

**Use of Neuro-Market Approach to Provide Better  
Marketing Proposition for Banking Products/  
Financial Banking Accounts to Solve Issue of  
Financial Inclusion**



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## CERTIFICATE

This is to certify that this thesis entitled: **“Use of Neuro-Market Approach to Provide Better Marketing Proposition for Banking Products/Financial Banking Accounts to Solve Issue of Financial Inclusion”** submitted by Ms. Sadia Tariq is accepted in its present form by the Department of Business Studies, Pakistan Institute of Development Economics (PIDE), Islamabad as satisfying the requirements for partial fulfillment of the degree of **Master of Science in Management Sciences**.

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## **Author's Declaration**

I Sadia Tariq here by state that my MPhil thesis titled “Use of Neuro-market approach to provide better marketing proposition for banking products/ financial banking accounts to solve issue of financial inclusion” is my own work and has not been submitted previously by me for taking any degree from Pakistan or anywhere else in world.

At any time if my statement is found to be incorrect even after my graduation the university has the right to withdraw my degree.

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Sadia Tariq

## **Dedication**

*Dedicated from core of my heart to my beloved parents Mr. & Mrs. Muhammad Younas Tariq for financial and ethical support and my respected teacher Dr. Nadeem Ahmed Khan for technical and ethical support.*

## **ACKNOWLEDGEMENTS**

All the praises are for the Allah Almighty; the most beneficent and the most merciful; Who granted man with knowledge. All salutations are upon the Prophet (P.B.U.H.) Whose teachings enlighten my thought and thrives my ambitions.

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## **ABSTRACT**

The central focus of this effort is to link the use of neuromarketing approach towards issue of low awareness relate to financial inclusion in Pakistan. This research aims to provide various market stimuli in form of themes or categories from expert's opinions. Which is suggested to be use for analyzing customers by linking it to the neuromarket technique that will capture accurate brain insights. For getting refine stimuli initially the study is based on designing semi-structure interviews, which is formed on basis of studied literature along with other observations. Then by using case study method eight detail interviews are conducted from parent companies or middle companies between authorities and microfinance banks the commercial banks. After data collection thematic analysis is performed to abstract themes or indexes from edited transcripts. Five broad categories are formed where each separate category composed of further subtopics. The categories of study are "Service quality, Banking environment, Basic financial educations, Changing advertising themes, and Uniform technology platform". At last this study suggest framework base on identified categories for future testation, while using neuromarket technique as investigating instrument place at position of organism stage of S-O-R model. The choice of selecting among these techniques will depend upon requirement and management concerns by the practitioners. After identifying reasons for low inclusion, practitioners will be able to filter the gaps in existing messages provided by them. Positive and negative responses identify by analyzing brain insights will help them to design better marketing propositions while communicating to concern audience.

### **Keywords:**

Financial Inclusion, Financial Service providers, Neuromarketing, Market stimuli, Stimulus-Response Mechanism, Communication gap between supply and demand, Market System Function, Neural Network Procedure, and Reward system.

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## LIST OF ABBREVIATIONS

ACU	Australian Credit Unions
ADB	Asian Development Banks
AMAS	Asaan Mobile Account Scheme
AML	Anti-Money Laundering
ANS	Automatic Nervous System
API	Application Programing Interface
ATM	Automatic Teller Machine
CGAP	Consultative Group to Assist the Poor
DFS	Digital Financial Services
ECG	Electrocardiography
EEG	Electromagnetic Technique
fEMG	Facial Electromyography
FI	Financial Inclusion
FII	Financial Inclusion Insights
fMRI	Functional Magnetic Resonance Imaging
FSPs	Financial Service Providers
G20	Financial Inclusion Experts Group
G2P	Government to Person
GSMC	Global System for Mobile Communication
IFC	International Financial Corporation
KYC	Know Your Customers

LAC	Latin America & Caribbean
MEG	Magnetoencephalography
MENA	Middle East & North America
MFBS	Microfinance Banks
MFI	Microfinance Institutions
MMOs	Mobile Money Operators
MoF	Ministry of Finance
MPPS	Mobile Phone Payment Solutions
NBFIs	Non-Bank Financial Institutions
NBP	National Bank of Pakistan
NFIS	National Financial Inclusion Strategy
NTs	Neurotransmitters
OECD	Economic Co-operation and Development
OTC	Over the Counter
P2G	Person to Government
PET	Positron Emission Tomography
PNS	Parasympathetic Nervous System
POS	Point of Sale
PTA	Pakistan Telecommunication Authority
SBP	State Bank of Pakistan
SC	Skin Conductance
SECP	Security and Exchange Commission of Pakistan
SHG	Self Help Group

SME	Small Medium Enterprise
SNS	Sympathetic Nervous System
SSA	Sub-Saharan Africa
SST	Steady-State Topography
SSVEP	Steady-State Visually Evoked Potential
TMS	Transactional Magnetic Stimulation
TPSP	Third Party Service Providers
UNSG	United Nations Secretary Generals
USSD	Unstructured Supplementary Service Data
VTA	Ventral Tegmental Area
WOM	Word of Mouth
ZTBL	Zarai Taraqati Bank Limited

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction to study:

Currently the global issue of introducing all segments of society to avail formal financial services grasp the attention of policy makers, state's government sector, microfinance institutions, and even data management departments of every nation (Raza, Tang, Rubab, & Wen, 2019). All the made efforts are not producing require outputs because audience for whom such services are introduce, are not aware with the exact benefits of using them (Akhtar, 2007). Concept understanding of inclusion just by the service providers are not enough to increase the level of financial inclusion in Pakistan. However, mismatch between supply and demand of financial inclusion services limit the access and use of these services along with affecting quality of available services (Burjorjee & Scola, 2015). The understanding and knowing gap of communication between these components of societies indicate the low level of inclusion. These financial services are provided by various Microfinance Institutes (MFIs), Microfinance Banks (MFBs), and through Mobile Money Operators (MMOs) (Gattoo & Akhtar, 2015). The marketing issue of financial inclusion is been studied by this research that focuses on knowing the ways they communicate their messages to concern poor class and low income adults. This study aims to obtain opinions of different experts related to prevailing issue of low financial inclusion and also to know whether this market is aware with use of emerging technology of neuromarket across globe. In most simple words it extracts the true description of what your brain think and how it process information that lead to certain decision making. The output behavior is causes of various input processes but it's not easy to know what actually occurred inside brain within the shortest period of time (Burgos-Campero & Vargas-Hernandez, 2013).

The importance of financial inclusion comes after the worst recession when main players of economies are failed to run the economy. After this, policy makers find that unbanked individuals especially poor audience are the least affected by the recession and their routine life cycle were somehow on previous route. They hardly depend upon any financial system and based on own savings and money in hand (Soederberg, 2013). After this incidence policy makers along with G20 leaders, World Bank, and International Financial Corporation (IFC) focus on including



such segments to the financial system that can provide boost to the function of formal economy and even provide edge over hard times. It indicate high level of significance for every state to earn such kind of sustainability (Demirguc-kunt, Beck, & Honohon, 2008; Soederberg, 2013). Organizations and institutes have sufficient amount of data on calculating the level of financial inclusion but building the market system function to coordinate with customers is very poor in developing nations (Burjorjee & Scola, 2015). Further customers are not aware with the need of using such services. The marketing platforms used by them are totally traditional and on very low level by the microfinance banks (ZTBL, 2017). The initial query is to find through experts whether poor or low-income audience are aware with the concept of financial inclusion or not.

Marketing dimensions for knowing customers have been continuously changing with introduction of more technology concerns. In business environment service providers focus on understanding the perception and psychology of their concern consumers (Morin, 2011). The more they understand their customers the more they will earn success along with market penetration. Next is to find the presence of neuro-market approach in Pakistani context. This study aimed to focus over providing the guideline to test various market stimuli provided by experts to associate with neuro-market techniques. This technique is suggested to be place as investigating instrument at organism stage of S-O-R model. Which will help to clearly describe the state of mind (Venkatraman et al., 2015). For requiring modifications, innovations, flexibility in pricing and offerings, and changing way of communicating customers by approaching and targeting their unconscious levels or through their subliminal reactions give birth to the new subfield of marketing along with the stance of science and technology known as neuromarketing (Klinckova, 2016). The parent field neuroscience which is the direct connection of monitoring the brain activities through use of certain techniques. It provide its usage and implementation in studying the social sciences (Klinckova, 2016).

In marketing and consumer behavior focus is to measure and predict behaviors while displaying subjects towards study stimuli (Min, Chang, Jai, & Ziegler, 2019). For having some behavioral predictions, marketers form different advertising and communication strategies and put a lot of investments there. The existing processes are consuming more time, efforts and risk of input investments that can be minimized by using neuromarket techniques (Morin, 2011). Number of neuroscience techniques are available few are portable or few are laboratory testing base.

Organizations can use them on basis of their operational capacity such as; whether need more spatial or temporal resolution, whether electric or magnetic exposers, and whether facial muscles testing or eye tracking are required. (Lim, 2018). In Pakistan hardly any such techniques are used both for digital and physical presence of interactions or association (Rehman, Shamsi, Rehman, Ali, & Faraz, 2016).

The products and services are initially designed according to the needs of target audience further changes are made after its proper introduction to market. If targets are not familiar and even they are not inclined towards it then there must be missing gaps within the platforms they used to address messages. By using market of science is to investigate the cognitive processes of targets that will help to get accurate causes behind such decision making process of individuals (Ghorpade, 2017). Similarly target audience for availing financial inclusion services are not investigated properly and is lead by low level of financial inclusion. In 2014, from rest of population only 10.3% have formal bank accounts (Fantom & Serajuddin, 2016). Service providers had focused from all angles in order to bring increase. They introduced number of platforms such as; interlinking telco industry with banking industry, introducing digital access, and promoting through NBFi platform but level increased just by 10 percent (from 10%-to-20%) till 2017 (Demirguc-Kunt, Klapper, Singer, Ansar, & Hess, 2018).

Hence this study aimed to provide idea about why such low level of inclusion exists in Pakistan. Inclusion for the sector of financial system is considered among important objectives for all around the world specifically for developing nations (ZTBL, 2017). The primary explanation for its relevance is that there is a strong connection between the country's financial exclusion and prevalent state of poverty (Demirguc-kunt et al., 2008). Usually the weaker segment of societies are ignored by formal operating financial institutions with in country and it will lead by creating low inclusion level that means the imbalance investment patterns. Which will further lead to create problems for formal economy (Hannig & Jensen, 2010). This segment is ignored because of engaging in making cubes of profits from high investors or due to complexities in service providence for them.

The biggest challenge for financial inclusion is to bridge the gap between segments of societies that are consider excluded financially within the framework of formal financial system. Which will help to increase the financial literacy for this segment and improving credit distribution

systems to boost financial economic development. Thus this procedure enter the market to ensure easy access to financial services with affordable cost (Burjorjee & Scola, 2015). According to World Bank (2014), financial inclusion is defined as, “An absence of price or non-price barriers in the use of financial services” (p. 3). It is **created** by providing access to individuals and businesses for full set of required financial products and services such as, “Transactions, savings, payments, credit and insurance.” Included individuals are those having accounts by their names that are linked to full service financial institution (ZTBL, 2017).

