007). Thus, the basic philosophy of trust dimensions in the Islamic banking system can be seen as a symbol of reliable (trustworthy), honest, fair, equal as a human being, and moral values, which are all built in the business relationship between the banks and the customers (Hanafi & Sallam, 1997).

Moorman et al. (1992) define trust as a willingness to cooperate with the exchange partner who is believed to be reliable and have integrity. Furthermore, Moorman et al. (1993) mention that the consumers trust imply consumer confidence in the integrity, honesty, willingness to cooperate, reliability, and competence of the company.

Trust in banking sector is recognized as a critical factor as customer put their money in the bank. According to Mayer et al.'s (1995), trust is the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustors, irrespective of the ability to monitor or control that other party.

Actually, trust is identified as extensively accepted predictor of adoption in different studies and scholars constantly have indicated that trust positively influence adoption of different type of innovation, products and services therefore, it should be taken into consideration by the service providers; if consumers do not feel secure they will be reluctant to use the services (Gefen, 2000, Gholami et al., 2010; Sohail and Shanmugham, 2003; Suh and Han, 2003; George, 2002; Liu and Wu, 2007; Kim et al.,2009). As Cerf (2010) asserted, trust is essential to most human transactions so banking should show trustworthiness by keeping their promise to determine how well-intentioned and truthful banking is. Farah & Higby(2001); Sipior et al. (2004) also indicated as the success of Innovative products and services adoption is highly related to Consumer's trust; Nitin Nayak et al., 2014 specified as Trust between the customers and the service provider is very Important to deal with in better way.

This paper also intend to investigate the role of trust in context of Interest free financial products and services from customers' point of view relating to whether performance of the bank is properly Shariah based service.

## **Perceived Risk**

The perceived risk barrier acts as a big barrier to the diffusion and adoption process; consumers are fearful of purchase, usage and consumption of innovative offerings, and thereby continue to patronize the existing alternatives, rather than adopt new ones (for fear of making a wrong decision).

Risk and uncertainty were used synonymously even though variation between the two exists (Peter & Ryan, 1976). Whereas risk connotes known probability, uncertainty does not have a known probability of occurrence (Knight, 2012). In Conventional banking, risk is wholly transferred to other while in Islamic banking risk is shared among bank, lender and borrower.

According to Visser (2009), the major difference between Islamic and conventional banking lies in the prohibition of Gharar (excessive uncertainty), prohibition of Maysir (gambling) and the prohibition of riba (interest).

Iqbal, Ahmed and Khan (1998) added that risk sharing, emphasis on productivity rather than credit worthiness as well as the moral dimensions of Islamic banking are distinctive features of latter. And this is supported by Zaher and Hassan (2001).

These features that make Islamic banking different than the conventional, subsequently dictated that the studies on customers' behaviour in general and patronization behaviour in particular should be undertaken differently, by taking into account other dimensions that reflect the specificity and features of interest free banking.

Innovators are risk takers, and are ever willing to take risks. Uncertainty is measured in this study by reference to the interest free banking services aspect related to the profits and losses sharing and the transparency in calculating various fees.

The most important feature of Islamic Banking is sharing of risk among investors, the bank and the borrowers (Ahmad, Rehman & Humayoun, 2011). Different studies indicate that perceived risk has a significant negative influence on the attitude towards Islamic banking services adoption (Ismail (2017), Teo and Pok (2003), Fisher and Chu (2009), Nor (2005), as well as Sharma and Bock (2005).

### **2.2.5.2 Subjective Norm**

Subjective norm can simply be defined as the individual perception of the likelihood of significant others to approve or disapprove behavior and the motivation to comply with those perceptions (Ajzen, 1991; Ajzen and Fishbein, 1977). To elaborate more differently, subjective norm is the social pressure to act in a particular manner taking into cognizance the positive or negative consequences emanating from people that can exert their influence on someone's action. Subjective norm is determined by the sum of normative beliefs which reflects the perceived behavioral expectation or opinions of important referents individuals or groups. In this study subjective norm is composed of two normative beliefs:

#### **Valued Person Opinion**

Valued person opinion influences is defined as a group consisting of parents and siblings; from parents a person acquires an orientation toward religion, politics and economics, and a sense of personal ambition, self worth, and love. It emphasizes on relationship between the people under the family control (Rouibah, 2008). The opinion of a reference group is an important factor influencing the adoption of banking product (Du, 2002, p.4). According to Jermun and Eugence (1998), greater response occurs when opinion leaders are adopting an innovation. Thus, this study intends to investigate the extent of influence by recommendations by Family, Friends, religious persons, religious institutions and bankers towards Interest free banking adoption.

#### **Mass Media Influences**

Mass media influences is defined as non-personal communication channel consisting of print media (newspapers and magazines); broadcast media (radio and televisions); and network media (telephone, cable, satellite, wireless) (Kotler, 2006). Promotional efforts can be a mix of promotions such as advertisements, personal selling, sales campaigns, public relations, and direct marketing. Therefore, the key factor in change agent's success is the amount of effort spent in promoting the product and services to the customer, so that the product reaches the customer eventually and promotional efforts increase the adoption rate (Thambiah et al., 2011b). Past studies shows as Islamic banks have so far not used the media appropriately for example, even Muslims are not very much aware that the Islamic banking is being practiced in the world (Bley and Kuehn, 2004). However, limited studies have examined the influence of promotional efforts

in the area of Islamic banking adoption and most of these studies are confined to only mass-media advertisements (Erol et al, 1990; Kader, 1993; Kader, 1995; Gerrard and Cunningham, 1997; Othman and Oven, 2002). Thus, this study intends to investigate the extent of influence by TV and Radio advertisements, bank pamphlet or brochures and bank website towards Interest free banking adoption. Subjective norms have been found to be more important in the early stages of innovation implementation when users have limited direct experience from which to develop attitudes (Taylor & Todd, 1995). This paper also intend to investigate the role of family, friends, religious person, religious organization, bankers and media have on customers attitude and behavioral intention on adopting Interest free financial products and services.

### **2.2.5.3 Perceived Behavioral Control**

Perceived behavioral control is simply defined as people's perceptions of their ability to perform a given behavior or factors that may impede the performance of the behavior (Ajzen, 1991, 2011). It measures the degree to which a person has control over his behavior and how confident he feels about being able to perform or not to perform the behavior. This definition encompasses two components:-

#### **Self-efficacy**

Self-efficacy is defined as individual's self-confidence in his or her ability to perform a behavior. It predicts intentions to use a wide range of technologically advanced products. Self efficacy indicated in various study as it is positively influencing behavioral control of adopter (Sharma and Bock, 2005; Teo and Pok, 2003; Nor, K.M., 2005; Taylor and Todd, 1995a; Ndubisi, N.O., 2004; and Püschel, et al., 2010). Thus, this study intends to investigate the extent influence of knowledge and confidence of customers on their behavioral control towards Interest free banking adoption.

#### **Facilitating conditions**

It reflects the availability of resources needed to engage in the behavior. It refers to the easy access of technological resources and infrastructure. The government can play an intervention and leadership role in the diffusion of innovation and as supporting technological infrastructures become easily and readily available. Facilitating conditions is identified as accepted predictor of

adoption in different studies and scholars indicated that it positively influence adoption of different type of innovation, products and services (Nor, 2005; To, et al., 2008; Sharma and Bock, 2005; Taylor and Todd, 1995b; Echchabi and Aziz, 2012). Thus, this study intends to investigate the extent of behavioral control of customers influenced by access of technological resources and government intervention and leadership role towards Interest free banking adoption.

The concept of perceived behavioral control has been investigated empirically and findings demonstrate that it positively predicted intention (Alam et al., 2012; Alam and Sayuti, 2011; Amin, Ab Rahman, and Abdul Razak, 2012; Amin et al., 2012). Which means that people's ability in terms of money and resources have a significant effect on customer's intention and behavior.

### **Comparison of Theories**

Although the TAM, TRA, TPB, DTPB and IDT focus on different determinants to explain the consumer behavior in technology adoption, these theories share some similarities. Firstly, IDT model assumed a direct relationship between innovation attributes and the actual behavior/adoption. Secondly, TRA TPB and DTPB model assume an attitude- intention-behavior relationship, that is, cognitive and normative or affective beliefs form attitude, which, in turn, has influence on behavioral intention and actual usage of behavior.

Thirdly, perceived behavioral control in TPB refers to one's perception of whether a behavior is under his control and whether he has access to resources and opportunities required to facilitate a behavior affect both the behavioral intention and actual usage.

### **2.3 Empirical Review**

Many studies have been undertaken relating to the attitude and perception of customers toward Islamic banking adoption among that Erol and El-Bdour (1989) ; Naser et al. (1999); Ahmad and Haron (2002); Ramdhony, (2013); Echchabi and Abdul-Aziz, (2012); Islam, (2012); Turnbull and Gibbs (1989); Laroche et al. (1986) ; Zineldin (1996) revealed that apart from religious feeling, other factors, such as relative advantage, trust, compatibility, Valued group opinion influence, and facilitating conditions are important in choosing products and services in Islamic bank. While, Karim and Affif, (2004) indicated as Islamic banks are meant for Islamic

consumers only, limited facilities provided compared to conventional banks, do not have a huge customer base and not sure of increasing popularity of Islamic banking products among non-Muslims. In addition Sharofiddin & Bin-Yousoff, (2013) investigated the challenges of conventional banking practice and prospects of introducing an Islamic bank to Tajikistan. The findings of this study show that relative advantage and compatibility have a significant impact on the adoption of Islamic banking system in Tajikistan. Also, the other three independent variables such as self efficacy (product knowledge), trust and social norm have an insignificant relationship with the adoption of Islamic banking in Tajikistan. Ahmad and Haron (2002); Fada, et al., (2012); Gerrard and Cunningham (1997) studied Perception towards Islamic Banking and found that as knowledge of Islamic banking was limited, misconception of the subject matter and a general lack of awareness of the culture of Islamic banking in both Islamic and non-Islamic communities, the providers of Islamic Banking products & services have not done enough in educating customers and marketing their products that resulting unpopularity of product and service among the customers. Similarly Malhotra et al., (2005) reported on his study customers' perception of service quality in developing countries as there is significantly different from the perception of bank customers in developed countries like the USA. Not only between countries that even if within countries the study conducted by Thambiah et.al, (2011) shows that perception of urban banking customers in comparison with rural customers seemed to vary in terms of perceived complexity, perceived risk, self efficacy and Media influence. According to the study made on factors affecting on adoption of Islamic banking in Morocco, complexity does not have any influence on attitude and self efficacy does not have any influence on perceived behavioural control as well where as relative advantage, compatibility, trust as well as subjective norm, have a significant impact on the attitude towards Islamic banking services in Morocco. Noman et al., (2007); Guyo & Adan (2013), studied the banking behavior of Islamic bank customers in Bangladesh and Kenya and the findings show that the religious principles remained at the heart of people's preference for Islamic banks. This indicated that the banks should remain highly dedicated to Islamic principles. In addition the study of Abdul Ghafoor Awan & Maliha Azhar, 2014 find out relationship among demographic variables (religion, high profit & low service charges, influence of friends & family, service quality, responsive attitude of staff, mass media & bank image) and consumer behavior toward Islamic banking in Pakistan. The findings

show positive and significant relationship among all variables of demographic profile on behavior of customers towards adoption of Islamic banking.

### **Empirical Review at National Level**

In Ethiopia few studies have been undertaken as the interest free banking also has short history. Among few Mohamed Muhumed, (2012) who studied Islamic banking prospect, opportunities and challenges in Ethiopia and concluded Muslims everywhere want Islamic Banking and offers huge opportunities to exploit that Islamic banking face the challenge of lack of awareness and understanding, legal, supervisory, regulatory and/or institutional challenge, negative attitude of people towards Islamic banking (wrong association with religion), lack of trained human resource, capital resource constraints and lack of suitable banking policies.

Shaik Abdul Majeed, (2014) that studied the Role and Progress of Islamic Banking in India, Ethiopia and Rest of the World and the studies result Ethiopia of economic development, largest population and well growing condition of financial markets and infrastructure areas the National Bank of Ethiopia (NBE) directive allowed banks to provide interest-free banking service using a separate window along with their other banking services to serve the public and Oromia International Bank, a private financial institution, becomes the first to implement interest-free banking [Islamic banking] in Ethiopia.

In addition, Teferi (2015) has studied on “Contribution of IFB on Economic Development and Its Prospect in Ethiopia”, and his work has identified that introduction of IFB does not only create inclusive financial system for the Muslim population but also has a potential to influence and enhance the economic development of the country through resource mobilization and employment creation by encouraging people to use the banking system. This study focused on contribution of IFB on economic development and its prospects rather than factors affecting adoption or development of IFB.

Similarly, Mohammed (2012) has studied the “Prospects, Opportunities and Challenges of Islamic Banking in Ethiopia” and his work has identified the potential challenges as: lack of awareness, regulatory and supervisory challenges, institutional challenges, lack of support and link institutions, gap in research and development in Islamic studies, lack of qualified human resource as well as wrongful association with specific religion and the global terrorism. This

study was undertaken before the practical introduction of the IFB in the country. Therefore, it was not based on actual observation of facts on the ground.

Karima (2016) study has identified the challenges to deliver IFB products as lack of commitment of the bank, lack of Shariah advisor, lack of supportive supervisory directive, lack of capacity to deliver full range of IFB products, lack of awareness of customer, inadequate marketing and promotion, double taxation, nature of IFB products, inaccessibility of IFB products, the IFB being delivered in a Window model. The study lacks model specification and lacks in exploring behavioral intention to adopt interest free banking.

Analyzing the above empirical review at international level most of studies have varies by theoretical models and components of variables that invites researcher to contribute some standard model of adoption particularly on interest free banking. In addition, there is no research undertaken in Ethiopia regarding customers' intention towards adoption of IFB product and services. Hence, this study emphasized on Interest free financial products and services to determine their intention toward interest-free financial product and services at bank levels.