It is **measured** by taking the percentage count for adults of age 15 and above, who have at least one proper formal bank account with their name providing full financial services and is operating under some form of governmental regulations. Full service institutions include, “mobile money service providers, banks and nonbank financial institutions. Nonbank financial institutions include financial cooperatives and Micro-finance institutions (ZTBL, 2017). For measuring complexity zone of its measurement, it required more than just defining its indicators. Which counts for providing translation of this concept into operational stance that allow to track continues progress and outcome of operations. Hence prior to making any policy discussion and decision related to outcome of inclusion, there are four lenses that are used in order to measure its complexity as; “Access, Quality, Usage, and Impact” (Hannig and Jansen, 2010).

First complexity measure is **access** which is defined as; “The ability to avail concern financial services and products which are available through accessing formal institutions. While deep understanding of access describe the level of potential barriers for opening and even using bank accounts for required purpose such as cost and physical proximity of bank service points (like branches and respected ATMs). The most basic proxy for access can be derived by counting number of accounts opened across financial institutions and estimating proposition of population with an account” (Hannig & Jansen, 2010, p. 3). Second is the **quality** which is defined as; “It is the relevance of financial product or service to lifestyle needs of customers. It encompasses their experience, demonstration of their opinions, and attitudes towards currently available products and services. This measure is used to find magnitude of nature and depth of relationship between consumers and financial service providers as well as the relationship between available choices and understanding level of consumers towards provided choices and implications” (Hannig & Jansen, 2010, p. 3).

Third is the *Usage* which is described as; “Aside from the basic adoption to banking services this lens focuses more over performance and depth of using financial products and services. It requires more details related to regularity, duration and frequency of use over time. For measuring this complexity indicator it required the information that reflects point of view of user and gathering of data is done from demand-side survey” (Hannig & Jansen, 2010, p. 4). Fourth is the *impact* that “Measure changes in lives of consumers which can be attributed to usage of a financial device or service, poses serious methodological challenges to survey design” (Hannig & Jansen, 2010, p. 4).

Collected information for measurement aspect can be from demand side or from supply side or from both sides. Demand side include firms or individual households and supply side include financial institutions and service providers (Burjorjee & Scola, 2015). Hence its measurement serves for basic two purposes as; first the assessment and monitoring of financial rate is identified, and second, it refine understanding and awareness of various factors that correlate with financial inclusion along with highlighting its impact over implemented policies (Hannig and Jansen, 2010). Such data help to find the approximate number of individuals having access to and using some sort of product or service. Data of one country can be used to link to other country factors (such as population characteristics). Which will help them in identifying and catalyzing approaches and policy concern for implementation of financial inclusion system (Burjorjee & Scola, 2015).

Aside from measuring aspect it require proper marketing interaction with target audience. The reasons behind prevailing negative perception among consumers will be identify by using neuromarket approach. Because goal of neuromarketing is to capture the physiological responses of brain after subjecting to advertising and marketing strategies (Lee, Broderick, & Chamberlain, 2007). It will help to know and understand thinking process of consumers and capture the emotional responses that will help to increase effectiveness of various commercial activities (Burgos-Campero & Vargas-Hernandez, 2013). “The human mind is formed on bases of interactions between nervous system and its organism” (Damasio, 2018, p. 48). Hence decision making process counts for coming interconnection between the neurobiology and thoughts. According to research conducted by Braidot (2005) while analyzing the deep mental process of consumers during decision making indicates that approximately 95% of unconscious brain

participates rather than conscious one. In real life scenarios consumers think they are well aware with their decision making process and can describe their unconscious state of mind (Burgos-Campero & Vargas-Hernandez, 2013). Few years before market scholars believed that their work are reliable and effective enough which help businesses to form informed decisions. But reported conclusion shows opposite outcomes such as Pradeep (2010) reported 80% of failures for entry of new products and implemented high economic cost that indicate the evidence of high level of difficulties for operations. According to Morin (2011), annually over \$40 billion are invested for marketing activities try to predict result effectiveness, which shows flaws outcome. The reason behind this is because of dependence on willingness and capability of customers to highlight their emotions and feelings to subjected activities. Where they assumed that they can describe their own cognitive processes. But they were not aware that their cognitive processes are further compose of many other subconscious layers that are the main cause for all difficulties (Burgos-Campero & Vargas-Hernandez, 2013). Later on Del-Blanco (2010) found similar outcomes that 95% of purchases are being taken by subconscious area of mind (Banos-Gonzalez, Baraybar-Fernandez, & Rajas-Fernandez, 2020).

Pakistan is for behind in adopting the technology and advance techniques such as the suggested neuromarket technique that is used to obtain direct input to the subjected stimulus from using brain circuits. In addition to marketing, number of areas in finance have been studied by researchers by using the neural approach such as; market analysis of stock exchange, financial reporting, credit services and financial investment concerns (Ermenko & Kuzmina, 2019; Semieoglu, 2019). The use of these approaches providing accurate information because such real data permits clear picture and understanding of consumer psychology and describe the involvement of their emotions while making decisions (Gani, Alam, Alom, & Faruq, 2018). Reactions to the marketing stimuli through the study of brain responses and biological reactions help to obtain registered data and can be quantified for further analysis and implementation (Banos-Gonzalez et al., 2020). The market stimuli given by the experts can also provide help to solve the issue of financial inclusion by changing the behaviors and perceptions of the target audience after analyzing brain circuits through use of neuromarket approaches.

Hence this study initially describing gaps within existing literature that transform it into problem statement of associate study. Then it will describing research questions and research

objectives. Further explaining limitations for conducting this effort and highlighting the underpinning theory that is link to output suggested framework. Literature will highlight presences of statistical data set that depict low level of inclusion around rest of developing nation towards study state Pakistan. It will also describing reasons behind low level of financial inclusion and explaining the lack of proper market system function in Pakistan. For neuromarketing approach it explains the use and importance of this approach, describing already conducted studies by different businesses, associating with concept of reward system procedure, extensions of neural network process towards building various market and finance oriented systems, and elaborating techniques of neuromarket approach. Next for methodological aspect, it focus over case study analysis to gather eight detail interviews from experts and perform thematic analysis to filter important categories from set of edited transcriptions. After data analysis suggested framework is formed which is link to existing model base of S-O-R theory. At end various experimental trails are suggested by linking marketing activities with use of neuromarket approach. For all categories, separate experimental trail is described.

### **1.1.1 Literature gap:**

The study is associate to explain three gaps within literature. First gap is linked to the low level of awareness towards financial inclusion. Awareness level is also linked to access factor initially that act as dominant barrier for prompting concept of financial inclusion (Beck, Demirguc-kunt, & Levine, 2007). For this, service providers start focus on increasing number of platforms for providing services but no one grasps opinion of customers regard using such services. Currently low levels of efforts have been made in order to increase awareness for product and services. Awareness related to financial inclusion will be induce by building market system function in Pakistan (CGAP, 2015; Burjorjee & Scola, 2015). Which include all components of supply and demand in market by balancing all of supporting functions, rules and norms of society (CGAP, 2015). Aside from Mobile Money operators (MNOs) existing Microfinance Institutes (MFIs) and Microfinance Banks (MFBs) have very limited focus on increasing awareness among audience through using traditional platforms (Mustafa, 2015). Low level of awareness among audience act as barrier towards accessing product and services of financial inclusion (Atkinson & Messy, 2013). Aside from availing services low level of awareness create problem for individuals in terms of making full use of their existing products (Akhtar, 2007; Atkinson & Messy, 2013). Therefore existing low awareness level lead to less utilization of services as what rest of literature indicate

in form of statistics. Thus this study is focus to identify important market stimuli that should be use by MFBs to properly communicate their messages to audience.

*Table 1.1: Conducted Studies for Financial Inclusion*

<b>Scholar/ Institutes indicate the presences of low level of financial inclusion in Pakistan (in form of Statistics)</b>	<b>Work performed with in following years</b>
Ansar, Beck, Demirguc-kunt, klapper, Hess, Honohan, Lewis, Singer, Villasenor, and West.	2007, 2008, 2013, 2015, 2017, & 2018.
Asian Development Bank (ADB).	2010 & 2015.
Global Findex Database.	2009, 2011, 2014, 2015, 2017, & 2018.

Second gap is related to less familiarity towards neuromarket approach in Pakistan. Research related to neuromarket approach in Pakistan is in its infant state that is even categorized with many limitations in its application including complexity of its understanding, high cost for implementation, and less availability of technology to this industry (Hammou, Galib, & Melloul, 2013). First there is no practice of neuromarketing in Pakistan and let suppose if someone try to practice then there is a requirement of equipment along with experts to conduct it (Rehman et al., 2016). In Pakistan, currently one setup is available (name as brain image) based on providing basic services related to eye tracking, mouse tracking, and measuring facial coding (Mahmud Akhtar, n.d.). They provide services for marketing consultancy and corporate training for neuromarketing (Brian image, n.d.). They have academic collaboration with Institute of Business Administration (IBA) Karachi, and clients are Cool Tool, Pepsi, and P&G (Mahmud Akhtar, n.d.). Aside from practice its presences in academics is also to a very less extend as indicate by manager’s perception in Pakistan (Rehmen et al., 2016).

Third gap is related to prediction or estimation of response output by using existing S-O-R model. Researchers predict or estimate behaviors based on consumer’s characteristics associate to context of study (Hetharie, Hussein, & Puspaningrum, 2019; Park, Jinhye, & Lennon, 2006). Practitioners are not able to accurately describe unconscious or emotional aspects of consumers. The important aspect is to grasp the emotional/ unconscious state of your target audience which is from centuries ignored because of lack of measurement access and had always been estimated and

predicted (Fugate, 2008; Banos-Gonzalez et al., 2020). These inaccurate means of prediction always create difficulties in communicating with audience and also deal by failures of many starting of businesses (Pradeep, 2010). Hence this study result into framework that is suggested for future testation while using neuromarket approach. Use of this approach will help the practitioners to capture accurate reasons instead of estimating and predicting them.

### **1.1.2 Problem statement:**

This study circulates around the marketing issue of low financial inclusion in Pakistan. For in-depth understanding their exists numbers of other issues that lead to create this problem as the less understanding and awareness among the target audience towards financial inclusion, prevailing weak market system function in Pakistan's financial environment and even lack of understanding of these issues by the service providence of this market. Traditional marketing approaches are not providing the required results and even the patterns of rules and regulation imposed by the policy makers also not providing the supporting edge to boost level of inclusion. Hence for resolving the consistent issue of low financial inclusion in Pakistan this study will help to indicate certain market stimuli by market expert's opinions that can be associate with use of neuro-marketing approach to provide a guideline for microfinance banks / financial institutions to make their services more attractive propositions that will help to minimize the barriers for financial inclusions and guideline for the banks to consider the ignored long tails (unbanked population). Even to measure the marketing activities and services as a medium to communicate their message to the targets effectively.

### **1.1.3 Research Questions and Objectives:**

This research circulates around opinions given by experts related to low awareness of financial inclusion in Pakistan along with describing all important stimuli to minimize this current issue. In addition it will also cover aspects of identifying awareness level of neuromarket approach. Even to find their opinions for use of neuromarket approach whether they understand its importance in identifying the accurate reasons behind prevailing negative attitude and perception among consumers or not. Hence study is based on following research questions;

- a) What is the state of awareness for financial inclusion among poor or low income audience?
- b) What is the state of awareness regard neuromarketing phenomenon in Pakistan?



- c) What are the important market stimuli that can solve prevailing marketing issue of financial inclusion in Pakistan?
- d) How we can expand the use of neuromarket techniques in Pakistan for solving marketing issue of financial inclusion?

The objectives associate to this research are as follows;

- a) To find the state of awareness for financial inclusion among poor or low income audience.
- b) To find the state of awareness regard neuromarketing phenomenon in Pakistan.
- c) To find out important market stimuli that can solve prevailing marketing issue of financial inclusion in Pakistan.
- d) To expand the use of neuromarket techniques in Pakistan for solving marketing issue of financial inclusion.

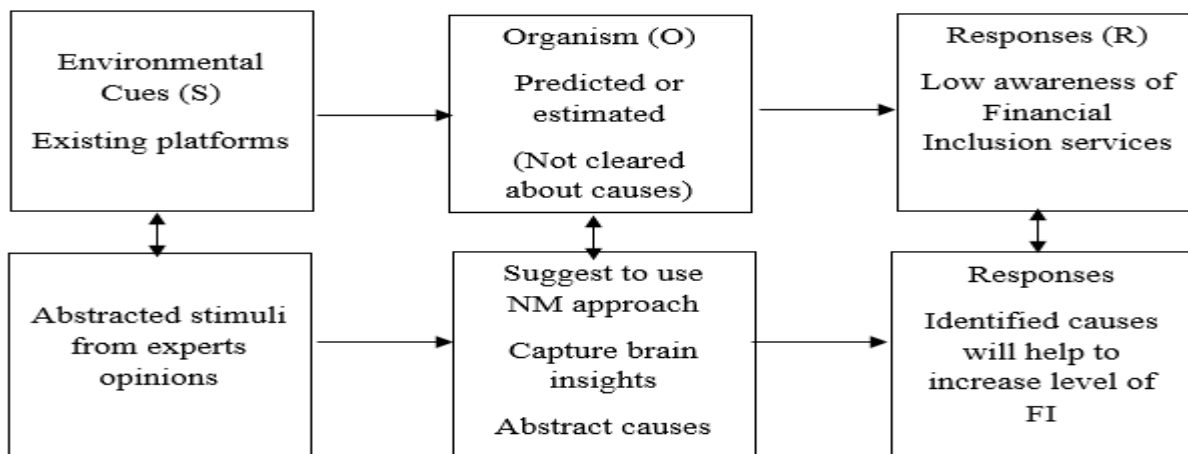
#### **1.1.4 Theory base:**

The underpinning theory associate to this study is linked with S-O-R theory. This research aims to provide idea relate to identify series of causes behind prevailing low awareness of financial inclusion. Target audience are currently not inclined towards these financial services although number of different channels are provided by service providers. S-O-R theory helps to investigate human behaviors while decision making towards concern event (Jeong, Kim, & Kim, 2020). Robert Session Woodworth (1954) initially introduced this theory by linking Stimulus-Response mechanism with placing organism stage that describe the emotional or subconscious component (Hetharie et al., 2019). Consumer's emotions are considered the important part in assessing responses after subjecting to environmental stimuli. The model also interpret that both conscious and unconscious perceptions along with environmental interpretation influence feeling criteria of subjects (Donovan, 1982).

The involving subjects by researchers aim to predict or estimate behaviors based on consumer's characteristics associate to the study context (Hetharie et al., 2019; Park et al., 2006). Whatever the study context relates to, response output is estimated on basis of provided modified dimensions. Mehrabian and Russel (1974) modified the existing theory by providing three dimensions of emotional responses after subjecting to associate environment as; "Pleasure, Arousal, and Dominance". He further developed the model to study consumer behaviors where environmental stimuli (S) are responsible for causing two types of behavioral responses as;

“Approach or Avoidance”. The output behaviors (R) are results of individual’s internal evaluation (O) towards these cues (Cui & Lai, 2013). Decision making process of individuals can be better analyzed through using Mehrabian-Russel model (Hetharie et al., 2019).

This study aims to find out various important stimuli from experts. Then suggest to test them while using model application of S-O-R theory. Where neuromarket technique is suggested to use as an investigating technique at position of Organism. This will help to filter the accurate reasons behind prevailing issue inside minds of targets. The stimuli abstract from interviews will be acting as environmental cues (S). Then neuromarket instruments will be place at testing environment at the stage of organism (O) where the reasons behind not using the services will be capture. At end the exact story behind produce responses will be identify. Existing literature related to prevailing issue of negative responses as result of distrust and complexities in understanding process will be enlightened by measuring the accurate reasons behind existing problem. Because currently subjected stimuli are not according to need of target audience. Through analyzing the brain activities will further provide better causes for low inclusion level within Pakistan.



**Figure 1.1: Interlink Between use of Neuromarket Approach with Existing S-o-R Model**

**1.1.5 Practical and Theoretical significance of study:**

This study has abstracted various market stimuli through interviewing experts by using cash study approach given by Robert K. Yin, Sharan Merriam, and Robert E. Stake. These stimuli are further subdivided into five define set of categories through using thematic analysis given by Ritchie, Spencer, and O’Connor (2003). All filtered categories are placed at position of stimulus stage of S-O-R model given by Robert Session Woodworth and Mehrabian Russel. Each separate

category act as environmental stimuli that can be tested by using traditional approach of S-O-R model. But here suggested framework is recommend to be analyzed by using neuromarket technique at stage of organism at S-O-R model. Therefore it initially contribute to academics in literature that will highlight the use of neuroscience approaches to solve issues in studying marketing and consumer behaviors. Problem behind low level of awareness and existence of financial inclusion is yet not clearly identified. Hence this study contributed various refine set of categories that should be used along with neuromarket technique. Which is able to identified accurate reasons behind this existing issues. After testing these categories through generating hypothesis will serve as new linkages to existing model of S-O-R theory. Next it is contributed to modify existing digital platforms with inbuilt neuromarket transmitters that will help to grasp the issues in existing inclusive environment.

For managerial or contextual contribution, this study indicate the requirement for learning and training in cognitive neuroscience by Pakistani industries. This conducted effort is specially linked to measure the consumer's behaviors towards using financial inclusive services thus contributed this industry to start focusing over learning cognitive neuroscience that will help them in using suggested technique of neuromarketing. This behavior is dominantly adopted by developed nations (Lindstorm, 2012; Klineckova, 2016; Semieoglu, 2019; Ermenko & Kuzmina, 2019). This kind of changes require long time period to occur thus for short term reforms it is recommended to train agents and introduce proper market system function.

#### **1.1.6 Limitations of this study:**

Limitations associate to this conducted study count for time issue, and lacking of other resources such as; money and management concerns. The time provided to complete this research was around three months. Where this study count for introducing an intervention which usually require long period of time. Next for resource considerations, this effort need practical support with the concern organizations. Currently neuromarketing techniques are rarely used by Pakistani industry and require initial high investment to purchase these instruments. Due to time and resource issues we confined this study towards conducting interviews and suggesting various important categories. For management concern, it require cognitive learning and understanding for using the suggested technique of neuromarketing. Due to time restriction along with other lacking resources this research is subjected just towards conducting interviews and its analysis.

## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Financial inclusion:

Sufficient amount of data is available for financial inclusion but main incident click attention after 2007-2008 financial crisis, which contributed to the importance of financial inclusion by associating it with the concerns of global development (Raza et al., 2019). It was broadly related to the policy tool in order to boost stability and growth on one side and reducing poverty on the other side (Soederberg, 2013). It aimed to provide the access to formal or semiformal financial services for approximately 1.7 billion of adults belonging to low-income and poor class across the globe. These services ranging from formal bank accounts to micro-credit services to housing loans (Demirguc-Kunt et al., 2018; Global Findex Database, 2017; Hassan, Muhammad, Sarwar, & Zaman, 2020). In order to solve crisis the G20 leaders (Financial Inclusion Experts Group) consider inclusion as the most important development scheme for both financial system stability and reducing worldwide recession period (Soederberg, 2013). The period of 2008 formed the bases for series of new policies and strategic implementations by the major players. “The financial-led Capitalism was then modified by the Neo-liberalization according to the utopian vision, to provide the free society and free economy based on individual liberty” (Soederberg, 2013, p. 596). Then for such transformation from Capitalism concept to Neo-liberalization concept certain changes were made in existing laws and recognized as the soft laws (Soederberg, 2013; Pasini, 2013).

In 2009, improving access to financial services that are aimed to reach low income adults are introduced by G20 Leaders. Innovative Sub-group of G20 experts are assigned to meet these goals at Pittsburgh (City in Pennsylvania USA), which consists of certain Flexible principles along with involvement of three main enforcing players as; “Alliance for Financial Inclusion (Bill & Melinda Gates funding Foundation), World Bank Group’s private financing arm, the International Finance Corporation (IFC), and Consultative Group to Assist the Poor (CGAP)” (Soederberg, 2013, p. 598). In 2010, these principles are presented by the main leaders at Seoul (South Korea) (Soederberg, 2013).

Financial inclusion is defined through different angles by different researchers such as Barot (2017) state that financial inclusion corresponds to the supply of financial services to each

individual in a state. The inclusive system aims to provide wide access to financial services with excluding barriers such as price and others in order to provide benefits for the poor and marginalize groups of society (Demirguc-Kunt & Klapper, 2013). According to Bhanot, Bapat, and Bera (2012) it is the mechanism of enabling access to financial services (Like deposits, investing, remittance, and risk management) and of offering affordable, timely, and sufficient loans or credits to disadvantage groups of society. Around the globe, every state tries to improve their banking structure and even find better measurement approaches in order to boost banking system. The main problem is the access towards the poor class as majority of them can't afford the using cost (Akhtar, 2007; Atkinson & Messy, 2013). Financial inclusive purpose enter in order to make the affordable accessing cost to the poor class of every state (Damodaran, 2013). Sarma (2008) defined inclusion as; "The process that ensure ease of access, usage and availability to formal financial system for all members of an economy". Mialou, Amidzic, and Massara (2017) described financial inclusion as; "It is an economic state where individuals and firms are not denied access to basic financial services".

This concept of inclusion doesn't meant to be indicate that everyone must have to make use of supply and even service providers should ignore the associate cost and risk while aim to offer these services. In consideration of unregulated entries, both voluntary exclusion and unfavorable risk return factors can prevent the residence or small businesses from using one or more of provided services (Akhtar, 2007). Aside of the policy interference it should focus on marketing proposals that can be directed at mitigating industry failures and removing market obstacles to access wide variety of such financial services (Demirguc-kunt et al., 2008).

Objective of financial inclusion is to provide financial contribution to the state's economy and to reduce poverty. Financial inclusion has its impact even to the policy objectives where it is evolved through three stages as; *"first, fostering state-led industrial and agricultural development through direct credit; Second, market-led development through liberalization and deregulation; and third, institution building that aims at balancing market and government failures"* (Hannig and Jansen, 2010, p. 259). The most basic problem is the lack of awareness and understanding of financial inclusion by the target audience and main reason behind this is the lack of understanding of the market system approaches. It will help providers to clarify their focus of targets and then

accordingly develop the marketing communication strategies to build financial inclusive environment (Burjorjee & Scola, 2015).

The importance of inclusive system is to link it with government and policy matter, where it will reflect its importance to them as; “It encourages, first and foremost, the effective distribution of financial services that even help poor to get needed fund on cheaper bases than through informal outlets. Secondly, such access can improve the lives of vulnerable and, lastly, an equitable financial sector can help minimize rise of unregulated sources of financing (such as moneylenders, which offer more costly finance than formal financial institutions)” (Sarma, 2010, p. 2). Therefore an equitable financial structure helps to increase productivity by offering stable investment and saving options, and by promoting a whole spectrum of financial services (Hassan et al., 2020).