## **2.4 Conceptual Framework**

Innovation diffusion based research uses individual innovation diffusion characteristics to predict the adoption of behavior and focuses on user characteristics, innovative characteristics, information resources, and communication channels. All these adoption prediction can be more reflected by DTPB focusing on specific beliefs.

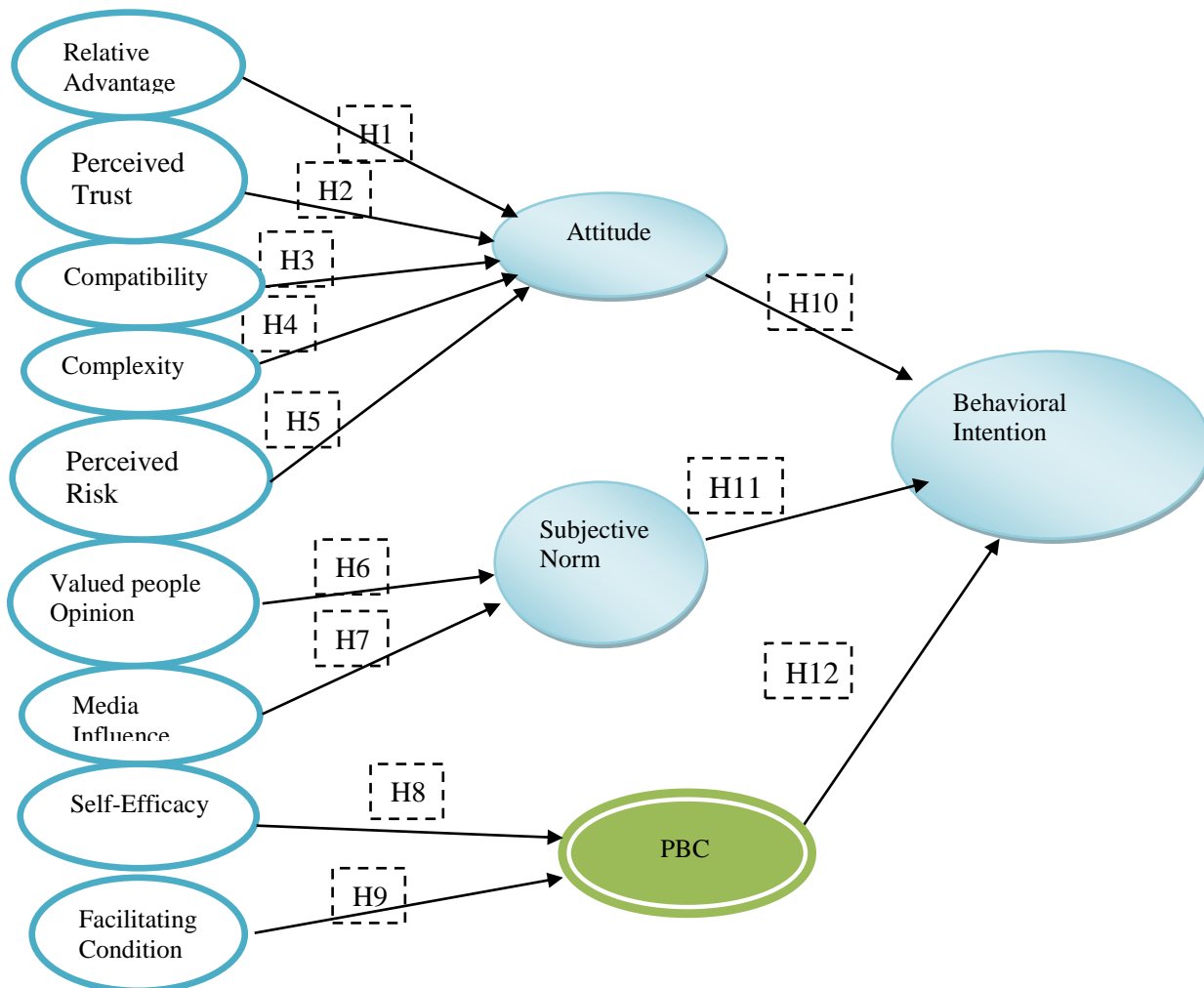
In this study, the researcher selected Decomposed Theory of Planned Behavior as theoretical foundation based on four rationales. 1) DTPB is one of the most influential and comprehensive theories for studying adoption processes. 2) Though DTPB applied on highly information technology adoption models, the model has also widely used on Islamic banking Adoption; 3) The DTPB model can be considered as holistic model of innovation adoption which represents the TRA, PBD and IDT core constructs decomposing beliefs into multidimensional constructs. 4) Initially, the TRA and TPB has been widely applied in its original or extended form to predict and explain buying intentions and changing behavior of consumers. Later, these theories are also used and modified by other researchers in predicting and explaining innovation acceptance. Among, the DTPB was modified from these models that can be used of predicting and explaining the changing behavior of consumers in addition to acceptance model of innovation.

Hence, the researchers' conviction is that the DTPB is consistent to predict and explain factors influencing customer's adoption of IFB in Ethiopia.

A review of literature on DTPB (Puschel et al., 2010; Shih & Fang, 2004; Taylor & Todd, 1995) indicates that the explanatory power of DTPB is higher than that of pure TPB. DTPB also provides better diagnostic values compared to original TPB and greater insights into what influences individuals to adopt an innovation. Therefore, the researcher proposed comprehensive conceptual model for Interest free banking adoption based on the DTPB with additional constructs of trust and perceived risk as components of attitude believing they are relevant and then proceed to test the relationship between them.

By decomposing beliefs, the relationships becomes clearer and more readily understood that can provide stable set of beliefs that can be applied across a variety of settings. Finally, by focusing on specific beliefs, the model becomes more managerially relevant, pointing to specific factor affecting adoption.

The purpose of the study was to explore the behavior of customers towards interest-free banking by using Customers Attitude (trust, relative advantage, complexity, compatibility and perceived risk); Referent group (Valued group opinion and mass media influence) and perceived behavioral control (self efficacy and facilitating condition) as well as mainly to find out which variables mainly influence customers adoption of interest-free financial product and services in the context of Ethiopia using the theory of Decomposed planning behavior with some modification.



**Figure 2.4.6: Proposed Research Model**

All Hypotheses are proposed based on Taylor and Todd (1995) except Hypothesis 2 and Hypothesis 5 which is the contribution of this study, which is added based on previous empirical studies and literature review. Furthermore, these hypotheses were further verified for their validity by empirical data.

The following hypotheses are formulated based on the conceptual framework constructed under review of literature:

- **H1:** Relative advantage has a positive influence on the attitude towards IFB adoption;
- **H2:** Perceived Trust has a positive influence on the attitude towards IFB adoption;
- **H3:** Compatibility has a positive influence on the attitude towards IFB adoption;
- **H4:** Complexity has a negative influence on the attitude towards IFB adoption;
- **H5:** Perceived risk has a negative influence on the attitude towards IFB adoption;
- **H6:** Valued people opinion has a positive influence on subjective norm towards IFB adoption;

- **H7:** Media has a positive influence on subjective norm towards IFB adoption;
- **H8:** Self efficacy has a positive influence on the perceived behavioral control towards IFB adoption;
- **H9:** Facilitating conditions have a positive influence on the perceived behavioral control towards IFB adoption;
- **H10:** Attitude has a positive influence on the intention to adopt IFB;
- **H11:** Subjective norm has a positive influence on the intention to adopt IFB;
- **H12:** Perceived behavioral control has a positive influence on the intention to adopt IFB;

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Chapter Overview/Introduction**

Under this chapter, the research methodology carried out was discussed. Quantitative primary data was used to elaborate how the research is carried out in term of research design, data collection method, sampling design, research instrument, constructs measurement, data processing and data analysis. The practice of the research was explained further in this chapter.

#### **3.2 Research Approach**

The main object of this study is to find factor influencing behavioral intention of customers to adopt Interest free banking in Ethiopia. For achieving this, the researcher have chosen a structured framework and developed research hypothesis by applying exploratory factor analysis. Cross sectional method of analysis was adopted as the objective was both the study of the population and the time of investigation during adoption. The researcher analyzed the data collected from sample customers and generalized the data to population. So this theory was tested by using survey method of quantitative research.

In this study, the researcher collected quantitative data and analyzed the data by applying factor analysis using WarpPLS 5 with SPSS 20. Factor analysis is a statistical approach that can be used to analyze interrelationships among a large number of variables and to explain these variables in terms of their common underlying dimensions (factor) (Andy, 2009).

The researcher selected factor analysis using structural Equation model (SEM) based on the following criteria:

- The research model is multivariate have multi-causal relationships among different variables that need SEM,
- The research objectives is exploratory study
- The research Model is somewhat complex since it engages indirect effect variables using latent variable indicator variable;
- The research model includes formative constructs.

The researcher selected structural equation analyses to determine the relative contributions of attitudes, subjective norms, and perceptions of behavioral control to the prediction of intentions; and the relative contributions of intentions and perceptions of control to the prediction of behavior. According to Ajzen Subjective norm and perceived behavioral control is formative measure. Formative measure is a composite created by aggregating the formative items of a construct using their respective item weights. This assessment involves examining each formative item's weight, sign, and magnitude (Götz et al., 2010).

Table 3.2.2: Comparison between SEM techniques

<b>Criterion</b>	<b>PLS</b>	<b>LISREL</b>
Approach	Variance based	Covariance based
Assumptions	Predictor specification (non parametric)	Typically multivariate normal distribution and independent observations (parametric)
Parameter estimates	Consistent as indicators and sample size increase (i.e., consistency at large)	Consistent
Latent variable scores	Explicitly estimated	Indeterminate
Epistemic relationship between a latent variable and its measures	Can be modeled in either formative or reflective mode	Typically only with reflective indicators
Implications	Optimal for prediction accuracy	Optimal for parameter accuracy
Model complexity	Large complexity (e.g., 100 constructs and 1000 indicators)	Small to moderate complexity (e.g., less than 100 indicators)
Sample size 800.	Power analysis based on the portion of the model with the largest number of predictors. Minimal recommendations range from 30 to 100 cases.	Ideally based on power analysis of specific model – minimal recommendations range from 200 to

(source: Chin and Newsted 1999)

### **3.3 Research Design/Type**

The starting point of this research purpose is the research problem, what are the factors influencing adoptions of interest free banking, depending on research problem literature review has been conducted in order to specify research questions and construct framework. The research purpose and research question is to reveal the relationship between the independent variable and dependent variables and to predict the relationship. Therefore the researcher used exploratory factor analysis method using both SPSS 20 and WarpPLS 5 statistics.

### **3.4 Sampling Design**

#### **3.4.1 Target Population**

The population of the study is the customers of IFB in Ethiopia. But the target populations of the survey were customers of IFB at Oromia International Bank across the country. The Bank is selected on a purposive basis because the Bank is pioneer in commencing IFB product and Service in Ethiopia and the Bank has wider customer basis that will serves significant number of IFB customers. Other banks those commenced IFB were not go further on IFB relative to OIB that is difficult collect data from disbursed and small population from time and resource limit. Looking into their deposit portfolio from corporate balance expect OIB who constitute more than 13.2% as of June 30,2016 and increased to 14% at as of December 31, 2016 while other banks those commenced Interest free banking has small share. For instance, Unite Bank mobilized deposit 219.7 million (hold 1.6% from total deposit), Cooperative Bank of Oromia Birr 80.5 million (hold 0.95% from total deposit) as of June 30, 2016, Commercial Bank of Ethiopia Birr 2.5 billion (0.88% from total deposit as of March 31, 2016). Hence the researcher, selected OIB's IFB customer as a target population. Furthermore, as the population is expected to homogenous, investigating the problem from large number sample size is adequate for the research representative.

#### **3.4.2 Sampling Frame**

The Sample Frame from target population is further spitted into small sample units of IFB department staff, IFB customers and Separated Window of IFB staffs. IFB account holder of bank clients will be considered as sample frame of current research, the front-line employees, IFB department staffs and branch manager of the banks also targeted to know the intentions of customers towards adoption of IFB; because they are one that participating on implementing and promoting the products and services provided by the bank to its customers. Therefore, while implementing the products and services they have direct interaction with customers, hence are the most likely to perceive their changing needs (De Brentani, 2001).

#### **3.4.3 Sampling Technique**

The researcher used both probability sampling and non probability sampling; particularly, simple random sampling for branch selection, convenience sampling for customer selection and judgmental sampling for bank selection. To meet the research objectives, the responses were taken from those people who are able to provide valid responses to the questions. Hence, people who had access to interest free banking product and service and contact with customer was selected as the target group for addressing the objectives because most of the research variables placed an emphasis on people who are able to understand and provide valid responses to the questions.

### 3.4.4 Sampling Size

To calculate sample size Yamane (1967:886) simplified formula proportion is used. A 95% confidence level, P = 0.5 and e=+5% are assumed.

$$n = \frac{N}{1+N(e)^2}$$

Where n is the sample size, N is the population size, and “e” is the level of precision.

The populations of the study include all customers and staffs of OIB of all branches. Currently, OIB has 149,313 IFB customers, 25 IFB department staffs and 205 IFB window staff. Therefore, the total target population is 149,543. Using Yamane (1967:886) simplified formula proportion we can get a sample size of 388.

$$n = \frac{149,543}{1+149543(0.05)^2} = 399$$

The sample size of branches were selected by using sample determination method developed by Carvalho (1984) due to time and financial limitations and the nature the population of, that applied to determine a sample size is:

Table 3.4.4.3: Branch Sample size determination

No of branch	51-90	91-150	151-280	281-500	501-1200	1201-3200	3201-10000	10,001-35,000	35001-150,000
Small	5	8	13	20	32	50	80	125	200
Medium	13	20	32	50	80	125	200	315	500
Large	20	32	50	80	125	200	315	500	800

There are 205 OIB branches in across the country at as of December 31, 2016. Therefore, according to Carvalho (1984), 50 sample branches are optimal considering the large sample size from 205 branches. Proportion of customers size to sample of branch selected is  $399/50=8$  which means that 8 of customers to be selected per branch including IFB separated window staff. Therefore, sample of 50 branches, based on the order of opening, were selected by using simple random sampling specifically using random number generator that allow all branches to get equal chance of being selected. In addition, convenience sampling was used to pick IFB customers a sample of 8 customers per branch as all IFB customers may not appear to the bank during the data collection.

### **3.5 Source of Data**

This study used primary source of data that were collected through questionnaires. This primary data source was collected from IFB customers, IFB functional staff at Head Office and staffs of separated windows.

### **3.6 Data Collection Method**

The researcher preferred to distribute the self-administered questionnaires to 50 branches of Oromia International Bank to each customer and finally collected the instruments. Because self-administrated questionnaires have the advantage of obtaining data more efficiently in terms of time, energy, and costs (Sekaran, 2003).

### **3.7 Data Collection Instrument**

This instrument of data collection consisted of two sections: In first section it deals with obtaining socio-demographic information about the respondents and the second section was about collecting data through questioner which was measured by 5-likert scale predictor variables influencing Adoption to interest free banking. The questionnaires was structured in close-ended type and responses to the questions were measured on a five Likert rating scale where: Strongly Disagree (SD) =1; Disagree (D) = 2; Neutral (N) =3; 1 Agree (A) = 4; and Strongly Agree (SA) = 5.

### **3.8 Data Analysis Method**

The researcher analyzed the data collected through survey to statistical population concerning the adoption of IFB product and service by customers. The data collected via questionnaires was analyzed with exploratory factor analysis using statistical package for social scientists (SPSS 20) and WarpPLS 5. Thus, both the strength of the relationship between variables and the influence of manifest variable and latent variable and statistical significance were assessed.

### **3.9 Validity and Reliability**

Reliability and validity are the essential criteria for assessing the accuracy and precision of the quantitative aspects of this research. They are also essential criteria for measuring the research quality and especially the procedures used to measure the constructs of interest.

#### **3.9.1 Validity**

To determine the potential effectiveness of the questionnaire and whether further revision is needed prior to conducting the survey, the questionnaire was pilot tested. In addition, the pilot study was conducted to ensure the validity, sequence and relevance of the questionnaire to this study. The researcher distributed the questionnaire to 10 IFB staffs and 20 IFB customers as a sample group. The subjects were asked if they have any problems understanding the questionnaire or have specific comments regarding the questionnaire. Comments were solicited on the clarity of the questions and got amendments.

The questionnaire was originally written in English and then translated into Amharic to ensure clarity and interpretation of meaning. The translated version was included in the Appendix.

In addition, the average variance extracted (AVE) of was also used to assess the convergent validities while the discriminate validity was assessed by examining whether the squared roots of AVE exceeded the correlations between all possible pairs of latent variable. It is reliability if the question-statements (or other measures) associated with each latent variable are understood in the same way by different respondents.

#### **3.9.2 Reliability**

Reliability of a measure is an indication of the consistency of the instrument. The property of the research model was examined in terms of reliability, composite reliability, convergent validity, and discriminate validity. As suggested in the literature (Lee et al., 2009; Yu, 2011), Cronbach's alpha, and composite reliability was used to assess the reliability. The recommended minimum

acceptable level of reliability “alpha” and composite reliability is 0.60 and above Hair et al (1998) criterion, and greater than 0.50 using the Nunnally (1978) criterion.

### **3.10 Research Ethics**

As this study required the involvement of persons, (businessmen and employees) different ethical issues was addressed. The consideration of these ethical issues was necessary for the purpose of ensuring the privacy of participants as well as the confidentiality of respondents’ data. In order to secure the consent of the selected participants, the researcher clarified the purpose of the study and the role of participants in completion of the study. The researcher also informed participants that their participation in the study was based on their willingness, and the idea and comments they raised highly honored and kept confidential. In the final result of the research paper personal information was not included, only the summery of relevant data that helped in answering the research questions was incorporated.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

#### 4.1 Demographic and Descriptive Statistics

Out of these 399 respondents, only 360 were properly filled and returned, thus a response rate of 90.2%, which is considered acceptable (Dusuki and Abdullah, 2007). Descriptive analysis would be used to achieve the first specific objectives, primary data that were collected through questionnaires, demographic characteristics of respondents and mean of variables.

The following table represents the demographic characteristics of the respondents.

Table 4.1.4: Demographic characteristics

<b>Variable</b>	<b>Classification</b>	<b>of</b>	<b>Frequency</b>	<b>Percentage</b>
Gender	Male		243	67.5
	Female		117	32.5
Age	Below 20		6	1.7
	20-30		159	44.2
	31-40		165	45.8
	41-50		18	5.0
	Above 50		12	3.3
Religion	Muslim		347	96.4
	Christian		8	2.2
	Wakeffata		5	1.4
Education level	Less than Grade 10		19	5.3
	Certificate/Diploma		118	32.8
	Bachelors		173	48.1
	Masters		50	13.9
Marital Status	Single		163	45.3
	Married		197	54.7
Type of employment	Public sector		41	11.4
	Private sector		147	40.8
	Self employed		155	43.1
	others		17	4.7
Awareness level	Definitely I know		98	27.2
	To some extent I know		256	71.1
	I do not know		6	1.7
Type of Window	Interest free banking		259	71.94
	Conventional Bank		37	10.28

	Both	64	17.78
Year of customers	Less than 1 year	24	6.7
	1-3	162	45.0
	4-6	121	33.6
	Above 6 years	53	14.7

The result shows that most of the respondents were male (67.5 %) while the percentage of female is 32.5%.

The results for respondents' age as depicted in the above table specifies that the majority of the customers (about 45.8 percent) fall between the age bracket 31 to 40 years, 44.2 percent of the respondents aged between 21 to 30 years. This might be related to the reality that the active age category.

The result shows that most of the respondents 96.4% were Muslim. This shows that Interest free banking in line with the prime purpose for Muslims customers though it was designed for any customer. In addition, 54.7% respondents were married and 48.1% of respondents have bachelor degree, 43.1% was self employed. 71.11% of respondents were to some extent know existence of IFB globally and or locally. This implies majority of the customer have no deep knowledge about interest free banking.

## **4.2 Data Analysis and Hypothesis Examination**

Motivated by the explanatory and predictive of power of DTPB, this study has been launched to investigate factors influencing customers' behavioral intention to adopt Interest Free Banking in the context of Ethiopia. Also, in the light of this study, influence of perceived trust and perceived risk have been tested with the hypothesized in the current study.

Further, this study intends to examine the applicability and adaptability of the DTPB model in the Ethiopian context. Indeed, to the researcher knowledge, these types of analysis are missing from the Ethiopian literature.

### **4.2.1 Measurement Model**

Before analyzing the data by WarpPLS 5 statistical tool, the data was first inserted in to SPSS and a preliminary stage of measurement item was first identified by an exploratory factor analysis using by principal components analysis (PCA). The psychometric properties of the

measurement model in terms of internal consistency, reliability, convergent validity, and discriminant validity were evaluated. By using SPSS 20, principal component analysis, Measure of sampling adequacy, reliability and validity measure were verified. Based this, measurement item was rearranged by principal component analysis a total number of 54 items was loaded, whereas these items were split into 13 factors. But two items were recorded lower loading below the minimum criteria of 0.30 for a sample of 350 or above (Hair et.al., 1998) and removed from the items. Factor analysis is used as a data reduction technique which is also used to identify then loaded items that tapped on a same construct. It has the ability to narrow down a large sample of data into smaller one. Emory and Cooper (1991) argued that factor analysis can help researchers in determining the belongings of the variables. In this case, the researcher has applied principal component analysis in order to validate the construct validity of the items. The items measuring the attitude and complexity did not produce a useful factor.

In line with the principal component analysis, the measure of sampling adequacy by Kaiser-Meyer-Olkin meet the threshold level 0.7 which was 0.727 and overall Cronbach alpha reliability was 0.849 which is the above the required level of 0.6.

Table 4.2.5: Cronbach Alpha reliability

Reliability Statistics by Cronbach's Alpha	.849	51 items
The measure of sampling adequacy by Kaiser-Meyer-Olkin	.727	

Subsequently, the constructs and items were used as input in an exploratory factor analysis to test the Measurement model, using WarpPLS 5. The structural equation modeling (SEM) WarpPLS 5.0 statistical tool was used for data analysis. The WarpPLS 5.0 applies the partial least squares and is a powerful statistical tool because it has ten powerful Goodness-of-fit indices, p-values and multicollinearity estimates. These include: Average path coefficient (APC), average r-squared (ARS) and average variance inflation factor (AVIF), average adjusted R-squared (AARS), average full collinearity VIF (AFVIF), Tenenhaus GoF (GoF), Sympton's paradox ratio (SPR), R-squared contribution ratio (RSCR), statistical suppression ratio (SSR), and nonlinear bivariate causality direction ratio (NLBCDR) (Kock, 2013). The PLS-SEM was favorably selected in this study because it is better suited for complex models with large number of constructs and links (Pavlou & Fygenson, 2006; Ahuja et al., 2007; Au et al., 2008) and

equally important PLS-SEM is more suitable than other statistical tools for testing the effects of moderators (Pavlou & Sawy, 2006; Limayem et al., 2007). Finally, In order to get an acceptable measurement factors, some items were removed in addition to the principal component analysis.

#### 4.2.2 Reliability and Validity Using WarpPLS

A measurement instrument has good reliability if the question-statements (or other measures) associated with each latent variable are understood in the same way by different respondents.

Therefore, all Cranbach alpha coefficients are above 0.6 ranging from 0.612 to 0.830 demonstrating good internal consistence.

However, Cronbach alpha is based on a restrictive assumption that all indicators are equally important. An alternative conceptualization of reliability is that it represents the proportion of measure variance attributable to the underlying dimension (Werts et al. 1974). According to Chin et al. (1996,p.33), while Cronbach’s alpha with its assumption of parallel measures represents a lower bound estimate of internal consistency, a better estimate can be gained using the composite reliability.

Similarly, composite reliability of all latent variables is above 0.7 ranging from 0.710 to 0.830 for all reflective measure. On the other hand the average variance extraction of all variable is above the threshold of 0.5. The AVE threshold frequently recommended for acceptable validity is 0.5 (Fornell & Larcker, 1981), and applies only to reflective latent variables. If a latent variable does not satisfy any of these criteria, the reason will often be one or a few indicators that load weakly on the latent variable that invite for removal of lower loading indicators.

Table 4.2. 6: Latent Variable Coefficient Measurement

Latent variable coefficients													
	RelAd	Ptrust	Compat	Complex	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
R-squared coefficients						0.482			0.288			0.48	0.305
Adjusted R-squared						0.474			0.284			0.477	0.299
Q-squared coefficients						0.451			0.289			0.485	0.310
Composite reliability	0.820	0.730	0.827	0.843	0.710	0.759	0.841	0.803	0.817	0.790	0.625	0.695	0.810
Cronbach's alpha	0.804	0.596	0.806	0.830	0.690	0.705	0.828	0.785	0.799	0.758	0.496	0.612	0.760
Average variances extracted	0.537	0.548	0.591	0.575	0.552	0.514	0.642	0.576	0.528	0.589	0.458	0.439	0.523
Full collinearity VIFs	1.749	1.594	2.466	2.122	2.036	2.219	1.583	1.976	1.667	2.232	3.049	2.117	2.485

In general, formative indicators can have positive, negative, or even no correlations among each other (Haenlein & Kaplan, 2004; Petter et al., 2007). As such, there is no need to report indicator reliability, internal consistency reliability, and discriminant validity if a formative measurement scale is used. This is because outer loadings, composite reliability, and square root of average variance extracted (AVE) are meaningless for a latent variable made up of uncorrelated measures. Since facilitating condition and Perceived behavioral control is formative measure in this study their AVE below 0.5 which is meaningless.

### 4.2.3 Construct Validity

Construct validity indicates whether or not measures chosen are true constructs describing event (Straub, 1989). The techniques for assessing the construct validity of an instrument can be classified into two categories:

Convergent validity is the degree to which multiple attempts to measure the same concepts are in agreement AVE greater than 0.5. Discriminant validity is the degree to which the measures of different concepts are distinct.

#### Discriminant validity

Discriminant validity is shown when each measurement item correlates weakly with all other constructs except for the one to which it is theoretically associated. Discriminant validity is shown when two things happen:

- 1) When the correlation of the latent variable score with measurement item need to show an appropriate pattern of loading, one in which the measurement item load highly on their theoretically assigned factor and not highly on other factors.