Series of research have highlighted its importance to provide benefits to firms and individuals such as; promoting access to saving instruments had reflected increase by individuals (Ashraf, Karlan, & Yin, 2006), its effect on improving consumption patterns and projecting towards Productive/ constructive investments (Dupas & Robinson, 2013). Issue of accessing such financial services is one of the dominant problem and it had been shown proper link with the increasing poverty and promoting inequalities (Beck et al., 2007). Hence concerning access issue is because of demand side constraints or from supply side is always debatable topic. Collins, Morduch, Rutherford, and Ruthven (2009) conducted study which show that the poorest of poor highlighting the demand for financial services. Thus literature indicates that financial inclusion play very important role in improving lives of poor, enhancing the growth of firms and promote new entries along with development and innovations.

According to Demgircuc-Kunt, Klapper, and Singer (2017) the high level of exclusion or absence of financial inclusion will force poor people to base on their savings in order to open their own small businesses and to manage various responsibilities of lives such as education, marriage, and purchases of assets. This kind of prevailing behavior lead to constant income inequities and even affect speed of economic growth. According to Martinez (2011) for stimulation of nation’s economic growth it is necessary to provide access to system of finance through effective policy created by government and policy makers. If this service is available and even affordable to clients then will provide boost to the economic growth by increasing the output level. For country’s

inclusive growth there must be a platform for each segment of earner (high, medium, and low) to integrate well into financial system.

### **2.1.1 Trends of Financial Inclusion across Asian Countries:**

If we focus on the trends of financial inclusion it show uneven use and progress around the globe from the time of its introduction for operation in number of countries. The prominent changes occurred within Asia as result of series of policies reforms along with the market friendly approaches (Hannig & Jensen, 2010). After extended period of accentuating inclination towards finance is dominantly done by Indonesia and India. They bring 25 percent of household individuals to use semiformal / formal financial services. Before this period these household individuals spend their lives on basis of utilizing just \$2 per day and now representing 40 to 50 percent of population using these services (Fernando, 2009; Hannig & Jansen, 2010). Further in India, poor class has access to the credit just by 7 percent in 2004 which was increased by 20 to 25 percent by the end of 2009 because of addition of almost 9.9 million clients to microfinance institutions. For Vietnam it entered almost 2.1 million microfinance client and for Bangladesh almost 4 to 6 million microcredit clients were entered from time period of 2006 to 2010. The increased access of these new microcredit clients in Bangladesh help the financial service providers to reach 55 percent of poor and this shift even increased the access towards saving. For concerning mobile banking aspect then Philippines had shown increase by 4 million new clients from same time period of 2006 to 2010 (Hannig and Jansen, 2010).

For analyzing poor segment of Asian sub-region it reflect somewhat clear picture of penetration of formal financial system as; “India have extended the range of accounts to 28 million but poor segment of this nation has very little access to these services. The main reason is ignorance of non-bank institution (Non-Governmental Organization NGOs) / public banks, and commercial/ private banks to bring increase in providing access to clients (Hannig & Jensen, 2010, p. 5). The main examples that reflect this trend are described in below figure.

Main Examples	Public or Non-bank entities private	Time period
Bangladesh	Rural Development Board (RDB) with 4.7 million active borrowers.	2007
Pakistan	Post Saving bank with 3.6 million accounts.	2006
India	Post offices with 60.8 million saving accounts.	2007
Thailand	Government savings bank with 36 million accounts.	2006
Sri Lanka	State Banks were used by 72 percent households	2006
Viet Nam	Bank for Agriculture & Rural Development with 10 million farmer clients.	2007
Viet Nam	Bank for Social Policy	2008

*Figure 2.1: Show Trends across Developing Nations.*

**Source: Hannig and Jensen (2010).**

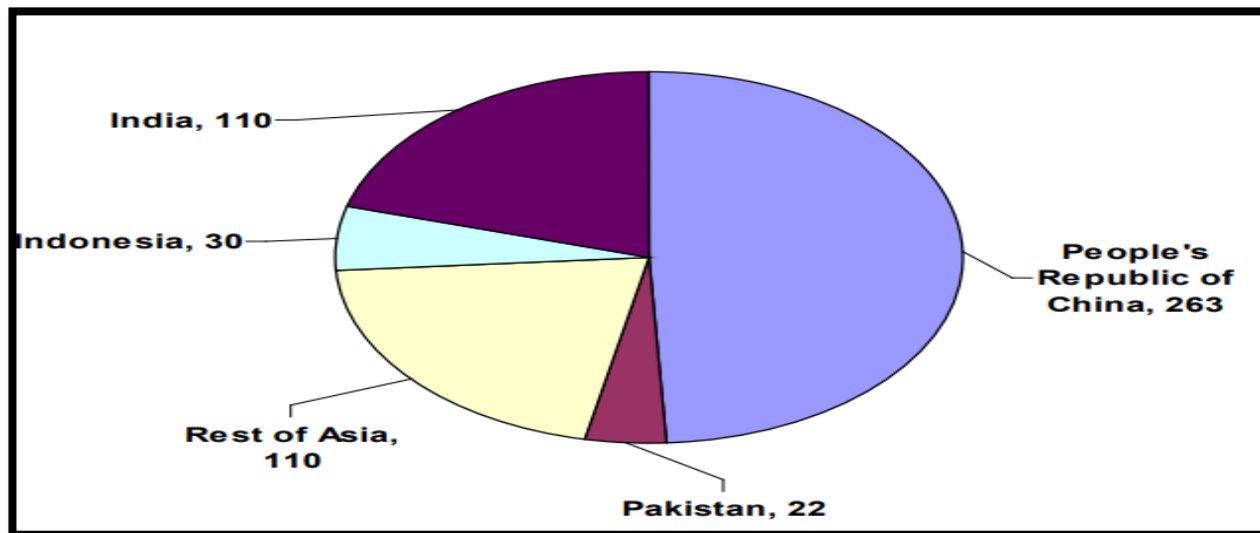
Hannig and Jensen (2010) used different statistics and end up with some calculations of indicating the level of financial inclusion and financial exclusion across the sub-region of Asia as; Like other parts of Developing Asia, Pakistan comes under the bracket of inclusion for less than 30 Percent in 2010, few changes has been made in its progression towards Inclusion, will be discuss later in the report.

Level of financial inclusion	Countries
High: >50	Thailand, Malaysia, Sri Lanka, Nepal, Mongolia
Intermediate: 30–49	India, People’s Republic of China, Indonesia, Bangladesh, Viet Nam
Low: <30	Cambodia, Myanmar, Philippines, Papua New Guinea, Pakistan, Lao PDR, Timor-Leste, Solomon Islands, Vanuatu, Samoa, Tuvalu, Kiribati

*Figure 2.2: Level of Financial Inclusion (Adults and Household Percentage in Asia)*

*Note. Taken from ABDI Working Paper (259), by Hannig & Jensen, 2010, p. 6.*





*Figure 2.3: Financial Exclusion within Asia (in millions.)*

*Note. Taken from State of Financial Inclusion in Asia presenting at; AFI Global Policy Reform, by Fernando, 2009, p. 6.*

The dominant countries represent the highest amount of exclusions such as; China with 263 million financially excluded households, India with 110 million, Indonesia with 30 million, Pakistan with 22 million and for rest of other countries counts for 110 million level of exclusion for the period of 2009-2010 (Fernando, 2009). Few prominent changes occurred by different nations like in Africa, Kenya work hard to bring inclusive system in the country for this they introduced Mobile Phone Payment Solutions (MPPS) for the households. After 3 years of its introduction to market the provider of telecommunication the “Safaricom” influence many individuals and reach to over 7.9 million subscribers for starting this shift based transfer scheme. Which ultimately increase the number of users (Morawczynski, Olga & Pickens, 2009; Beauchense, Dorion, Griggs, & Harrison, 2009).

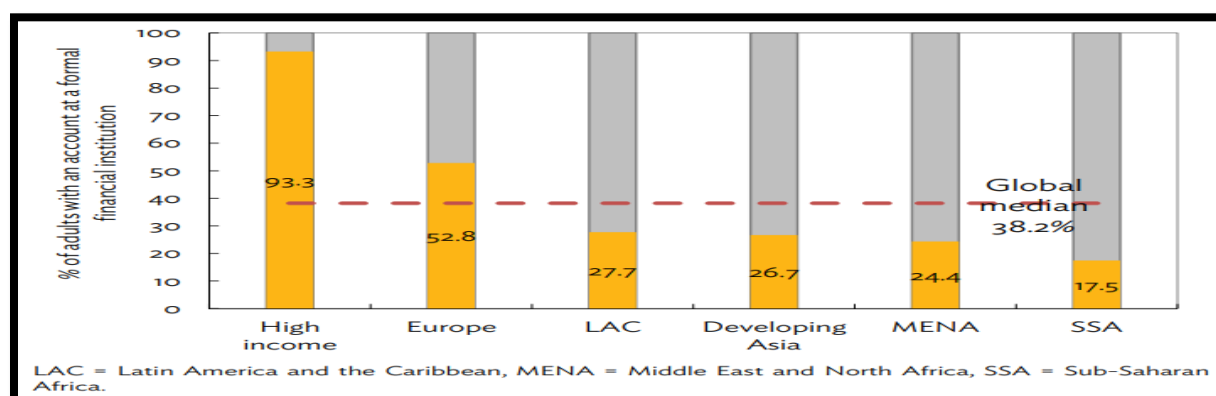
Further in Latin American few changes occurred because of introduction of new policy tools such as in Brazil policymakers achieved access to almost 5,500 districts by allowing banks to use retail agents. This strategy which operates at low cost increase the expansion of inclusive system through entering 12 million new clients in almost 6 years. Next by introducing new regulatory reforms for microfinance help in growing this inclusive behavior such as in Bolivia and Peru it increased growth by new entering of 6 million clients in just 7 years (Unit, 2009). The

Brazilian model was also adopted by Colombia and Peru. In addition to all efforts Latin America also introduced one new approach as Latin Americans allow conditional cash transfer into simplified bank accounts as a way to connect beneficiaries to formal finance while simultaneously lowering delivery costs to Government. Transfer challenges motivate use of agents in Brazil and in Mexico, beneficiaries increased savings and investment, and more than 90 percent of households started to use banking services (Kumar, Nair, Parsons, & Urdapilleta, 2006; Zimmerman & Moury, 2009).

Aina and Oluyomb (2014) conducted a study to analyze the position of inclusion in Nigeria. The results highlight that use and access towards bank accounts is dominantly high among the adults and are more inclined towards saving accounts. While account penetration was near about 1.4 accounts per individual and most popular methods used are non-cash exchange methods (ATM/Debit card) and online payments (Hassan et al., 2020). “From total population which use financial services 59.58 percent found to use bank accounts specifically for saving purpose, 32.5 percent invested in corporate firms, and 26.5 percent focus on using daily donors/ rotational savings programs. While focusing on the barrier perspective the most projected barrier in Nigeria was found as lack of documentations for purpose of opening accounts” (Aina & Oluyombo, 2014, p. 1). The study conducted by Ayyagari and Beck (2015), proposed that for comparing the economic and financial development in respect of financial inclusion showed high level of variation among Asian economies as less than 27 percent of adults in developing Asia have formal bank account in formal financial institution, and just 33 percent of enterprises report that they have a line of credit or loan from formal financial institute.

In 2011, first global approach that aims to promote and concern the commitment of measuring financial inclusion is introduced by the name of “Maya Declaration” and almost 90 developing and emerging countries endorsed it (Demirguc-Kunt & Klapper, 2015). Then Asian Development Bank (ADB) Economic paper series state that in 2015, “The World Bank, G20 Leaders, and The United Nations Secretary General’s (UNSG) High-Level Panel posted for Development Agenda as; it has been highly recognized and embraced goal to increase access of financial services to reduce income inequality, to boost job creation, and to achieve equitable growth” (Ayyagari & Beck, 2015, p. 1).

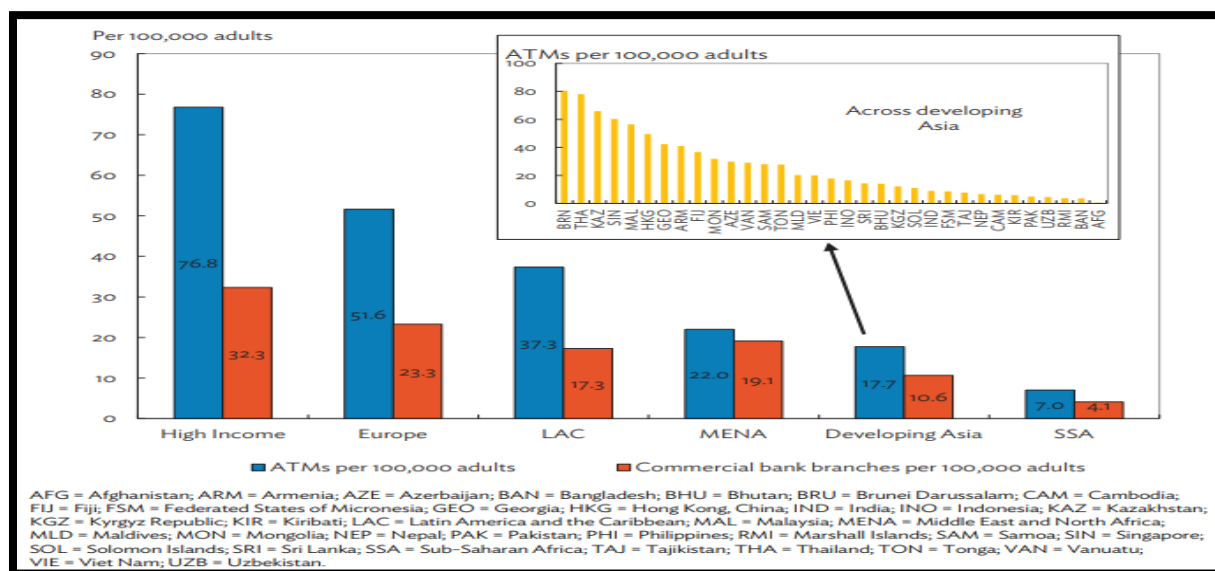
The extent of inclusive financial system in associating with various group of country (poor, women, and rural population) are recognized as excluded from formal financial system among majority of economics across globe. In 2013, Demirguc-Kunt and Klapper report conducted survey done by Global Findex Database (2011) through interviewing “Randomly chosen adults aged 15 and above among 150,000 globally sampled over 148 economies”. Then survey was used to identify the account penetration by the adult in the Asian countries as compare to the global trend. The penetration of account by adults (15 and above) is based on having individual formal account or joint ownership account at formal financial institution. For financial inclusion the formal account consideration was among banks, credit unions, cooperatives, post offices, or at microfinance institutions. The outcome showed that global median is 38.2 percent, and global average is 47.7 percent, which indicate that 50 percent and above adults round the globe have not a single formal account. Further there exist high level of variation between developing economies and high-income adults as; 93.3 percent individuals belonging to high-income umbrella reported having a formal account but median country (Sub-Saharan Africa) reported 17.5 percent of accounts. Universal trend for penetration is displayed by the economies of Singapore and Korea and less than 5 percent of accounts in Kyrgyz Republic, Cambodia, and Tajikistan. Less than 1 percent is viewed in Turkmenistan. Universal trend is displayed by the developed economies. If we take the entire region’s penetration then in Europe 52.8 percent adults, in Latin America and Caribbean (LAC) 27.7 percent, and in Middle East and North Africa (MENA) 22.4 percent, and in Developing Asia 26.7 percent adults having formal account. For Pakistan it count for 9 percent account penetration (Ayyagari and Beck, 2015, pp. 3-5).



**Figure 2.4: Formal Account Penetration Worldwide**

**Note.** Taken from *Asian Development Bank Economics Working Paper Series (449)*, by Ayyagari & Beck, 2015, p. 5.

Asian countries represent high level of variations in study concern of financial inclusion as; starting from peak where Singapore have account penetration above 90 percent and ending at Turkmenistan having less than 1 percent account penetration. If further digest the Asia at regional level it again represents high level of variation in measuring the bank branches and ATMs per 100,000 adults. Here range bracket starts with Brunei, Darussalam, and Thailand to have over 75 per 100,000 adults having bank account to even less than 5 per 100,000 adults having account in Pakistan (PAK), Uzbekistan (UZB), Marshall Islands (RMI), Bangladesh (BAN), and Afghanistan (AFG) (Ayyagari and Beck, 2015).



**Figure 2.5: Bank Branches and ATM per 100,000 Adults**

**Note.** Taken from *Asian Development Bank Economics Working Paper Series (449)*, by Ayyagari & Beck, 2015, p. 6.

For rest of trend among Developing Asia it indicate total of 17.7 percent ATMs and only 10.6 percent of bank accounts. While compare it with globe only Sub-Saharan Africa is down in comparing the bank accounts and ATMs services as having 7.0 percent ATMs and 4.1 percent bank accounts. While high income segments having 76.8 percent ATMs and 32.3 percent bank accounts which is the highest among all. Trend in Latin America and Caribbean is 37.3 percent ATMs and 17.3 percent bank accounts. In Middle East and North America the trend is 22.0 percent ATMs and 19.1 percent bank accounts (Ayyagari and Beck, 2015).

### 2.1.2 Relationship between Financial Inclusion and Poverty:

For having accurate measure of the estimating financial inclusion is not possible because its progress or development vary substantially around the world. Many countries are counted as the initiator for adoption to inclusion and for analyzing the long term patterns of data is not available (Hannig & Jensen, 2010). In 2009, Financial Access of Consultative Group to Assist the Poor (CGAP) use the latest data from conducted survey in 139 countries. The financial regulators focus on adult's accounts within regulated institutions. The findings circulate around the assumption of three bank accounts per banked individual and result indicates that almost 2.6 billion individuals in developing countries are unbanked (Mylenko, 2009).

Next highlight the outcome of conducted survey by World Bank based on its composite access indicator. The deep calculations are used for other micro and macroeconomic evidence but it shows the individuals living on less than just \$2 per day in the country and count for population that lack the access to financial inclusion. *Pakistan* is rated highest for the case of lacking access to the population. Next Bangladesh rate the highest for the individuals living on less than just \$ 2 per day Demirguc-Kunt et al., 2008; Hannig & Jensen, 2010; Mylenko, 2009).

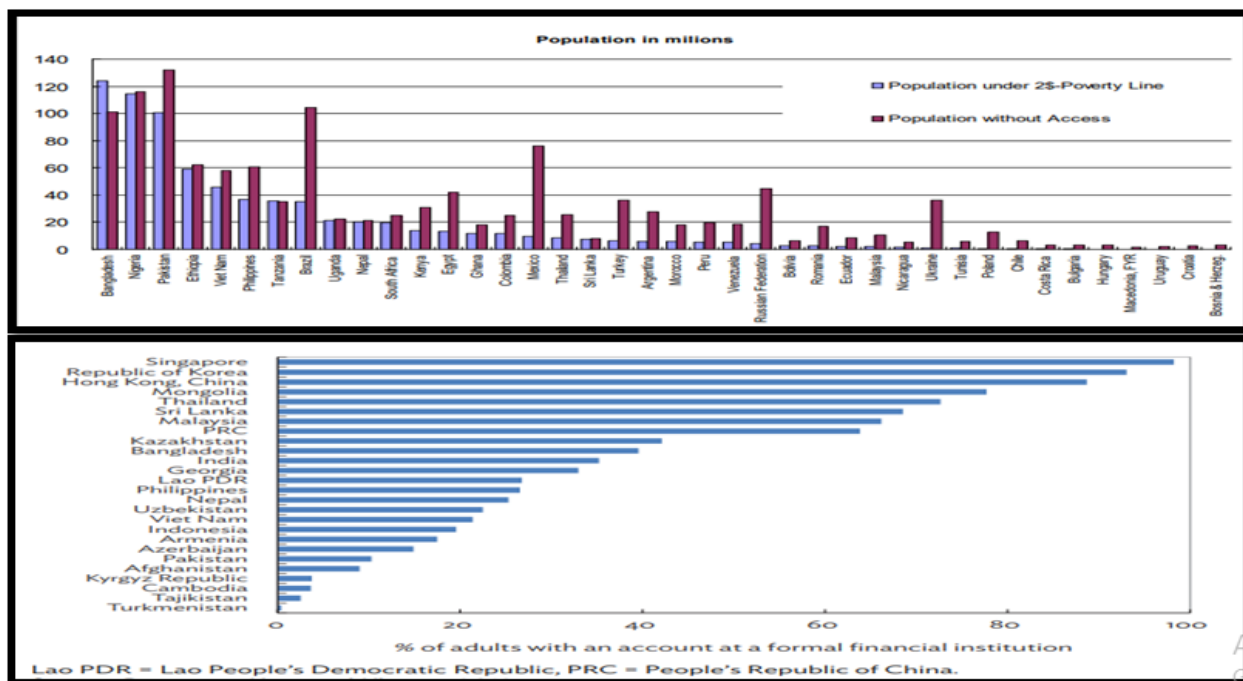


Figure 2.6: Financial Exclusion and Poverty (in absolute numbers)

Note. Taken from *Asian Development Bank Working Paper (259)*, by Hannig & Jansen, 2010, p. 9.

The global trend for increase in formal bank accounts for adult show significant changes during last 10 years such as total reported percentage for having bank accounts in 2011 is approximately 51 percent that rose to 62 percent in 2014, and in 2017 it reached to 69 percent. Aside from developed economies the trend around developing nations is not uniform but only few developing nations prolonged with almost same level of account ownerships from 2011 to 2017 that include Malaysia, Brazil, South Africa, and China. In these economies the already prevailing status of inclusion is about approximately more than 70 percent. In Bangladesh increase occur from 23 percent in 2011 to 50 percent in 2017, In Ethiopia 18 percent increase occur since 2014, In Indonesia increase occur from 20 percent in 2011 to 49 percent in 2017, and In Pakistan increase occur by 10 percent as in 2011 the account ownership was 10 percent which is increase to 20 percent by 2017 (Demirguc-Kunt et al., 2018).

Most significant change took place in India where the account ownership is increase more than its double amount since 2011 because of policy implementation by the Government to increase ownership through use of biometric identification cards in 2014. This policy benefited individuals who were traditionally considered excluded as more than 30 percent of women, 40 percent of the poorest adults, and 60 percent of the wealthiest individuals inclined towards financial inclusion services (Demirguc-Kunt et al., 2018).