Table 4.2.3.7: Factor structure matrix of loadings and cross-loadings

	RelAd	Ptrust	Compat	Complx	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
RelAdv1	0.623	0.093	0.281	0.111	0.193	0.295	0.071	0.029	0.072	0.06	0.01	-0.051	0.106
RelAdv2	0.841	0.262	0.398	0.064	0.11	0.311	0.206	0.023	0.218	0.058	0.062	-0.036	0.171
Readv3	0.642	0.083	0.475	0.099	0.206	0.443	0.001	-0.091	0.152	0.079	0.014	-0.032	0.173
Readv4	0.801	0.259	0.409	-0.002	0.078	0.317	0.207	-0.02	0.234	0.087	0.025	-0.048	0.198
PerTru1	0.17	0.677	0.227	-0.096	-0.051	0.033	0.103	0.152	-0.007	0.219	0.091	0.046	0.135
PerTru3	0.27	0.489	0.407	0.01	0.03	0.262	0.155	0.028	0.134	0.211	0.029	-0.028	0.317
Compt2	0.373	0.223	0.650	-0.044	0.004	0.399	0.063	-0.021	0.129	0.082	0.029	0.053	0.174
Compt1	0.35	0.252	0.636	-0.086	-0.038	0.284	0.124	0.007	0.104	0.172	0.017	0.001	0.189
Compt3	0.299	0.386	0.691	-0.21	-0.137	0.272	0.085	-0.073	0.007	0.254	-0.004	0.033	0.308
Compt4	0.329	0.278	0.726	-0.122	-0.08	0.309	0.096	-0.066	0.111	0.185	0.017	0.09	0.229
Compt5	0.465	0.246	0.790	-0.021	0.038	0.545	0.006	-0.066	0.224	0.084	0.038	0.053	0.234
Compx1	0.021	-0.097	-0.22	0.676	0.55	-0.034	0.028	0.112	0.1	-0.176	0.065	-0.057	-0.154
Compx2	-0.02	-0.061	-0.082	0.672	0.287	-0.015	0.011	0.046	0.049	-0.224	0.022	0.033	-0.11

Comp3	0.039	-0.131	-0.126	0.833	0.447	0.026	0.071	0.091	0.114	-0.207	0.14	0.1	-0.152
Complx5	0.118	-0.135	-0.079	0.837	0.617	0.126	0.154	0.092	0.162	-0.235	0.146	0.067	-0.189
PerRis1	0.108	-0.153	-0.166	0.633	0.786	0.045	-0.069	-0.027	0.027	-0.211	-0.049	-0.138	-0.22
PerRis2	0.199	-0.048	0.061	0.384	0.697	0.061	0.046	-0.08	0.046	-0.184	-0.004	-0.041	-0.102
Attit1	0.451	0.274	0.074	0.01	0.049	0.663	0.125	0.009	0.298	0.198	0.112	0.094	0.337
Attit2	0.309	0.091	0.298	0.078	0.054	0.696	0.356	0.024	0.27	0.217	0.105	0.001	0.224
Attit3	0.306	0.088	0.373	0.177	0.177	0.786	0.203	-0.038	0.328	0.201	0.014	0.023	0.282
ValPeO2	0.026	0.051	0.069	-0.063	-0.208	0.152	0.642	0.144	0.283	0.123	0.127	0.13	0.219
ValPeO3	0.198	0.202	0.173	0.08	0.06	0.277	0.839	0.191	0.408	0.332	0.297	0.122	0.31
ValPeO4	0.211	0.15	0.104	0.177	0.042	0.273	0.900	0.222	0.331	0.294	0.271	0.214	0.356
MedInf1	0.019	0.08	0.014	0.051	-0.007	0.011	0.122	0.789	0.202	0.123	0.446	0.251	0.046
MedInf2	0.03	0.133	-0.055	-0.008	-0.088	0.023	0.193	0.750	0.149	0.187	0.419	0.285	0.142
MedInf3	-0.048	0.071	-0.172	0.119	0.062	-0.046	0.26	0.738	0.234	0.141	0.445	0.276	0.072
SubNor2	0.135	0.132	0.199	0.012	-0.01	0.309	0.402	0.261	0.659	0.28	0.265	0.237	0.318
SubNor3	0.261	0.142	0.198	0.078	0.068	0.342	0.405	0.139	0.797	0.198	0.259	0.253	0.302
SubNor4	0.207	-0.017	0.069	0.166	0.137	0.241	0.287	0.194	0.751	-0.006	0.206	0.156	0.152
SubNor5	0.116	0.118	0.107	0.196	0.161	0.273	0.256	0.355	0.692	0.086	0.364	0.18	0.184
selfEf1	0.051	0.198	0.101	-0.218	-0.15	0.199	0.253	0.032	0.01	0.617	-0.049	0.082	0.432
selfEf2	0.033	0.303	0.14	-0.251	-0.11	0.157	0.203	0.096	0.073	0.841	0.111	0.124	0.48
selfEf3	0.017	0.214	0.201	-0.222	-0.166	0.245	0.255	0.171	0.032	0.669	0.096	0.08	0.383
SelfEf4	0.146	0.236	0.313	-0.153	-0.066	0.365	0.321	0.158	0.266	0.648	0.188	0.121	0.458
FaCond2	0.022	0.038	-0.007	-0.05	-0.089	-0.121	0.043	0.406	0.088	-0.06	0.591	0.395	-0.063
FaCond4	0.041	0.109	0.034	0.156	0.087	0.197	0.308	0.474	0.365	0.249	0.752	0.408	0.264
PerBC1	0.104	0.119	0.069	-0.045	-0.105	0.197	0.265	0.147	0.296	0.391	0.336	0.539	0.508
PerBC2	-0.051	0.022	0.023	0.068	-0.023	-0.055	0.067	0.303	0.116	-0.021	0.46	0.798	0.115
PerBC3	-0.12	0.017	0.075	0.04	-0.037	0.124	0.123	0.143	0.15	0.152	0.274	0.623	0.257
BehInt2	0.139	0.193	0.229	-0.021	0.039	0.249	0.296	0.106	0.234	0.463	0.207	0.311	0.767
BehInt3	0.162	0.273	0.335	-0.159	-0.095	0.321	0.247	-0.003	0.176	0.472	0.06	0.133	0.813
BehInt4	0.228	0.358	0.265	-0.250	-0.202	0.28	0.298	0.05	0.165	0.516	0.08	0.196	0.773
BehInt1	0.035	0.061	0.172	-0.188	-0.067	0.144	0.187	0.125	0.126	0.423	0.19	0.223	0.497

2) When the square root of AVE in each latent variable can be used to establish discriminant validity, if this value is larger than other correlation values among the latent variables (Fornell and Larcker (1981). The square root of AVE is put on the diagonal of the table as it depicted in table 8. For example, in this study, the latent variable Reladv's AVE is found to be 0.538 hence its square root becomes 0.733. This number is larger than the correlation values in the column of Reladv and also larger than those in the row of Reladv. The result indicates that discriminant validity is well established. However, since Facilitating condition is formative measure, it does not apply for discriminant validity.

Table 4.2.3.8: Correlation and Discriminant Validity

	RelAd	Ptrust	Compat	Complx	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
RelAd	0.733												
Ptrust	0.331	0.59											
Compat	0.569	0.498	0.701										
Complx	0.094	-0.046	-0.071	0.759									

Perisk	0.192	-0.031	0.002	0.68	0.743								
Attit	0.503	0.258	0.616	0.109	0.146	0.717							
Valpeo	0.23	0.217	0.165	0.132	0.055	0.348	0.801						
Medinf	0.036	0.14	-0.032	0.108	0.034	0.057	0.268	0.759					
SN	0.28	0.139	0.233	0.142	0.111	0.444	0.467	0.31	0.727				
SelfEff	0.137	0.396	0.29	-0.129	0.006	0.35	0.377	0.202	0.195	0.699			
Facond	0.066	0.141	0.061	0.133	0.05	0.149	0.335	0.681	0.415	0.204	0.676		
PBC	-0.03	0.057	0.079	0.079	-0.02	0.126	0.24	0.416	0.316	0.206	0.576	0.662	
BI	0.246	0.385	0.399	-0.084	0.007	0.427	0.421	0.153	0.332	0.689	0.256	0.35	0.723
Note: Square roots of Average variance extracted (AVEs) shown on diagonal													

### Convergent Validity

The ideal level of standardized loadings for reflective indicators is 0.7 but 0.6 considered to be an acceptable level (Barclay et al., 1995). For all the constructs with multiple reflective measures, all items have high loadings, with majority above 0.7 therefore demonstrating convergent validity. For formative type of measure weight factor and p-value should be considered for its reliability. All formative types are valid at less than 0.05

Table 4.2.3.9: Factor loading and Weight

Construct	Indicator	Loading	Weight	Type of Measurement	P-value
Relative Advantage	RelAdv1	0.623		Reflective	<0.001
	RelAdv2	0.841		Reflective	<0.001
	Readv3	0.642		Reflective	<0.001
	Readv4	0.801		Reflective	<0.001
Perceived Trust	PerTru1	0.677		Reflective	<0.001
	PerTru3	0.489		Reflective	<0.001
Compatibility	Compt2	0.65		Reflective	<0.001
	Compt1	0.636		Reflective	<0.001
	Compt3	0.691		Reflective	<0.001
	Compt4	0.726		Reflective	<0.001
	Compt5	0.79		Reflective	<0.001
Complexity	Comp1	0.676		Reflective	<0.001
	Comp2	0.672		Reflective	<0.001
	Comp3	0.833		Reflective	<0.001
	Comp5	0.837		Reflective	<0.001
Perceived risk	PerRis1	0.786		Reflective	<0.001

	PerRis2	0.697		Reflective	<0.001
Attitude	Attit1	0.663		Reflective	<0.001
	Attit2	0.696		Reflective	<0.001
	Attit3	0.786		Reflective	<0.001
Valued people opinion	ValPeO2	0.642		Reflective	<0.001
	ValPeO3	0.839		Reflective	<0.001
	ValPeO4	0.9		Reflective	<0.001
Media Influence	MedInf1	0.789		Reflective	<0.001
	MedInf2	0.75		Reflective	<0.001
	MedInf3	0.738		Reflective	<0.001
Subjective Norm	SubNor2		0.199	Formative	<0.001
	SubNor3		0.367	Formative	<0.001
	SubNor4		0.304	Formative	<0.001
	SubNor5		0.242	Formative	<0.001
Self Efficacy	selfEf1	0.617		Reflective	<0.001
	selfEf2	0.841		Reflective	<0.001
	selfEf3	0.669		Reflective	<0.001
	SelfEf4	0.648		Reflective	<0.001
Facilitating condition	FaCond2		0.318	Formative	<0.001
	FaCond4		0.518	Formative	<0.001
Perceived Behavioral control	PerBC1		0.197	Formative	<0.001
	PerBC2		0.474	Formative	<0.001
	PerBC3		0.286	Formative	<0.001
Behavioral intention	BehInt1	0.497		Reflective	<0.001
	BehInt2	0.767		Reflective	<0.001
	BehInt3	0.813		Reflective	<0.001
	BehInt4	0.773		Reflective	<0.001

Apparently, Sample adequacy affects the validity of output. In practice, a typical marketing research study would have a significance level of 5%, a statistical power of 80%, and  $R^2$  values of at least 0.25. Using such parameters, the minimum sample size required can be looked up from the guidelines suggested by Marcoulides & Saunders (2006); depending on the maximum number of arrows pointing at a latent variable minimum is 43 samples. Prior research suggests that a sample size of 100 to 200 is usually a good starting point in carrying out path modeling (Hoyle, 1995). Therefore, the sample of this study is 360 respondents that are more than adequate to analysis

#### 4.2.4 Collinearity Diagnosis

As a rule of thumb, we need to have a VIF of 5 or lower (i.e., Tolerance level of 0.2 or higher) to avoid the collinearity problem (Hair et al., 2011).

Similarly, the recommended threshold for VIFs test multicollinearity also 3.3 or less for latent variable. To check the possibility of multi-co-linearity test whenever factor loadings are exceeding 0.70 values the correlation between the predictors of a variable has to be verified. Existence of multi co-linearity falsely inflates the standard errors and certain model parameters may sometimes become unstable (Kock, 2011). To assess the degree of multicollinearity, variance inflation factors (VIFs) are evaluated for each of the predictor variables. As shown in table 10 all VIFs value were less than 3.3 ranging from 1.077 to 1.681 meeting the recommended threshold values which points to the nonexistence of multicollinearity.

Table 4.2.4.10: Block Variance Inflation Factor (VIF)

Block variance inflation factors													
	RelAd	Ptrust	Compat	Complx	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
Attit	1.532	1.355	1.763	1.153	1.187								
SN							1.062	1.062					
PBC										1.07	1.07		
BI						1.227			1.289			1.093	
Note: These VIFs are for the latent variables on each column (predictors), with reference to the latent variables on each row (criteria).													
Tolerance Accepted if >0.2													
	RelAd	Ptrust	Compat	Complx	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
Attit	0.65	0.74	0.57	0.87	0.84								
SN							0.94	0.94		0.93	0.93	0.91	
PBC													
BI						0.81			0.78				

As in multiple regression analysis (Miller & Wichern, 1977; Mueller, 1996), it is recommended that weights with P-values that are equal to or lower than 0.05 be considered valid items in a formative latent variable measurement item subset. VIF <2.5 is desirable for formative latent variable. Formative latent variable indicators whose weights do not satisfy this criterion may be considered for removal.

Note: except the indicator weight of SN1, SN6 & Facond3, all indicators weight meet the criteria of the reliability of indicator weight and VIF. Therefore, SN1, SN6 and Facond3 have removed from the final model.

Besides to VIF, Full collinearity VIFs was shown for all latent variables, separately from the VIFs calculated for predictor latent variables in individual latent variable blocks. These VIFs are calculated based on a full collinearity test (Kock & Lynn, 2012), which enables the identification of not only vertical but also lateral collinearity, and allows for a test of collinearity involving all latent variables in a model. A rule of thumb rooted in the use of this software for many SEM analyses in the past suggests that full collinearity VIFs of 3.3 or lower suggest the existence of no multicollinearity in the model and no common method bias (Hair et al., 2009). In this study, the Full collinearity VIFs of all latent variables were less than 3.3 as shown in table 10.

### 4.3 Result and Hypothesis Testing

#### 4.3.1 A Model fit and Quality indices

The model includes 43 items describing 13 latent constructs: Behavioral Intention, Attitude, Subjective Norm, Perceived Behavioral Control, Relative advantage, Perceived Trust, Compatibility, Complexity, Perceived risk, Valued people Opinion, Media Influence, Self Efficacy, Facilitating Condition and Behavioral Intention (see Figure 7). The structural equation modeling (SEM) WarpPLS 5.0 software was used to provide the necessary analysis to serve the objectives of this study. The measurement model test resulted in statistically accepted goodness of fit between the data and the proposed measurement model. Here, various goodness of fit statistics are shown in Table 11.