## **2.2 State of Financial Inclusion in Pakistan:**

During the starting period of 1990s, number of reforms have been covered in the financial system of Pakistan but still it consists of handful amount of dominate nationalized banks. Which were suffered by poor performance system and low quality of assets (Ishaq, Karim, Zaheer, & Ahmed, 2016). By end of 2013 the financial sector composed of “*Total 38 commercial banks, regulated Microfinance banks (MFBs) were 10, and many unregulated microfinance institutions (MFIs). Other includes 46 nonbank finance corporations (NBFCs), 50 insurance companies (40 non-life insurers, 9 life insurers and 1 non-life reinsurer), and 3 stock exchange commissions*” (ZTBL, 2017, p. 7). Microfinance banks and other banks have focused on even branchless banking criteria in associations with Mobile Network Operators (MNOs) (Mustafa, 2015). Hence currently 85% of banking sectors are owned by private sector and presents near about 90% of rest of this sector’s financial assets (ZTBL, 2017). From beginning Pakistan have focused on bringing

inclusive environment by guideline through associating with the state bank of country (SBP) (Akhtar, 2007; Shamshad, 2008).

The period before worse recession 2000 to 2007 highlights the sustainable economic growth in Pakistan. This time period was characterized by development and transformation in banking sector. As it is supported by focusing on market oriented strategies along bearing attentions to restructuring and privatization. These changes reflect in reducing the level of poverty down to 24% (10% by incidence) and increasing per capita income of households to \$925 (double the amount \$462.5) (Akhtar, 2007). Beside these developments in financial system problem of less awareness among all the segments exists. This is not the only problem of Pakistan but rest of other countries used to adopt different patterns in order to solve the issue of low inclusions such as they focus on using affirmative perspective along with explicit policies. Which help them to balance different deficiencies of this system on one side and try to satisfy clients by exchanging through net worth of concern assets on other side (Atkinson & Messy, 2013).

The financial inclusion strategy is formed base on certain objectives to achieve are; “The effect of changes in financial sector on deeper access to finance, Second objective is to check the intensity and nature of existing exclusion and third main objective is to focus on financial development and social sustainable mechanism of credit delivery that focus on excluded regions among Pakistani population” (Akhtar, 2007, p. 1). These objectives were made by the state bank in considering supportive role of Government, and private sector. Further the partnership with development sectors are also considered that will help to provide access to information related to the regions of operations (ZTBL, 2017).

Beside series of changes has been made in order to increase the level of financial inclusion but still it remained to very low level in Pakistan such as in 2014, from rest of entire population only 10.3% individuals had account with formal institutions which is much below then average of rest of lower- middle income nations that is 41.4 percent and even from average income of South Asian countries that is 33 percent (Fantom & Serajuddin, 2016). Further 56 percent adults are not using both the formal and informal sources, while 36 percent focus on saving from which only 4 percent use formal financial institutions, and for borrowing aspect 1/3 percent of adults used to borrow from which just 3 percent use the formal sources (Gattoo & Akhtar, 2015).

During time period of 2009-2014 credit given to private sector is reduced from 22 percent to 14.7 percent, and for Small Medium Enterprises (SMEs) it declined from 16 percent of lending through banks in 2008 to 7 percent in 2014. The amount also declined for the aspects of housing loans as from total of 180 million population only 76,000 individuals borrow from different banks. Further due to increase in government borrowing leads to slow economic growth, causing increase in investment of government securities by banks of almost 120 percent of total credit to private sector. Therefore private sector received only 40 percent and supply is weighted more towards big enterprises that merely focus on 0.4 percent borrowing through banks. Which represent 65 percent of entire borrowing through banks. (Gattoo & Akhtar, 2015; SBP, 2015; ZTBL, 2017).

A part from prevailing big issues there exist number of problems while operating towards different market segments and interlink with different stakeholders (SBP, 2015). State Bank of Pakistan (SBP) had putted a lot of efforts to make the financial inclusive strategy successful in Pakistan but this market environment contains a lot of issues outside side the SBP's regulatory mandate like; *"draft bills as secured transactions, insolvency (financial distress for paying bills), deposit insurance, and credit bureaus"* (ZTBL, 2017, p. 10). These issues are prevailed for long period of time that leads to create weaker interactions and commitments among government and private sectors. Further weakness in judicial frameworks along with imperfections within infrastructure of basic financial sector causes issues for lending and borrowing credit to different segments especially for poor (Zulfiqar, Chaudhary, & Aslam, 2016). One of the most important problem or gap is the interaction between the clients and microfinance institutions (MFIs) as these institutions focus over upper end business clients and retail marketers which is require to be treated by commercial banks. Service providers associate to MFIs have not even adopted require skills and techniques to tackle other segments equally (ZTBL, 2017). Hence there exits the big "Missing Middle" that need to be served. From client's side the lack of financial literacy and awareness even contributed a lot to this missing middle and limit the demand to avail such services and products.

In Pakistan, National Financial Inclusion Strategy (NFIS) has formed that focus on the vision as; *"The framework or a road map for priority actions that focus on addressing different constraints and also significantly increasing access to, and usage of quality financial services"* (ZTBL, 2017, p. 11). This national level strategy involves the collaboration and formal confabulation of Security and Exchange Commission of Pakistan (SECP) and Ministry of Finance



(MoF). This strategy is formed for time period of 2015 to 2020 based on vision 2025 given by Government of Pakistan. The vision focus on promoting financial inclusive environment along with increasing access to credits for Small Medium Enterprises (SMEs) and also requiring the engagements of both public and private parties (SBP, 2015). The main reason behind this implementation is the minimum access to these services especially for the rural areas, also for women who even don't have access to basic services and for small firms (Zulfiqar et al., 2016). Hence this strategy provide access to diversified services such as; "ATMs, bank branches, POS, bank agents, mobile money agents, and for remote areas provide access through internet and mobile phones".

The State Bank of Pakistan (SBP) focus on this strategy along with support of the World Bank through already existing partnership program. The Central bank also introduced the National Telecom Policy for resolving emerging problems and creating opportunities for non-telecom providers to develop and join market. In order to extent the availability or increase supply for financial services through telecom platform, Pakistan Telecommunication Authority (PTA) provide licenses to the Third Party Service Providers (TPSP) (ZTBL, 2017).

At the end of 2017, SBP launched account with name Asaan Remittance Account which just focus on signal page form require most basic information of users. It aims to focus on person to person transfer of home remittance. It allow certain limitations such as; maximum balance the users kept as credit is up to PKR 2 million or \$17,200 and for fund transferring and cash withdrawal limit per day is for PKR 50,000 or \$430. Pakistan rank even limited for accessing and transferring through mobile channels, for this SBP further focus on opening Asaan Mobile Account Scheme (AMAS). Which provide transferring from Over the Counter (OTC) to mobile wallets through mobile accounts while using the Unstructured Supplementary Service Data (USSD) code (SBP, 2015). The report generated by Global System for Mobile Communication (GSMC) in 2016, Pakistan is characterized for having poor infrastructure, issue of accessibility, minimum consumer's concerns for readiness and content as compared to its neighboring countries. For resolving this issue SBP in 2017 launched project for improving infrastructure and penetration of financial inclusion. For this project \$ 130 million is invested to increase access to digital payments and even improving credit access for SMEs (Lewis, Villasenor, & West, 2017; ZTBL, 2017).

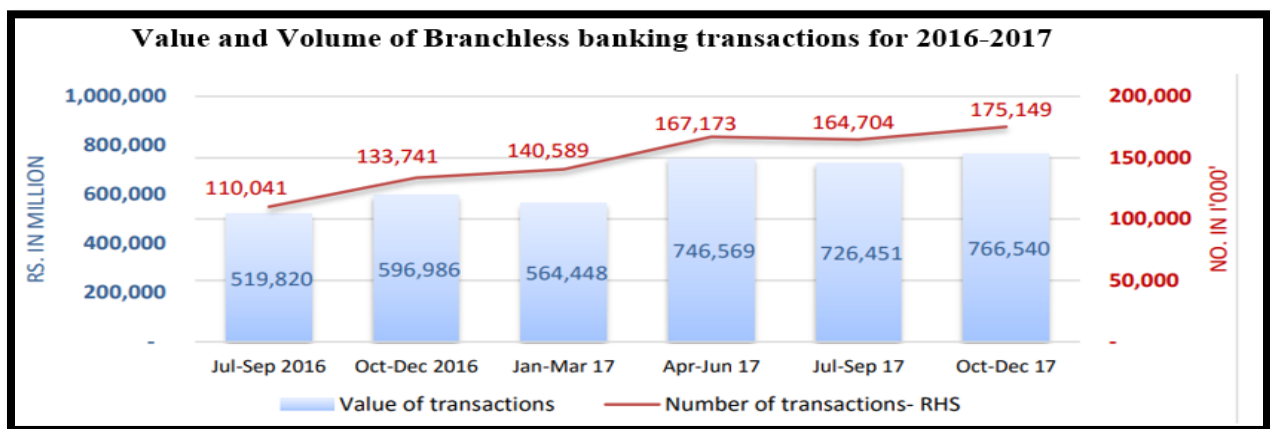
Other stated problems include the issue of women economic participation as they lack access to physical capital ownership because of the prevailing social norms and customs directly eliminate majority of women's participation in promoting state of financial inclusion (Zulfiqar et al., 2016). Thus strategic implementation is focusing more on digitalizing the platforms in order to changing behaviors gradually (Rasheed, Siddiqui, Mahmood, & Khan, 2019). Initially the Post money order service is digitized by partnership of two main institutions of Pakistan the Karandaaz Pakistan and The Pakistan Post office. Next Master Card is associating with the NADRA technology that aim to facilitate electronic transferring through using ID card number. Further National Bank of Pakistan (NBP) and Karandaaz make partnership in order to increase access and use for Digital Financing Services (DFS) by using a management platform for interaction as Application Programming Interface (API) (Lewis et al., 2017; ZTBL, 2017). These implementations help to increase access and conduction towards financial transactions, digital access enable the transferring and receiving between Government to Person (G2P) and Person to Government (P2G), and also for sending and receiving remittances. Through these implementations real gains occur during this time period as; According to the five year annual survey of Financial Inclusion Insight (FII) the use of financial services by adults increase from 9 percent in 2014 to 14 percent in 2017 (which include the growth in the mobile money from 9 percent in 2016 to 13 percent in 2017, in 2016 less than 1 percent of adults are the registered users of mobile money that increased to 4 percent in 2017, in 2015 only 7 percent of adults are registered for full service bank account increase to 9 percent in 2016 and to 11 percent in 2017, and for Non-Bank Financial Institution (NBFI) 0.8 percent adults comes under umbrella of having registered accounts in 2017) (ZTBL, 2017). Pakistan has 86 % regulatory environment and 83 percent capability level but only 36 percent adoption towards financial inclusion (Lewis et al., 2017).

In terms of availing financial services women lack behind men in Pakistan as; in concerning gap between use of mobile phone is 13 percent (84 percent men compared to 71 percent women), for SIM card ownership concern men have 78 percent double than the women as 39 percent, 29.9 million men had branchless banking accounts while only 7.3 million women had such account, and during the last quarter of 2017, the highest registration for female has done by the Punjab province where 466,273 new accounts are opened by them. Comparison for individual province level is as; Sindh had 18.7 percent female accounts and 81.3 percent male, Punjab had

21.7 percent female and 78.3 percent male, and for Kashmir 18.4 percent female and 81.6 percent male formal bank accounts (SBP, 2017).

Next to gender gap the level of active users and advance users are also reported during 2017 as; Active users increased from 8 percent to 13 percent from 2016 to 2017 while advance users increased by 3 percent from 7 percent to 10 percent during that same period. Advance users focus more towards services such as bill payments, wages concerns, savings, and for availing government benefits instead of just focusing over the account management and transferring. Therefore total of 10 million adults come under this umbrella while 81 percent (8 million) of them focus on saving money by using different services (ZTBL, 2017).