Table 4.3.1.11: Model Fit and Quality Indices

Model fit and quality indices		
Measure	Value	Pvalue
Average path coefficient (APC)	0.262	P<0.001
Average R-squared (ARS)	0.389	P<0.001
Average adjusted R-squared (AARS)	0.384	P<0.001
Average block VIF (AVIF)	1.239	acceptable if $\leq 5$ , ideally $\leq 3.3$
Average full co-linearity VIF (AFVIF)	2.100	, acceptable if $\leq 5$ , ideally $\leq 3.3$
Tenenhaus GoF (GoF)	0.447	small $\geq 0.1$ , medium $\geq 0.25$ , large $\geq 0.38$
Sympson's paradox ratio (SPR)	1.000	acceptable if $\geq 0.7$ , ideally = 1
R-squared contribution ratio (RSCR)	1.000	acceptable if $\geq 0.9$ , ideally = 1
Statistical suppression ratio (SSR)	1.000	acceptable if $\geq 0.9$
Nonlinear bi-variate causality direction ratio (NLBCDR)	1.000	acceptable if $\geq 0.9$

When assessing the model fit with the data, several criteria was undertaken. The AVIF and AFVIF indices bring in new dimensions that add to a comprehensive assessment of a model's overall predictive and explanatory quality. In this study, both the AVIF and AFVIF is 1.233 and 2.123, respectively achieving the recommended level equal to or lower than 3.3, particularly in models where most of the variables are measured through two or more indicators.

Similarly to the ARS, the GoF index, referred to as "Tenenhaus GoF", is a measure of a model's explanatory power. Tenenhaus et al. (2005) defined the GoF as the square root of the product between what they refer to as the average communality index and the ARS. The GOF of this study is 0.461 which range in to large explanatory power.

The SPR index of this study is 1.000 above 0.7 and confirms a model is free from Simpson's paradox instances (Pearl, 2009; Wagner, 1982) meaning that there are no instances of Simpson's paradox in a model. A Simpson's paradox instance is a possible indication of a causality problem, suggesting that a hypothesized path is either implausible or reversed. The weight-loading signs (WLS) of all indicators were positive in this study meaning that there is no a negative Weight loading making a negative contribution to the R-squared of its latent variable.

The RSCR index of this study is 1.000 which shows model is free from negative R-squared contributions, which occur together with Simpson's paradox instances (Pearl, 2009; Wagner, 1982).

SSR. An instance of statistical suppression occurs when a path coefficient is greater, in absolute terms, than the corresponding correlation associated with a pair of linked variables. An SSR value of the study is 1.000 meaning that at least 100 percent of the paths in a model are free from statistical suppression.

Finally, the values of NLBCDR of the research is 1.000 meaning that in at least 100 percent of path-related instances in a model the support for the reversed hypothesized direction of causality is weak or less. Here "less" may mean that the support for reversed hypothesized direction of causality is less than weak (neutral), or that the hypothesized direction of causality is supported.

#### **4.3.2 Explanation of Target Endogenous Variable Variance**

Adjusted R-squared coefficients (Theil, 1958; Wooldridge, 1991) are equivalent to R-squared coefficients, with the key difference that they correct for spurious increases in R-squared

coefficients due to predictors that add no explanatory value in each latent variable block. In marketing research,  $R^2$  of 0.75 is substantial, 0.50 is moderate, and 0.25 is weak

Therefore, the coefficient of determination,  $R^2$ , is 0.305 for the behavioral intention endogenous latent variable. This means that the three latent variables (Attit, SN, and PBC) moderately explain 30.5% of the variance in behavioral intention. It indicates the contribution of attitude, social influence and perceived behavioral control in explaining variance of intention to adopt interest free banking is 30.5%.

Looking into the  $R^2$  of Attit, SN and PBC that serves as both independent and dependent variable in this study have higher  $R^2$  than BI except SN. The Attitude coefficient of determination is 0.482 that means all latent variables Ready, ptrust, Compat, Complx and Prisk together explain 48.2% of the variance of Attitude.

Similarly, Valpeo and Medinf together explain 28.9% of the variance of subjective Norm. PBC has the highest  $R^2$  0.48 which reflects PBC is highly explained by the variation of Self efficacy and Facilitating condition.

### **4.3.3 Hypothesis Testing**

In nonlinear relationships, the path coefficient is given by the first derivative of the nonlinear function that describes the relationship. In the calculation of P values, a one-tailed test is generally recommended if the coefficient is assumed to have a sign (positive or negative), which should be reflected in the hypothesis that refers to the corresponding association (Kock, 2014d). Hence this software reports one-tailed P values for path coefficients.

Therefore, this research report provides P values associated with path coefficients, which are more meaningful than T-values for hypothesis testing purposes. This is due to the fact that P values reflect not only the strength of the relationship (which is already provided by the path coefficient itself) but also the power of the test, which increases with sample size. The larger the sample size, the lower a path coefficient has to be to yield a statistically significant P value (Kock, 2015).

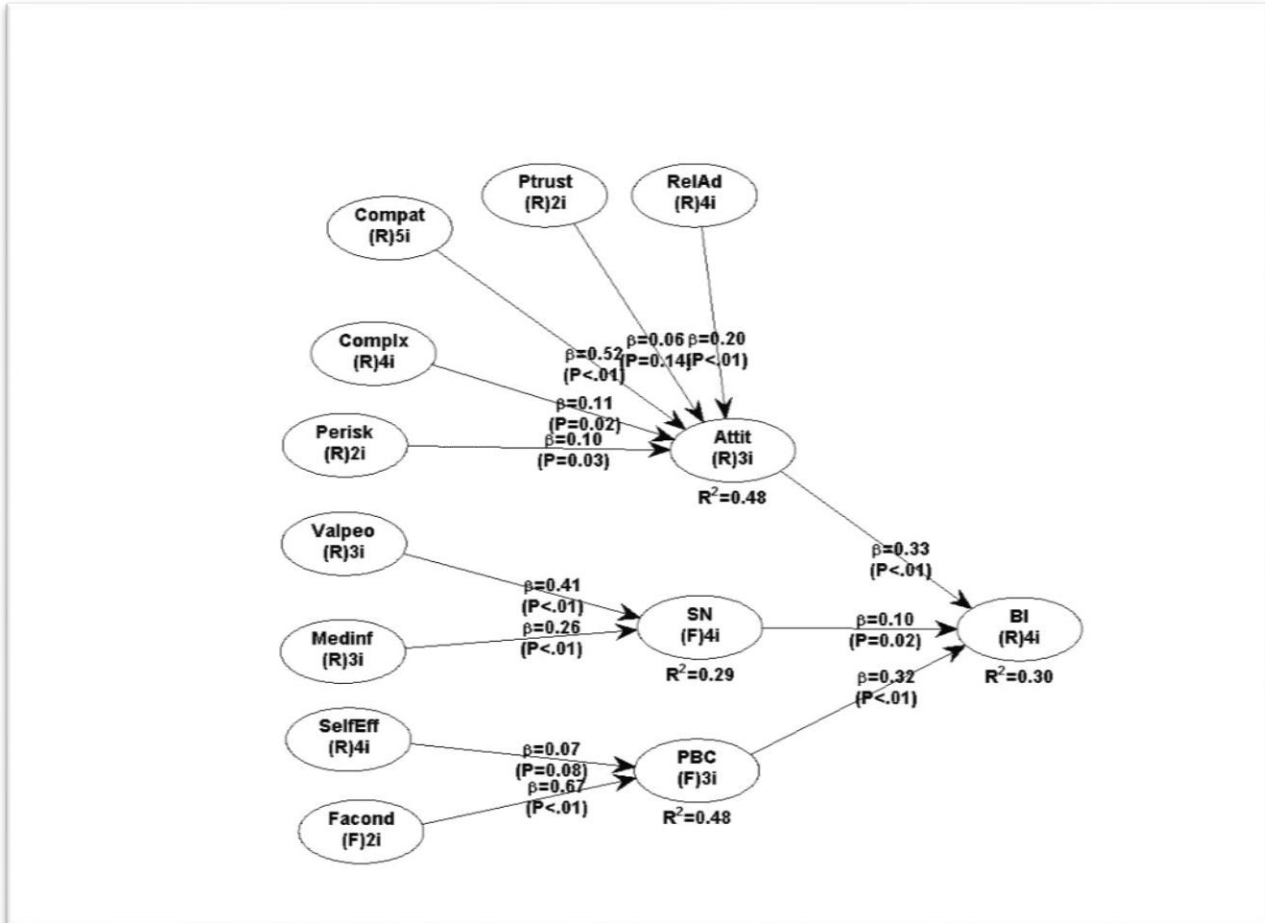


Figure 4.3.3.7: IFB Adoption model path Coefficient and p values

Figure above shows the analysis of the path model that represents the relationships among the 13 constructs in this study. There was a good model fit and seven out of twelve hypotheses were significant.

Table 4.3.3.12: Hypothesis testing

Hypothesis	Effects	Path Coefficient	P-value	Remarks
H1	Readv → Attit	0.202	<0.001***	Supported
H2	Ptrust→ Attit	0.057	0.136	Not Supported
H3	Compat→ Attit	0.518	<0.001***	Supported
H4	Complx→ Attit	0.107	0.020***	Not Supported
H5	Perisk→ Attit	0.101	0.026**	Not Supported
H6	Valpeo→ SN	0.410	<0.001***	Supported
H7	Medinf→ SN	0.262	<0.001***	Supported
H8	Seleff→ PBC	0.072	0.083	Not Supported
H9	Facond→ PBC	0.671	<0.001***	Supported
H10	Attit→ BI	0.330	<0.001***	Supported
H11	SN→ BI	0.103	0.024**	Supported
H12	PBC→ BI	0.316	<0.001***	Supported

**Note 1:** \*\*\*Significance at  $p < 0.001$ , \*\* Significance at  $p < 0.05$ ,

**Note 2:** **Readv:** Relative advantage, **ptrust:** Perceived trust, **Compat:** Compatibility, **Complx:** Complexity, **Perisk:** Perceived risk, **Valpeo:** Valued people Openion, **Medinf:** Media Influence; **Self Eff:** Self Efficacy, Facon: Facilitating condition, BPC: Perceived behavioral control, **BI:** Behavioral intention

- The inner model suggests that Perceived behavioral control has the strongest effect on behavioral intention (0.316) followed by Attitude (0.330) and Subjective norm (0.103).
- The results shows that the behavioral intention to use interest free banking is predicted by Attitude ( $\beta = 0.330$ ,  $p < 0.001$ ), Subjective Norms ( $\beta = 0.103$ ,  $p < 0.05$ ) and Perceived behavioral Control ( $\beta = 0.316$ ,  $p < 0.001$ ). Attitude is predicted by Relative advantage ( $\beta = 0.202$ ,  $p < 0.001$ ), Perceived trust ( $\beta = 0.06$ ,  $p = 0.136$ ), Compatibility ( $\beta = 0.518$ ,  $p < 0.001$ ), Complexity ( $\beta = 0.107$ ,  $p = 0.02$ ), Perceived Risk ( $\beta = 0.101$ ,  $p = 0.026$ ). Subjective norm is predicted by Valued People Opinion ( $\beta = 0.410$ ,  $p < 0.001$ ) and Media influence ( $\beta = 0.262$ ,  $p < 0.001$ ). Perceived behavioral control is predicted by Self-efficacy ( $\beta = 0.072$ ,  $p = 0.083$ ) and facilitating condition ( $\beta = 0.671$ ,  $p < 0.001$ ).

### Explaining Attitude toward Interest free banking Adoption

The customers' Attitude to use Interest free banking is jointly predicted by Relative advantage ( $\beta = 0.202$ ), Perceived trust ( $\beta = 0.057$ ), Compatibility ( $\beta = 0.518$ ), complexity ( $\beta = 0.107$ ), Perceived risk ( $\beta = 0.101$ ).

These variables totally explain 48% of the variance on attitude towards IFB adoption ( $R^2 = 0.48$  Coefficient of determination). This is an indication of the strong explanatory power on customers Attitude to use IFB.

**Hypothesis 1**, relative advantage has positive influence on attitude towards the intention to adopt interest free banking services in Ethiopia significant at ( $\beta: 0.20, p < 0.001$ ). Hence, hypothesis 1 is supported. This result is in line with those of Echchabi and Aziz (2012b, Taylor and Todd, 1995b, Tan and Teo, 2000, Teo and Pok, 2003, Shih and Fang, 2004, Nor, 2005, as well as Püschel, 2010. The relative advantage of interest free banking is perceived and measured via the economic benefit of profit and loss sharing, banking needs and social value offered by these services. Thus, these dimensions have to be emphasized by the Ethiopian banking institutions offering interest free banking service.

**Hypothesis 2:** The path between perceived trust and Attitude was found to be insignificant ( $\beta = 0.07, p = 0.136$ ), there by not supporting **Hypothesis 2**. This finding supports Suh and Han (2002) contention who reported that there is a significant relation between perceived Trust and attitude towards IFB adoption.

**Hypothesis 3:** Compatibility has a positive influence on the attitude towards interest free banking adoption in Ethiopia significant at ( $\beta: 0.518, p < 0.001$ ). Hence, Hypothesis 3 is supported. This is in line with the findings of Echchabi and Aziz (2012b). This is in accordance with the findings of Tan and Teo (2000), Fisher and Chu (2009), Nor (2005), Puschelet al. (2010) and To et al. (2008). Nevertheless, it contradicts with the findings of Teo and Pok (2003), Shih and Fang (2004), Al-Majali and Nik Mat (2010) and Beiginaet al. (2011). Thus, much emphasis on the marketing and management strategies should be on the shariah complaint, religious value, the specific financial needs and secured investment in line with the philosophy of doing banking businesses. Compatibility has the highest weight in explaining the variation in attitude towards the intention to adopt.

**Hypothesis 4:** The path between complexity and attitude find to be significant ( $\beta = 0.107, p = 0.020$ ) significant at p 5%. However, it was hypothesized as it negatively affect towards the adoption of interest free banking not supporting **Hypothesis 4**. The complexity of new product affects how customers perceive it and develops a certain attitude. The result shows as perceived complexity has not influencing the attitude of customers towards using Interest free

banking. This is similar to the findings Fisher and Chu, 2009, Shih and Fang, 2004, Beiginia, 2011), while it contradicts with the findings of Tan and Teo, 2000, as well as Taylor and Todd, 1995b.

**Hypothesis 5:** Perceived risk does not have a significant influence on attitude towards intention to adopt interest free banking service in Ethiopia. Hence, Hypothesis 5 is not supported. This contradicts the findings of Echchabi and Aziz (2012b).

#### **Explaining Subjective Norm toward IFB Adoption**

The Subjective norm influence towards the use of interest free banking is jointly predicted by valued people opinion ( $\beta = 0.410$ ) and Media Influence ( $\beta = 0.262$ ). These variables totally explain 29% of the variance on intention to use ( $R^2 = 0.288$  Coefficient of determination). This is an indication of the moderate explanatory power of the model for subjective norm.

**Hypothesis 6:** Path coefficient from Valued people opinion and Subjective norm is found to be significant ( $\beta = 0.410$ ) which support Hypothesis 6 which has a positive impact on Subjective Norm of customers' towards adoption of interest-free banking at ( $p < 0.001$ ). The valued people opinion influence towards interest free banking use was measured via the parents and close friends thought to use it and comply with subjective norm. Hence, parents and friends advice influence individuals to interest free banking that has to get attention.

**Hypothesis 7:** Path coefficient from media influence and Subjective norm is found to be significant ( $\beta = 0.262$ ) which support Hypothesis 7 which has a positive impact on Subjective Norm of customers' towards adoption of interest-free banking at ( $p < 0.001$ ). The media influence towards interest free banking adoption was measured via good feeling communicated through the media, advertisement or electronic and different articles in the media. All have positive influence on the adoption of interest free banking.

#### **Explaining Perceived Behavioral Control toward IFB Adoption**

The Perceived behavioral control influence towards the use of interest free banking is jointly predicted by Self efficacy ( $\beta = 0.072$ ), Facilitating condition ( $\beta = 0.671$ ). These variables totally explain 48% of the variance on intention to use ( $R^2 = 0.48$  Coefficient of determination). This is an indication of the strong explanatory power of the model for perceived behavioral control.

**Hypothesis 8:** self-efficacy has insignificant positive impact on perceived behavioral control ( $\beta=0.072$ ,  $p= 0.083$ .) This means that hypothesis 8 is not supported. This is contradict with the findings of Sharma and Bock (2005), Taylor and Todd (1995a), Teo and Pok (2003), Ndubisi (2004), Nor (2005), Puschel *et al.* (2010), Al-Majali and Nik Mat (2010), Beigina *et al.* (2011), and To *et al.* (2008). But, it is inline the findings of Tan and Teo (2000), Lin (2005). Self-efficacy was measured in terms of financial resources, basic knowledge of interest free banking principles and practice, as well as the overall ability of the respondents to adhere to interest free banking services. This implies that the individuals decision to adopt IFB services not independent of other constraints, related to the laws, policies governing IFB facilitating its effective usage either from the government or Shariah Supervisory board.

**Hypothesis 9:** Furthermore, facilitating conditions have a significant influence on the perceived behavioral control towards the intention to adopt IFB service, which is supporting hypothesis 9. This result is compatible with those of Sharma and Bock (2005), Taylor and Todd (1995b), Nor (2005), and To *et al.* (2008), Nevertheless, these results contradict with those of Tan and Teo (2000), Shih and Fang (2004), Williams (2009) and Beigina *et al.* (2011).

### **Explaining behavioral Intention toward Interest free Banking Adoption**

The behavioral intention to use interest free banking is jointly predicted by Attitude ( $\beta= 0.330$ ), Perceived behavioral control ( $\beta= 0.316$ ) and Subjective Norms ( $\beta= 0.103$ ). These variables totally explain 30% of the variance on intention to use ( $R^2 = 0.305$  Coefficient of determination). This is an indication of the moderate explanatory power of the model for intentions.

**Hypothesis 10:** Attitude ( $\beta= 0.330$ ) has significant effect on intention and there by supporting Hypothesis 10, In fact, Attitude has the strongest effect with a path coefficient of 0.330 emphasizing the important role of an individual's attitude in driving his/her intentions towards adoption of interest free banking.

This would appear to support Hassan (2015) and Aziza. 2016, contention that attitude has strong effect on intention.

**Hypothesis 11:** The path between Subjective norms and behavioral intention found to be significant ( $\beta = 0.103$ ,  $p = 0.024$ ) significant at 5% there by supporting **Hypothesis 11**. In the case of formative measures, inter personal and external influence have considered, valued people opinion, family, friend and media. While parents, friends and media influences were significant, valued people opinion influence did not make a difference. The parents influence had a considerable weight of 0.367 as compared to 0.119 for valued people influence. This outcome is similar to that of Taylor and Todd (1995b) as well as Abduh (2012). It is worth noting that the referent groups that are mostly considered by the respondents are parents, peers, siblings and colleagues. This implies that the interest free banking should focus on these groups in their marketing and promotion strategy. Here, positive word of mouth is more influential than the media promotion.

**Hypothesis 12:** The path between Perceived behavioral control and behavioral intention was found to be significant ( $\beta = 0.316$ ) and thereby support **Hypothesis 12**. This finding is consistent with findings of Aziza (2016). This is contradicting with the findings of Al-Majali and Nik Mat (2010), Puschelet *al.* (2010), and Teo and Pok (2003).

- In addition to the hypothesized models, influence of some demographic factor such as awareness of the customer, religion and type of window on behavioral intention towards adoption of interest free banking was checked and all have no significant influence it.
- Addition of demographic factors into the model add some marginal explanation of behavioral intention from the  $R^2 = 0.305$  to  $R^2 = 0.320$ .

#### 4.3.4 Model Prediction and Explanation

Here  $f^2$  effect size which shows how much an exogenous latent variable contributes to an endogenous latent variable's  $R^2$  value (Chin, Marcolin, and Newsted (1996). In addition to relationship between variables significance, the effect seize of latent variables contribution is very important.

The effect sizes provided are similar to Cohen's (1988) f-squared coefficients. Effect sizes can be indicated by path coefficients as small, medium, or large. The values usually recommended are 0.02, 0.15, and 0.35; respectively (Cohen, 1988). Values below 0.02 suggest effects that are too weak to be considered relevant from a practical point of view, even when the

corresponding P values are statistically significant. F-square can be categorized as: i) 0.02 – weak effect, ii) 0.15 – medium effect and iii): 0.35 strong effects.

The effect size of Facond, compat has strong effect, Attit, PBC, Valpeo, Medinf, Reladv has medium effect path whereas Ptrust, Complx, Perisk, SN and selfEf were weak.

Table 4.3.4.13: Effect Size for Path Coefficient

Effect sizes for path coefficients													
	RelAd	Ptrust	Compat	Complx	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
Attit	0.103	0.015	0.321	0.02	0.023								
SN							0.194	0.094					
PBC										0.018	0.462		
BI						0.142			0.034			0.128	

On the other hand, the predictive relevance of  $Q^2$  values on the inner model is important. In this study, the  $Q^2$  of attitude and PBC were 0.481 and 0.485 which has large predictive relevance on endogenous latent variable (behavioral Intention) while Subjective norm and Behavioral intention has medium predictive relevance. Note: 0.02, 0.15 and 0.35 indicate an exogenous construct has a small, medium and large predictive relevance for an endogenous latent variable respectively.

#### 4.3.5 Latent Variable Indirect Effect and Total Effect on Behavioral Intention

As shown in the table 14 compatibility and facilitating condition has strong indirect effect on behavioral intention to adopt interest free banking. These latent variables also have larger path coefficient relative to other variables.

Table 4.3.5.14: Latent variable direct and indirect effect of Endogenous Variable

Indirect and total effects													
1. Indirect effects for paths with 2 segments													
	RelAd	Ptrust	Compat	Complx	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
BI	0.066	0.019	0.171	0.035	0.033		0.042	0.027		0.023	0.212		
2. Total effects													
	RelAd	Ptrust	Compat	Complx	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
Attit	0.202	0.057	0.518	0.107	0.101								
SN							0.41	0.262					
PBC										0.072	0.671		
BI	0.066	0.019	0.171	0.035	0.033	0.33	0.042	0.027	0.103	0.023	0.212	0.316	

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 Chapter Overview

This chapter presents the final part of the study based on the result obtained in the study; a discussion of theoretical and practical implication will be presented on this chapter. Furthermore, some recommendations were suggested for banks and any concerned organs Contribution of this study, its limitations and future research also will be presented in this chapter. Further, this study intends to examine the applicability and adaptability of the DTPB on IFB adoption in the Ethiopian context. Indeed, to my knowledge, these types of analysis are missing from the literature.

#### 5.2 Summary of Findings

The purpose of this research is to identify factors influencing interest free banking adoption by using the Decomposed theory of planned behavior with an extension of perceived trust and perceived risk. For this purpose the researcher able to collect 360 questionnaires from the total 399 sample size and the collected inserted into SPSS. To achieve the objective of the research the PLS Structural Equation Model was applying factor analysis called exploratory factor analysis by reducing not producing useful factors. As result, 54 measurement items were reduced to 43 items using both principal component analysis and WarpPLS statistical tool. Principal component analysis has dual function in factor analysis (1) identify component and categorize (2) partial out weak loadings while warpPLS 5 help for identifying weak loading or weight and function a complex multivariate simultaneously. Before going into hypothesis testing, internal consistency measure such as Cronbach alpha reliability, composite reliability, Discriminant validity, convergence validity, collinearly diagnostic, model fit and indices has adequately deal with. Apparently, all values for composite reliability and AVE calculated in this study meet the recommended threshold values. In conclusion, the statistical analyses obtained here are suggesting that the model exhibits adequate convergent validity and reliability.

Finally, the research findings are presented as follows:

- The major demographic results were 75.5% of the respondents were Male, 45.8% of respondent categorized between 34-40, 96.4% of the respondents were Muslim; 43.1%

of the respondents were self employed; 71.1% of the respondents were know the existence of IFB globally or locally; 1.9% of the respondents were IFB window users;

- Relative advantage positively influences customers attitude towards IFB adoption
- Compatibility positively influences customers attitude towards IFB adoption
- Valued people opinion positively influences subjective norm towards IFB adoption
- Media role influence subjective norm towards IFB adoption. This indicates the relative importance of the social influence on non-users of IFB banking. This finding has implication for marketers; it indicates that advertisements in media or press play important roles in forming intention toward IFB adoption
- Facilitating conditions positively influences perceived behavioral control towards IFB adoption
- Customer Attitude positively influences behavioral intention to adopt IFB product and service
- Subjective Norm positively influences behavioral intention to adopt IFB product and service.
- Perceived Behavioral Control positively influences behavioral intention to adopt IFB product and service
- While perceived trust, complexity, perceived risk and self efficacy does not have any influence and perceived trust has a negative influence
- Looking into the influence of some demographic factor such as awareness, religion, and type of window on behavioral intention towards adoption of interest free banking, all have no significant influence.

### **5.3 Conclusion**

The main objective of this study was to explore factors influencing customers' behavioral intention to adopt interest free banking in Ethiopia. Based on the first objective attitude, subjective norm and perceived behavioral control influences customers' behavioral intention to adopt interest free banking. Based on the second objective, Perceived behavioral control highly

influences customer's behavioral intention to adopt interest free banking followed by customers' attitude. Hence, one conclude that customers influenced highly by the knowledge they have about interest free banking and care about the government and sharia role in expanding IFB.

Based on the third objective factors influencing customers' attitude towards the adoption of interest free banking, compatibility and relative advantage have an influences customer attitude towards the adoption of interest free banking. Here, compatibility has the highest loading showing that customers care about the compatibility of interest free banking product and service.

Based on the fourth objective factors influencing subjective norms towards the adoption of interest free banking, media influence and valued people opinion have an influences customer subjective norm towards the adoption of interest free banking. This indicates the relative importance of media and social influence on non users of IFB. In this case, valued people opinion has higher influence than media influence on customers' behavioral intention towards adoption of interest free banking.

Based on the fifth objective facilitating condition has strong effect on perceived behavioral control towards the adoption of interest free banking. This indicates that customers' perceived behavior control to adopt interest free banking is highly explained by the facilitating role of sharia, National Bank of Ethiopia and government support.

#### **5.4 Contribution**

The findings of the this study have significant contributions that can be categorized under contribution to the body of knowledge, contribution to the practitioners and stakeholders, as well as the contribution to the policy makers and regulators. This research serves to offer valuable contributions to existing literature. First, this study has contributed to theoretically better understand the dynamics of interest free banking adoption by consumers of Ethiopian context. Second, the current study is based on DTPB framework, whereby its boundary has been extended with two factors: Perceived trust and Perceived risk. However, both have no significant effect on adoption. Third, the current findings demonstrate that both customer attitude and PBC are primarily important in IFB adoption process. By decomposing the three antecedents

of beliefs factors influencing behavioral intention to adopt interest free banking, compatibility and Facilitating condition have higher effect on adoption, valued people opinion, media and relative advantage has moderate effect that help manager to focus on.

### **5.5 Limitation and Future Area of the Study**

This study was conducted to find the factors influencing intentions to adopt interest free banking services. As such, there is room for further investigation into the adoption of IFB product and services.

This study has focused on users one bank only though it covered all regions of the country. Therefore, future studies should be carried out on sample of all banks to investigate their adoption intentions of such service.

Majority of the respondents 71.1% reported that they have awareness about IFB product and service to some extent. Since majority of them has limited awareness about IFB, they would not give genuine response toward the purpose. Therefore, future study should focus on interview where the researcher can uncover the intention of the customer in addition to the quantitative measurement.

The analysis of inner model shows that attitude, Subjective norm and perceived behavioral control together can only explain 30.5% of the variance in Behavioral intention. It is an important finding because it suggests that there are other factors that bank managers should consider when exploring adoption of interest free banking in future research.