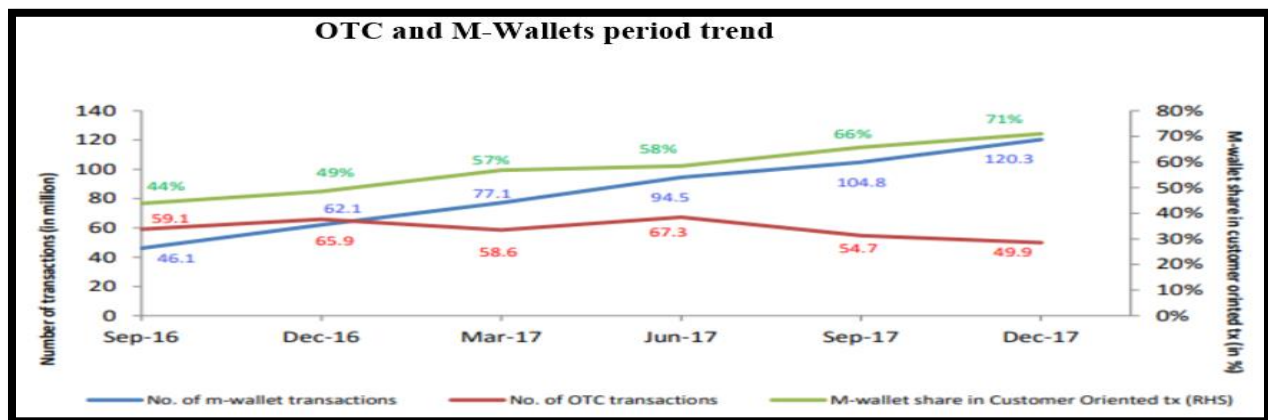
Another innovation occurred as result of approval of Branchless Banking Regulation that allowed more focus on using mobile phones for communication and closing the distance in order to reach customers easily by banks and MFBs. In 2008, SBP focus on business models based on branchless banking approach. It promote the steady growth for both value and volume transactions in Pakistan through this platform (Ahmed, Afzal, & Sumair, 2017).



**Figure 2.6: Value and Volume of Branches Banking Transactions for 2016-2017**  
*Note. Taken from Quarterly Branchless Banking Newsletter, State Bank of Pakistan, by Ahmed, Afzal, & Sumair, 2017, p. 1.*

Further branchless banking transactions are distributed into two types, one is the agent related BB transactions and other is Customer oriented BB transactions. Customer oriented transaction is further subdivided into two types as Mobile- Wallet transactions (involves cash withdrawals and deposit, mobile top-ups, and fund transfers) and Over the Counter (OTC) (involves mobile top-ups, funds transferring through CNIC, Social welfare and bill payments). The

increase in volume and value through using easy platforms are also indicated as just 7 percent of Pakistan adults were using mobile money (through their own or through other accounts), 4 percent have registered accounts in this segment and only 120 million SIM card holders. To address this issue industry along with the SBP implementation introduced Money Wallets aim at providing an easy and convenient platform for various transactions. This strategy brings very positive increase in the adoption towards this platform as it deal by crossing 70 percent increase till end of 2017, increased by 57 percent compared to just 13 percent during start of 2015. The total increase per service is concluded as; mobile top-ups by 98 percent, wallet to wallet transfer by 96 percent, utility bill payments by 76 percent, and pension payment by M-wallets platforms increased to 74 percent. Next the e-wallets also bring remarkable change for bulk payments and transfer (like G2P & P2G), cash withdrawals and deposits (SBP, 2017).



**Figure 2.7: Trends for Over the Counter and Mobile- Wallet transactions**

**Note. Taken from Quarterly Branchless Banking Newsletter, State Bank of Pakistan, by Ahmed, Afzal, & Sumair, 2017, p. 4.**

Agent banking and Branchless Banking entered the market in order to minimize the concerns of customers related to issues of security, privacy, and trust (Kim & Prabhakar, 2000; Malaquias & Hwang, 2016). Trust has been discovered to have an important role in the acceptance and adoption of new technologies, especially in the early phase of their implementation (Afshan & Sharif, 2016). Customers' loyalty is said to be influenced by their level of trust (Muasya & Keronga, 2015; Zahid, Jehangir, & Shahzad, 2012). Next problem of E-Readiness has weakened BB performance rate of adoption in Pakistan (Zahid, Rahman, Makki, Jehang, & Rehman, 2017).

Adoption and usage by such platforms are hampered by various dangers and vulnerabilities such as data sharing and threatening, BB's security and privacy from wrongdoers have a negative impact on consumer's attitudes and responses to BB's market adoption (Cobourne, Mayes, & Markantonakis, 2013). Agents who provide services to the targets are not properly trained. They are completely uninformed of the latest information, rules and regulations, circulars and about regulatory norms related to prudential regulations, Know Your Customers (KYC), and for Anti Money Laundering (AML) (Zahid et al., 2017).

Hassan et al. (2020) study the level of financial inclusion in Quetta, by analyzing four dimensions of inclusion as; "Access, Awareness, and Utilization of Financial Services, and Financial Resilience". In order to have clear idea related to the barriers that forces people to not avail such services and to identify level of financial exclusion in Quetta. Further factors are divided on basis of involuntary and voluntary cause behind this behavior. By focusing on the Global Findex Data set (2015) structured questionnaire (Likert scale) is used to measure differ responses of individuals related to four dimensions of study. It aimed to identify the impact of education, income, employee's behavior at bank, bank charges, and religious issues towards use of financial services (Hassan et al., 2020). The result of this research indicate that the main reasons for not using financial services is because of involuntary self-exclusion and the most high rated responses come for "Low education (64.8%), Language issue (63.9%) , and issue of bank availability (60.8%)" in Quetta (Pakistan). The conducted survey include majority of educated adults but here the problem is for the education of financial understanding. Which highlight education of people don't link to the financial exclusion in Quetta. Instead individuals have issue in understanding the financial terminologies that further indicate the issue of financial literacy. Second is the issue of communication barrier for understanding language as people of entire Baluchistan compose of different diversified group of cultures those speak different languages like Pashtu, Hazargi, Bruhi, and Baluchi. Therefore they even have issue to avail services provided by the banks in Urdu language because this is not their native language. Third issue reported is the distance concern although numbers of bank branches are available there but still some groups of society have to walk long (1-2 km) in order to avail financial services (Hassan et al., 2020).

<b>Reasons</b>	<b>%</b>
Low Education	64.8
Not known about Banking/EasyPaisa facility	52.7
Strict rules and regulations by Bank/EasyPaisa shop	35.1
Complicated Banking System	33.3
Because of low income and saving	25.8
Unsuitable Banking Product and services	35.1
Non-availability of Bank branches/easy paisa shop	60.8
Low financial Education	40.7
High transaction cost	43.5
Timing of bank branches/easy paisa shop	55.5
Language Problems	63.9
Religious reasons (Islamic rules and regulations)	51.8
Someone else in the family has an account	26.8
No need for financial services from financial institutions	25.9

**Figure 2.8: Reasons for not having Banks Accounts in Quetta Pakistan**

**Note. Taken from Sustainable Development through Financial Inclusion, by Hassan et al., 2020, p. 697.**

In addition to involuntary exclusion there exist the level of voluntary self-exclusion. The high rate responses for own choice of not availing services is for religion concern as 51.8%. Majority of Quetta people belief that having profit without any risk in Islam is forbidden because such profit is recognized as the interest operating system of banks (Hassan et al., 2020). The issue of associating all family members to operating on single person per family account is also indicated by 26.84% respondents and 25.9% indicate that they use informal ways to operate their financial expenses and savings. Hence they don't need accounts with the formal financial institutions (Hassan et al., 2020). Among rest the most cited cause for not having accounts is due to lack of money as 59% adults in 2014 and 66.66% adults in 2018 (Demirguc-kunt et al., 2018; Demirguc-Kunt, Klapper & Oudheusden, 2015). Further in 2012, lack of having money was highly reported (80%) by adults in Africa for not using financial services (Demirguc-Kunt & Klapper, 2015). In Nigeria, the most prominent barrier was the lack of required documentation for having bank accounts (Aino & Oluyombo, 2014). While for concerning issue of religion acceptance for using such services in majority of developing nations which mostly count for Muslim countries contributed as 5% in 2014 to 6% in 2018. This trend is also evident from study of barriers and

access to such services in Quetta which counts for 51.8% respondents who not using financial services because of religion issue (Hassan et al., 2020).

The factors that bring behavior of individuals towards using formal financial services counts for having enough income, education, and even financial awareness through different routes and understanding of Self-Help-Groups (SHGs) (Bhanot et al., 2012). Currently people are aware with basic terms like banks and Easy Paisa shops but not with term of financial inclusion and other financial terminologies. Consequently spreading the knowledge and information to the target audience is required everywhere around the developing nations (Hassan et al., 2020).

Hassan et al. (2020) further conducted study to find the extent of financial inclusion in Quetta. According to this recent Study it indicate that banks are continuously putting efforts to improve the state of awareness among this audience and many services are prominently known by the customers as; “ATM Automatic Teller Machine (46.4%), Cheque Book (38.3%), Depositing or Withdrawing Cash (28.3%), Easy Paisa (25.4%), Credit Cards (26.8%), Debit Cards (19.2%), Savings (17.5%), Mobile Banking (15.8%), and Internet Banking (15.1%)” (p. 698). But main issue is that awareness among the adult audience is not just enough to bring inclusion at higher levels, which requires active involvements of them by using such services.

In Pakistan mostly the financial services are promoted by the banking sectors as 90% of financial associated assets are dominated by the banking sectors (SBP, 2015). For promoting the awareness banking sectors plays a very important role. If we associate it with the effort made by our neighbor (India) to promote the “No-frills accounts” through channelizing it from commercial banks. The purpose was to bring increase in level of inclusion but it didn’t indicate much increase like 23% adults use such accounts in Indore and very few opened at Gulbarga (Sharma, 2014). This shows that by having bank accounts can promote or boost the level of financial inclusion is not positive indicator of increasing such behavior. Similarly has shown in Quetta (Pakistan).

Walle, Secheth, and Khan (2017) analyze the extent of financial inclusion in Pakistan and results show that the only basic banking services are utilize by the adults in Pakistan and increased occur as from 6 % to 31% and then to 37% during time period of 2015 and 2016. Further 43% of entire population use the banking service for bill payments, for wages 18% use, and for loans and insurance purpose only 1% of entire population use this services due to religion and cultural objections towards not availing interest base operating system (Hassan et al., 2020). After

discussing the awareness factor the factor of utilization gives not satisfactory responses from Quetta audience as there exists a lot of difference between the level of awareness and utilization of such services as; “ ATM Automatic Teller Machine (46.4%) to using (40.7%), Cheque Book (38.3%) to using (23.4%), Depositing or Withdrawing Cash (28.3%) to using (23.1%), Easy Paisa (25.4%) to using (11.7%), Credit Cards (26.8%) to using (11%), Debit Cards (19.2%) to using at (18.2%), Savings (17.5%) to using (11.7%), Mobile Banking (15.8%) to using (11.3%), and Internet Banking (15.1%) to using at (10.7%)”.