### **5.6 Recommendation of the Study**

The purpose of this study is to demonstrate how IFB managers can improve their performance by understanding the relationships among factors influencing attitude, Subjective norm, and Perceived behavioral control towards behavioral intention to adopt IFB. In this research, customers are found to care about the relative advantage, compatibility, valued people opinion, media, facilitating condition towards the adoption of interest free banking. They are good indicators for the adoption of interest free banking. Interest free banking managers should not overlook these basic elements of day-to-day operation. Furthermore, IFB managers and policy makers need to apply better strategies and create an acceptable image of IFB product and service to better gain customer attitude as it vary from one customer to another which in turn increase

their intention to use the product. Also, managers should consider the perceived behavioral control by motivating customer towards IFB product and services with assistance of the Sharia advisory board to gain customer confidence by giving assurance to the customer that IFB product and service is purely Sharia compliance. This further requires giving clear guidance and some awareness program to bank customer so that they make their decision better towards IFB product and service. In addition the government support is vital in IFB adoption as the customers perceived behavioral control is largely explained by facilitating condition. As far as subjective norm concerns, IFB should design a program for customers where IFB representatives may interact with the customers so that they may gain customer intentions towards product and service of IFB and should promote positive word of mouth.

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## Appendix

### Appendix-1: Questionnaire

**ADDIS ABABA UNIVERSITY SCHOOL OF COMMERCE  
DEPARTMENT OF MARKETING MANAGEMENT  
MA PROGRAM**

#### Dear Respondents:

This questionnaire is developed to conduct research on Factors influencing behavioral intention to adopt interest free banking in Ethiopia. Hence, I hereby kindly request your participation in completing the questionnaire. I assure you that all information you shall provide will be kept strictly confidential. Finally, I thank you very much in advance for your cooperation and time to fill the questionnaire. For any information and unclear situation please contact me by my Email address: [guluma44@gmail.com](mailto:guluma44@gmail.com); Mobile Phone: 0913047107

#### Important aspects of the questionnaire

- No need to write your name
- For all questions, mark or circle the alternative numbers of your choice

#### Part One- Demographic Information

Please tick (✓) mark under the choices

1. **Gender:** Male  Female
2. **Age:** Below 20  [20 – 30]  [31 – 40]  [41 – 50]  Above 50
3. **Religion:** Muslim  Christian  Wakeffata  Others
4. **Highest level of education:**  
Less than Grade 10  Certificate/Diploma  Bachelors  Masters  PhD
5. **Marital status:** Married  Single
6. **Type of employment:**  
Public sector  Private sector  Self-employed  Student  Others
7. **What is your awareness level about existence of IFB globally and or locally?**  
Definitely I know  to some extent I know  I don't know
8. **Which type of banking window do you patronize?**  
Interest free banking window  Conventional bank  Both
9. **For how long have you been the customer of Oromia International Bank?**  
Less than 1 year  [1 – 3] years

[4 – 6] years

Above 6 years

**Part Two- Factors that Influences Customers Intention to adopt Interest Free Banking**

After reading each statement, please rate each of the following statements by putting (√) Mark or circle on the appropriate number with respect to your level of agreement/disagreement against each question. (Where;

1=“Strongly Disagree (SD)” 2=“Disagree (D)” 3=“Neutral (N)” 4=“Agree (A)” 5=“Strongly Agree (SA)”

S/N	Statements	Alternatives				
		Strongly Disagree (1)	Disagree (2)	Neutral	Agree (4)	Strongly Agree (5)
<b>I</b>	<b>Attitude</b>					
	<b>Relative Advantage</b>					
1	Financing on the basis of profit –loss-sharing between the lender and the borrower will be advantageous to both.	1	2	3	4	5
2	Interest free banking services are cheaper as compared to the conventional banking.	1	2	3	4	5
3	Investments are more secure in interest free banking than conventional one.	1	2	3	4	5
4	In general, interest free banking services are better than the conventional ones.	1	2	3	4	5
	<b>Perceived Trust</b>					
1	I believe that Interest free banking have a very good understanding of borrower’s credibility.	1	2	3	4	5
2	I believe that Interest free banking keeps its promises	1	2	3	4	5
3	I believe that Interest free banking keeps customers’ best interest in mind.	1	2	3	4	5
4	Interest free banking is trustworthy.	1	2	3	4	5
	<b>Compatibility</b>					
1	Interest free banking is compatible with Islamic religion.	1	2	3	4	5
2	Interest free banking service is Shariah compliant.	1	2	3	4	5
3	Interest free banking is compatible with my social values.	1	2	3	4	5
4	Interest free banking is in line with an Islamic philosophy of doing banking business.	1	2	3	4	5
5	Interest free banking responds to my banking needs.	1	2	3	4	5
	<b>Complexity</b>					
1	Interest free banking operations require a lot of mental effort to understand.	1	2	3	4	5
2	Interest free banking transactions are complicated.	1	2	3	4	5
3	Interest free banking principles and procedures are difficult to understand.	1	2	3	4	5

4	Opening an interest free bank account is difficult.	1	2	3	4	5
	<b>Perceived Risk</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
1	I think interest free banking operations are risky.	1	2	3	4	5
2	I am not confident in the interest free banking practice.	1	2	3	4	5
3	I think using interest free banking based on profits and loss sharing is risky.	1	2	3	4	5
4	I think using interest free banking may expose me to financial loss.	1	2	3	4	5
	<b>Attitude</b>					
1	Using Interest free banking services is advantageous.	1	2	3	4	5
2	Adhering to interest free banking services is an excellent idea.	1	2	3	4	5
3	Using Interest free banking service is a wise idea.	1	2	3	4	5
4	Interest free banking is trustworthy to adopt it.	1	2	3	4	5
<b>II</b>	<b>Subjective Norm</b>					
	<b>Valued People Opinion</b>					
1	People important to me think I should engage in interest free banking services.	1	2	3	4	5
2	My parents think I should engage in interest free banking services.	1	2	3	4	5
3	My close friends think I should engage in interest free banking services.	1	2	3	4	5
4	In general, I would do what others (either my parents or my close friends or people important to me) think I should do.	1	2	3	4	5
	<b>Media Influence</b>					
1	The media gave me a good feeling about using interest free banking.	1	2	3	4	5
2	I heard and understand Advertisement on electronic or print media.	1	2	3	4	5
3	Different articles in the media influenced me to use interest free banking.	1	2	3	4	5
	<b>Subjective Norm</b>					
1	People important to me would think that I should use interest free banking services.	1	2	3	4	5
2	My parents would think that I should use interest free banking services.	1	2	3	4	5
3	My friends that are important to me would think I should use interest free banking services.	1	2	3	4	5
4	Information I get from Religious institutions about Interest free banking products and service influenced me on using it.	1	2	3	4	5

5	The information I get through different promotion influenced me to adopt IFB.	1	2	3	4	5
6	It is expected of me to adopt interest free banking services.	1	2	3	4	5
<b>III</b>	<b>Perceived Behavioral Control</b>	<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly Agree</b>
	<b>Self-Efficacy</b>					
1	I have enough capacity to use interest free banking services.	1	2	3	4	5
2	I have enough knowledge to use interest free banking services.	1	2	3	4	5
3	I feel comfortable using interest free banking services.	1	2	3	4	5
4	I would be able to use Interest free Banking services, even if I have never used it before.	1	2	3	4	5
	<b>Facilitating Conditions</b>					
1	The Sharia principle facilitates effective usage of Interest free banking.	1	2	3	4	5
2	The National Bank of Ethiopia's directive facilitates effective usage of Interest free banking.	1	2	3	4	5
3	The government supports interest free banking expansion.	1	2	3	4	5
4	Interest free banking service has all facilities like Conventional banking services.	1	2	3	4	5
	<b>Perceived Behavioral Control</b>					
1	The knowledge I have about interest free banking services influenced me to adopting it.	1	2	3	4	5
2	Government supports on expanding interest free banking services influenced me on adopting of it.	1	2	3	4	5
3	I think that I would be able to adhere to interest free banking services if I want to.	1	2	3	4	5
4	I think that using interest free banking services would be entirely within my control.	1	2	3	4	5
<b>V</b>	<b>Behavioral Intention</b>					
1	I will seriously consider the use of interest free banking services.	1	2	3	4	5
2	I intend to adopt Interest free banking services in the near future.	1	2	3	4	5
3	I will strongly recommend others to use Interest free banking services.	1	2	3	4	5
4	In general, my intention to adopt Interest free banking is very high.	1	2	3	4	5

*Thank you Very Much!!!*

መጠይቅ

አዲስ አበባ ዩኒቨርሲቲ ንግድ ስራ ት/ቤት

በማርኬቲንግ ማኔጅመንት ድጋግ ስልጠና

ማስተርስ ፕሮግራም

ይህ መጠይቅ የተዘጋጀው ከወለድ ነፃ የባንክ አገልግሎትን ለመጠቀም ተፅዕኖ ሊያሳድሩ የሚችሉ ሁኔታዎች ለማጥናት ነው። በመሆኑም ይህንን መጠይቅ በመሙላት እንዲሳተፉ እና እንዲተባበሩኝ በአክብሮት እጠይቃለሁ። የሚሰጡት መረጃ በሚስጥር እንደሚያዝ ለማረጋገጥ እወዳለሁ። በመጨረሻም ጊዜዎትን ሰውተዉ ይህን መጠይቅ ለመሙላት ስለተባበሩኝ በቅድሚያ አመሰግናለሁ። ግልጽ ያልሆነልዎት ነገር ካለ እባክዎ ከዚህ ቀጥሎ ባለዉ አድራሻ ሊያሳዉቁኝ፤ ኢ-ሜይል:

guluma44@gmail.com ሞባይል: 0913-04 71 07

ማስታወሻ

- ስም መፃፍ አያስፈልግም።
- ለሁሉም መጠይቅ የተሰጡትን አማራጮች አክብሮት/ይህን ጭረት ምልክት (✓) ይጠቀሙ።
- አስፈላጊ ሆኖ ሲገኝ ከአንድ በላይ መልስ መምረጥ ይቻላል።

**ክፍል አንድ: የግል መረጃ**

እባክዎ መልስ ይሆናል ብለው ያሰቡትን ሳጥን ላይ ብቻ የጭረት ምልክት (✓) ያሰቀምጡ

1. ጾታ ፤ ወንድ  ሴት
2. ዕድሜ ፤ ከ20 አመት በታች  [20-30]  [31-40]  [41-50]  ከ 50 በላይ
3. ሃይማኖት ፤ ሙስሊም  ክርስቲያን  ዋቄፊታ  ሌላ
4. የትምህርት ደረጃ ፤ ከ10ኛ ክፍል በታች  ሰርተፍኬት/ዲፕሎማ   
 መጀመሪያ ዲግሪ  ማስተርስ ዲግሪ  ፒ.ኤች.ዲ
5. የትዳር ሁኔታ ፤ ያገባ/ች  ያላገባ/ች
6. የሥራ ሁኔታ ፤  
 የመንግሥት ድርጅት  የግል ድርጅት  የግል ሥራ  ተማሪ  ሌላ

7. በአለም አቀፍ እና ወይም በሀገር ደረጃ ከወለድ ነፃ የባንክ አገልግሎት መኖር ያለዎት የግንዛቤ ደረጃ ምን ይህል ነው?

በደንብ አውቃለው  በተወሰነ መልኩ አውቃለው  በጭራሽ አላውቅም

8. የየትኛው የባንክ አገልግሎት ተጠቃሚ ነዎት?

ከወለድ ነፃ የባንክ አገልግሎት  መደበኛ የባንክ አገልግሎት  የሁለቱም

9. ከኦሪጂናል ኢንተርናሽናል ባንክ ጋር ለምን ያህል ጊዜ በደንበኝነት ዘለቁ?

ከአንድ ዓመት በታች  1-3 ዓመት  4-6 ዓመት  ከ6 ዓመት በላይ

**መደብ ሁለት፡ ከወለድ ነፃ የባንክ አገልግሎት ለመጠቀም ደንቦች ላይ ተፅዕኖ የሚያሳድሩ ምክንያቶች**

እባክዎ በሰንጠረዥ ውስጥ የተቀመጡትን እያንዳንዱን ጥያቄዎች ካነበቡ በኋላ እንደስምዎትዎ መጠን ከተቀመጡት አማራጭ መልሶች ውስጥ በመክበብ (የጭረት ምልክት√) በማስቀመጥ መልስ ይስጡ።

መፍቻ፣ 1= በጣም አልሰማምም 2= አልሰማምም 3= ገልልተኛ 4= እስማማለሁ 5= በጣም እስማማለሁ

ተ/ቁ	ጥያቄ	አማራጮች				
		በጣም አልሰማምም	አልሰማምም	ገልልተኛ	እስማማለሁ	በጣም እስማማለሁ
<b>I</b>	<b>አመለካከት</b>					
	<b>አንፃራዊ ጠቀሜታ</b>					
1	በአብዳሪ እና በተብዳሪ መካከል ትርፍና/ኪሣራን በመጋራት የሚደረግ የብድር አገልግሎት ለሁለቱም ወገን ጠቀሜታ ያለው ነው።	1	2	3	4	5
2	ከወለድ ነፃ የባንክ አገልግሎት ከመደበኛ የባንክ አገልግሎት ጋር ሲወዳደር ዝቅተኛ ዋጋ ያስከፍላል።	1	2	3	4	5
3	ገንዘብን ሥራ ላይ ለማዋል ከመደበኛ የባንክ አገልግሎት ይልቅ ከወለድ ነፃ የባንክ አገልግሎት አስተማማኝ ነው።	1	2	3	4	5
4	በአጠቃላይ ከወለድ ነፃ የባንክ አገልግሎት ከመደበኛ የባንክ አገልግሎት የተሻለ ነው።	1	2	3	4	5
	<b>ሰለ ታላማነት</b>					
1	ከወለድ ነፃ የባንክ አገልግሎት በጣም ጥሩ የሥራ አፈፃፀም እንዳለው አምናለው።	1	2	3	4	5
2	ከወለድ ነፃ የባንክ አገልግሎት የገባውን ቃል እንደሚጠብቅ አምናለው።	1	2	3	4	5
3	ከወለድ ነፃ የባንክ አገልግሎት የደንበኞችን ፍላጎት በሚገባ ይጠብቃል።	1	2	3	4	5
4	ከወለድ ነፃ የባንክ አገልግሎት እምነት የሚጣልበት አገልግሎት ነው።	1	2	3	4	5
	□□□□□□					
1	ከወለድ ነፃ ባንክ አገልግሎት ከአስልምና እምነት ጋር ተስማሚ ነው።	1	2	3	4	5
2	ከወለድ ነፃ የባንክ አገልግሎት የሽሪዓውን መርህ ተከትሎ የሚሰራ ነው።	1	2	3	4	5
3	ከወለድ ነፃ የባንክ አገልግሎት ካለኝ ማህበራዊ እሴቶች ጋር ተስማሚ ነው።	1	2	3	4	5
4	ከወለድ ነፃ የባንክ አገልግሎት የአስልምና ሃይማኖት ፍልስፍናን የተከተለ ነው።	1	2	3	4	5
5	ከወለድ ነፃ የባንክ አገልግሎት ማንኛውንም የባንክ አገልግሎት ፍላጎቴን ይመልሰኛል።	1	2	3	4	5
	<b>ውስብስብነት</b>					
1	ከወለድ ነፃ የባንክ አገልግሎት አሰራርን ለመረዳት በጣም ብዙ የአእምሮ ሥራ ይጠይቃል።	1	2	3	4	5
2	ከወለድ ነፃ የባንክ አገልግሎት ሥራዎች የተወሳሰቡ ናቸው።	1	2	3	4	5
3	ከወለድ ነፃ የባንክ አገልግሎት መርሆዎች እና አሠራሮችን ለመረዳት አስቸጋሪ ነው።	1	2	3	4	5
4	ከወለድ ነፃ የባንክ ሂሳብ ለመክፈት አስቸጋሪ ነው።	1	2	3	4	5

	ስለ ስጋት	በጣም አልሰማም	አልሰማም	ገልልተኛ	አሰማለሁ	በጣም አሰማለሁ
1	እንደማስበው ከወለድ ነፃ የባንክ አገልግሎት አሠራር አስጊ ነው።	1	2	3	4	5
2	ከወለድ ነፃ የባንክ አገልግሎት አሠራር አያስተማምኝም።	1	2	3	4	5
3	እንደማስበው ትርፍና ኪሳራ በመጋራት ላይ የተመሰረተ ከወለድ ነፃ የባንክ አገልግሎትን መጠቀም አስጊ ነው።	1	2	3	4	5
4	እንደማስበው ከወለድ ነፃ የባንክ አገልግሎት መጠቀም ለኪሳራ ሊያጋልጠኝ ይችላል።	1	2	3	4	5
<b>አመለካከት</b>						
1	ከወለድ ነፃ የባንክ አገልግሎትን መጠቀም ፋይዳው የጎላ ነው።	1	2	3	4	5
2	ከወለድ ነፃ የባንክ አገልግሎት ጋር ትስስር መፍጠር እጅግ በጣም ጥሩ የሆነ ሃሳብ ነው።	1	2	3	4	5
3	ከወለድ ነፃ የባንክ አገልግሎትን መጠቀም ብልህነት ነው።	1	2	3	4	5
4	ከወለድ ነፃ የባንክ አገልግሎት ተጠቃሚ መሆን ተአማኒነት ያለው ነው።	1	2	3	4	5
<b>II የግል ስሜት</b>						
<b>ክብር የምሰጣቸው ሰዎች አስተያየት ተጽዕኖ</b>						
1	ክብር የምሰጣቸው ሰዎች ከወለድ ነፃ የባንክ አገልግሎትን መጠቀም እንዳለብኝ ያስባሉ።	1	2	3	4	5
2	ወላጆቼ ከወለድ ነፃ የባንክ አገልግሎትን መጠቀም እንዳለብኝ ያስባሉ።	1	2	3	4	5
3	ጓደኞቼ ከወለድ ነፃ የባንክ አገልግሎትን መጠቀም እንዳለብኝ ያስባሉ።	1	2	3	4	5
4	በአጠቃላይ ሌሎች(ክብር የምሰጣቸው ሰዎች፣ ወላጆቼ ወይም ጓደኞቼ) የሚሉኝን ማድረግ እንዳለብኝ አስባለው።	1	2	3	4	5
<b>የብዙሃን መገናኛ ተጽዕኖ</b>						
1	የመገናኛ ዘዴዎች ከወለድ ነፃ የባንክ አገልግሎት ለመጠቀም ጥሩ ስሜት እንዲኖረኝ አድርገዋል።	1	2	3	4	5
2	በኤሌክትሮኒክ ወይም የህትመት ማስታወቂያዎችን በመከታተል አገልግሎቱን ልጠቀም ችያለው።	1	2	3	4	5
3	በመገናኛ ብዙሃን የሚቀርቡ ፅሁፎች ከወለድ ነፃ የባንክ አገልግሎትን እንድጠቀም ተፅዕኖ አሳድረውብኛል።	1	2	3	4	5
<b>የግል ስሜት</b>						
1	ክብር የምሰጣቸው ሰዎች ከወለድ ነፃ የባንክ አገልግሎትን እንድጠቀም ተጽዕኖ አሳድረውብኛል።	1	2	3	4	5
2	ወላጆቼ ከወለድ ነፃ የባንክ አገልግሎትን እንድጠቀም ተጽዕኖ አሳድረውብኛል።	1	2	3	4	5
3	የቅርብ ጓደኞቼ ከወለድ ነፃ የባንክ አገልግሎትን እንድጠቀም ገፋፍተውኛል።	1	2	3	4	5
4	ከሐይማኖት ተቋማት የማገኛቸው ትምህርቶች ከወለድ ነፃ የባንክ አገልግሎትን እንድጠቀም ተፅዕኖ አሳድረውብኛል።	1	2	3	4	5
5	ከተለያዩ ማስታወቂያዎች የማገኛቸው መረጃዎች ከወለድ ነፃ የባንክ አገልግሎትን እንድጠቀም ተፅዕኖ አሳድረውብኛል።	1	2	3	4	5

6	ከወለድ ነፃ የባንክ አገልግሎት ተጠቃሚ መሆን ከእኔ የሚጠበቅ ነገር ነው።	1	2	3	4	5
<b>III</b>	<b>ድርጊትን የሚቆጣጠሩ ተግባራት</b>	በጣም አልስማማም	አልስማማም	ገልልተኛ	እስማማለሁ	በጣም እስማማለሁ
	<b>የራስ ብቃት</b>					
1	ከወለድ ነፃ የባንክ አገልግሎትን ለመጠቀም በቂ የሆነ አቅም አለኝ።	1	2	3	4	5
2	ከወለድ ነፃ የባንክ አገልግሎትን ለመጠቀም በቂ ዕውቀት አለኝ።	1	2	3	4	5
3	ከወለድ ነፃ የባንክ አገልግሎትን መጠቀም ምቹት ይሰጠኛል።	1	2	3	4	5
4	ከወለድ ነፃ የባንክ አገልግሎትን ከዚህ በፊት ተጠቅሜ ባላውቅም አገልግሎቱን መጠቀም እችላለሁ።	1	2	3	4	5
	<b>አመቺ ሁኔታዎች</b>					
1	የሸሪዓ አማካሪ ኮሚቴዎች ለወለድ ነፃ የባንክ አገልግሎት ምቹ ሁኔታ ይፈጥራሉ።	1	2	3	4	5
2	የብሔራዊ ባንክ መመሪያዎች በአግባቡ ለወለድ ነፃ የባንክ አገልግሎት ምቹ ሁኔታ ይፈጥራሉ።	1	2	3	4	5
3	መንግስት ከወለድ ነፃ የባንክ አገልግሎትን መስፋፋትን ይደግፋል።	1	2	3	4	5
4	እንደ መደበኛው የባንክ አገልግሎት ሁሉ በወለድ ነፃ የባንክ አገልግሎት የተሟላ የባንክ አገልግሎት ማግኘት ይቻላል።	1	2	3	4	5
	<b>አድራጎትን የሚቆጣጠሩ ተግባራት</b>					
1	ስለ ከወለድ ነፃ የባንክ አገልግሎት ያለኝ ዕውቀት ለተጠቃሚነቴ አስተዋፅኦ አለው።	1	2	3	4	5
2	ከወለድ ነፃ የባንክ አገልግሎት እንዲስፋፋ መንግስት ያለው ድጋፍ የአገልግሎቱ ተጠቃሚ እንድሆን አስተዋፅኦ አሳድሮብኛል።	1	2	3	4	5
3	ፍላጎቱ እስካለኝ ድረስ ከወለድ ነፃ አገልግሎት ጋር የጠበቀ ትስስር መፍጠር እችላለሁ።	1	2	3	4	5
4	እንደማስበው ከወለድ ነፃ የባንክ አገልግሎትን ተጠቃሚ መሆን በእኔ ቁጥጥር ውስጥ ነው።	1	2	3	4	5
<b>V</b>	<b>የአድራጎት አሳብነት</b>					
1	ከወለድ ነፃ የባንክ አገልግሎትን ጥቅም በሚገባ ከግምት ውስጥ አስገባለሁ።	1	2	3	4	5
2	በቅርቡ ከወለድ ነፃ የባንክ አገልግሎት ተጠቃሚ ለመሆን አስባለሁ።	1	2	3	4	5
3	ሌሎች ሰዎች ከወለድ ነፃ የባንክ አገልግሎት ጠቀሟል እንዲሁኑ በደንብ ሃሳብ አቀርባለሁ።	1	2	3	4	5
4	በአጠቃላይ ስለ ከወለድ ነፃ የባንክ አገልግሎት ያለኝ የመጠቀም እይታዬ በጣም ከፍተኛ ነው።	1	2	3	4	5

በጣም አመሰግናለሁ !!!

Appendix-2: WarpPLS output-SEM

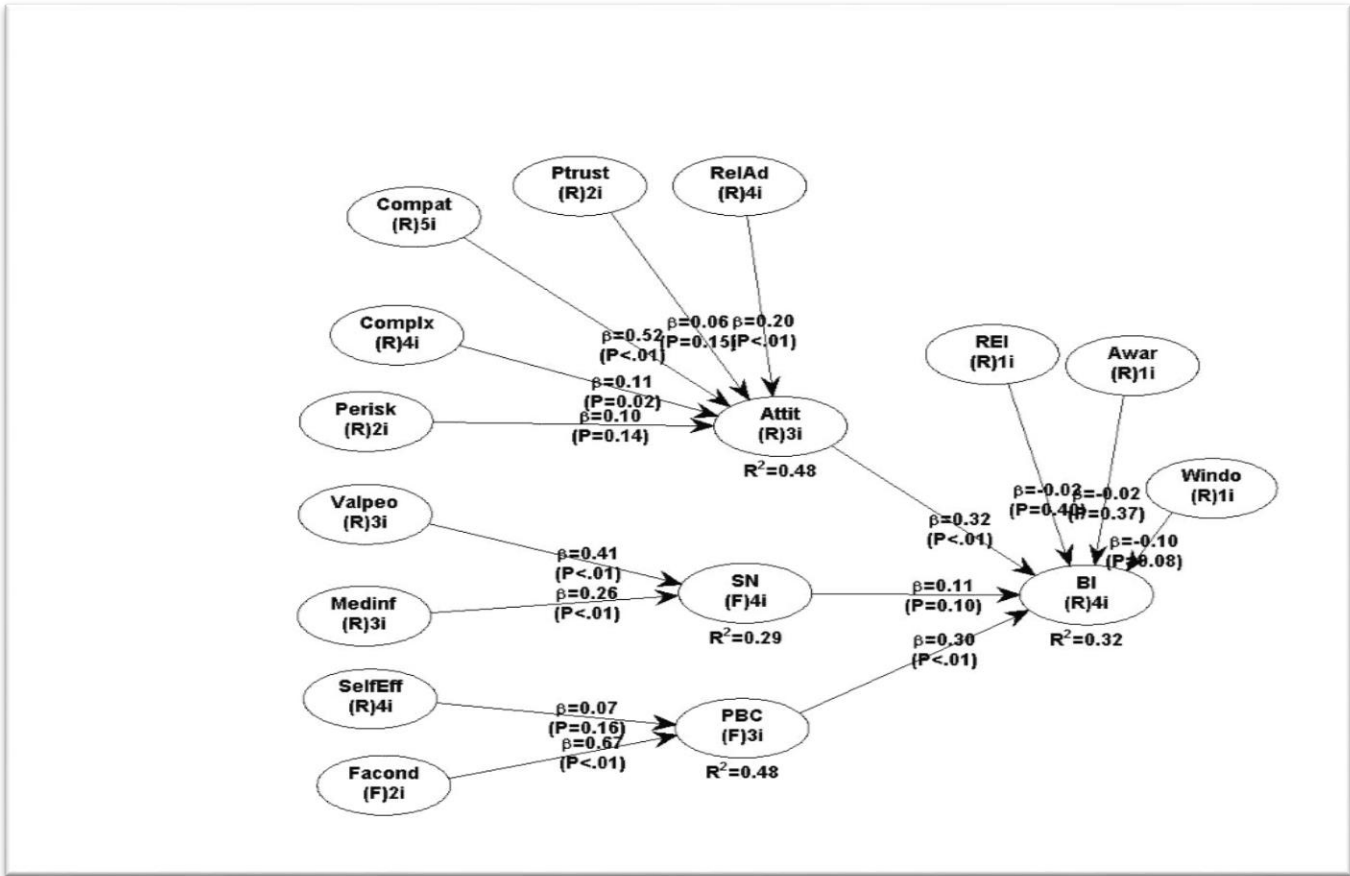


Figure 8: Path Coefficient with Demographic Variable

Table 15: Path coefficients and P values

Path coefficients and P values													
Path coefficients													
	RelAd	Ptrust	Compat	Complex	Perisk	Attit	Valpeo	Medinf	SN	SelfEff	Facond	PBC	BI
Attit	0.202	0.057	0.518	0.107	0.101								
SN							0.41	0.262					
PBC										0.072	0.671		
BI						0.330			0.103			0.316	
P values													
Attit	<0.001	0.136	<0.001	0.02	0.026								
SN							<0.001	<0.001					
PBC										0.083	<0.001		
BI						<0.001			0.024			<0.001	