Services	Level of Awareness (%)					Level of utilization (%)					Total
	Not aware	Poorly aware	Fairly aware	Aware	Very aware	Never	Occasionally	Considerably	Almost always	Always	
Savings	13.4	16.5	19.6	33	17.5	41.2	15.1	21.6	10.3	11.7	100
Loans	19.9	21	18.2	25.4	15.5	69.8	10.3	14.4	3.1	2.4	100
Internet Banking	24.1	20.6	17.2	23	15.1	54.6	12.7	12	10	10.7	100
Mobile Banking	23.4	19.2	18.9	22.7	15.8	55	10.7	12.4	10.7	11.3	100
Credit cards	17.9	10.3	16.5	28.5	26.8	50.5	8.6	11.3	18.6	11	100
Debit cards	24.4	12	11.7	32.6	19.2	43	9.3	10.7	18.9	18.2	100
Mortgage	40.2	21	20.6	13.1	5.2	75.5	12.1	6.9	3.8	1.7	100
Depositing/Withdrawing Cash	9	10.3	20	32.4	28.3	26.9	7.2	18.6	24.1	23.1	100
Cheque Book	5.5	6.6	17.6	32.1	38.3	23.7	9.6	23	20.3	23.4	100
Overdraft	40.2	14.8	20.6	17.5	6.9	66.6	11.7	13.1	5.9	2.8	100
Insurance	22.3	15.8	22	25.1	14.8	69	9.3	11.4	4.8	5.5	100
Automated Teller Machine (ATM)	5.8	6.2	15.1	26.5	46.4	25.9	4.1	10.7	18.6	40.7	100
EasyPaisa	12	10	17.2	35.4	25.4	38.1	10.3	19.9	19.9	11.7	100

**Figure 2.9: Level of Awareness and Utilization of Financial Services at Quetta Pakistan.**  
**Note. Taken from Sustainable Development through Financial Inclusion, by Hassan et al., 2020, pp. 698-699.**

Reason behind using the ATMs, cash deposit, cheque books, and Easy Paisa service is because of the employment concern (Hassan et al., 2020). Because most of the organization distributed salaries through bank branches and for which it is required to be having bank account. According to World Bank for rest of developing countries 46 percent individuals use bank accounts in order to obtain their incomes from private companies (Demirguc-kunt et al., 2018). This study is focus over providing the difference between level of awareness and utilization among audience having basic education level. Which shows clear difference between both states and opinions are abstracted from general audience. Whereas opinions regards the professionals belonging to this industry are also required.

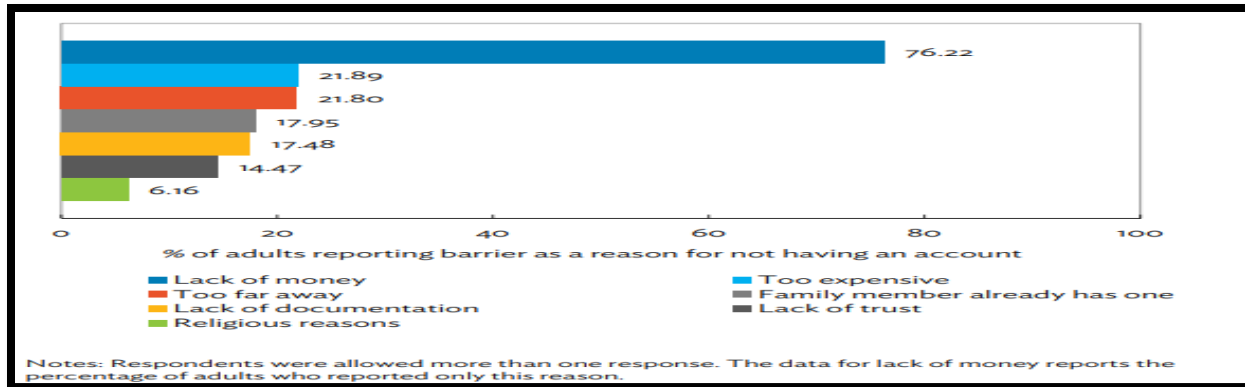


### **2.2.1 Barriers to Financial Inclusion:**

Ayyagari and Beck (2015) discuss the series of barriers associate to household individuals and firms in Developing Asia for aspects of financial inclusion, by using the report analysis given by Demirguc-Kunt and Klapper in 2013, and evaluating data conducted in 2011 by Global Findex Data. Analysis both side constraints the demand side and the supply side. The demand or household side barriers around the world were uneven or irregular patterns of cash flows, low incomes and even lack of financial literacy or understanding. From service provider side the dominate barriers were the distance issues and in remote areas the high transaction and operating cost of availing and using financial services. Survey was conducted within regions of Developing Asia and sample was allowed to multiple response except the one response was for the “Lack of Money”. The non-account holders indicate the few reasons as; *“Lack of money, lack of documentation, lack of trust, too far way, too expensive, religious reasons, and already a family member has an account”*.

The highest percent goes for the factor of lack of money in rest of Sub-regions of developing Asia and this trend shows the uniformity in its spread as indicate above 75 percent. While distance concern for rural population to reach banks (21.89 %) and fix expense of opening and maintaining accounts (21.80 %) are near about the same level of barriers for adults. Although physical access and expense barrier are tried to be overcome through use of Alternate Delivery Channels (ADC) and through inclination towards technological aspects. The mobile banking and finance is introduced into markets to provide the access to services through phone apps (ADB, 2015).

But according to the current studies done through use of Global Findex Data shows that these channels are not frequently used in Developing Asia. The use of internet or wire transfer just highlight by 2.05 percent of respondents while the high income respondents of medium economy indicate 44.8 percent of usage. For medium economies in term of development in Latin America and Caribbean (LAC), Middle East and North America (MENA), and Sub Saharan Africa (SSA) indicate the use below 8 percent. For concerning the adults it count for less than 1.5 percent of using mobile apps to transfer money and to pay bills (ADB, 2015).



**Figure 2.10: Barriers to Financial Inclusion around Developing Asia**

**Note.** Taken from *Asian Development Bank Economics Working Paper Series (449)*, by Ayyagari & Beck, 2015, p. 10.

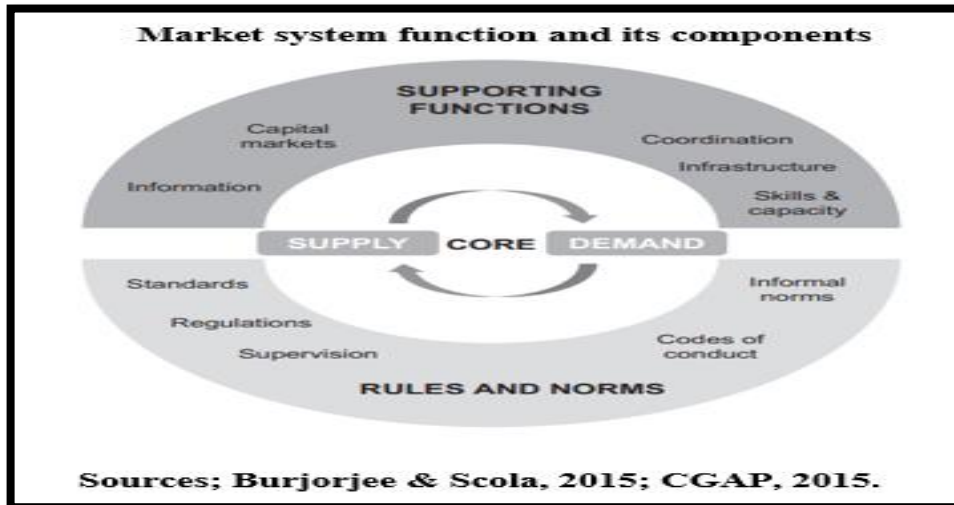
For documentation criteria rules of various banks act as prominent cause of non-account holders as they demand ID cards, Domicile proof, and even other recommended letters. The majority of poor lack the access to have them that’s why they cannot use such services. Next religion aspect is considered by the lowest rating as 6.16 percent. However there exist the positive correlation between the barriers and income. High income will reduce barriers and low will increase (Ayyagari & Beck, 2015).

## **2.2.2 Factors causes low level of awareness towards financial inclusion;**

### **2.2.2.1 Lack of proper Market System Function:**

Since 2006 series of changes have been made in order to increase access to financial services for low income households and poor segments of society by adopting the good practice guidelines that are provided for microfinance funders (Karpowicz, 2014). In 2015, the CGAP (Consultative Group to Assist the Poor) highlighted the importance of such services for households, policy makers, funders, practitioners and even for economies that inclined towards shifting its focus from classic financing approach towards microfinance institutions and finally towards the financial inclusion. Where every individual of society has opportunity to access and avail inclusive services (Burjorjee & Scola, 2015). The microfinance just act as the entry spot for availing many other financial services such as: Small and Medium Enterprises (SME) finance, G2P & P2G payments, “No-Frills” bank accounts, Digital Financial Services (DFS), and so on. All such services help to avail state of universal financial inclusion along with its positive impact over the economic and social development of state (Stein, Goland & Schiff, 2012).

Initially the defaults and deficiencies in institutional capacity in order to deliver financial services had considered the basic congestion in terms of approaching towards poor segment. All attention was then converted to give importance for prioritizing financial and technical assistance to boost up the levels of financial service providers (FSPs) to assist poor (Lahaye, Dashi, Dolke, & Soursourian, 2015). Instead of increasing level of inclusion it even failed to address various constraints such as; it lead by providing little attention towards understanding and knowing client needs, improving market infrastructure, and even implement regulative environment. The institutional capacity focus aimed at developing proper incentives, parameters, and even notable mechanism in order to build diverse, transparent, and innovative financial service markets (Burjorjee & Scola, 2015). By placing aside the placed marketing efforts the background understanding of market system function towards the inclusion is not clear by the service providers, microfinance institutions and banks, government and even by the policy makers. Before introducing any communication strategy to market, the internal marketing system should be developed properly that must be based on the flexible change approach as given by the Consultative group to assist the poor (CGAP) (Burjorjee & Scola, 2015). Initially the dimensions that includes the study of financial inclusion indicators must be defined that lead to build the system function. The market system depend on the supporting functions, and rules and norms of the concern state. Supporting function include “Information, Infrastructure, capital markets, coordination, and Skills and capacity”, next rules include “Standards, Supervision, and regulations”, and norms includes “code of conduct and informal norms”. Entire system operate between core function of interaction and exchange between the demand and supply side of the financial inclusive system (CGAP, 2015).



*Figure 2.11: Market System Function and its Components*

**Note.** A Market System Approach to Financial Inclusion Guidelines for funders, by Burjorjee & Scola, 2015, p. 4.

For positioning the progress of financial inclusion it should be focused on development outcomes such as; “aim to reduce poverty by increasing the welfare of rural families in respected area” or for any economic growth purpose such as; “Job creation by SMEs in respected area of focus”. Marketing effort should aimed to bring change incentives like; “New regulation allow the access or use of services through banking agents” while bringing such change, it will help in boosting behaviors that lead to adaptation towards concern change. It will be highlighted when number of other institutes offer new product focused on the improved regulatory framework (Burjorjee & Scola, 2015, p. 6). The lack of granting local training centers for increasing awareness for concern product development and innovation is the biggest drawback of developing nations including Pakistan. All of these constraints in promoting market system function creates issues for universalizing the concept of financial inclusion (Burjorjee & Scola, 2015; Karpowicz, 2014; Stein et al., 2012).

Next defining boundaries for inclusive market system is not clarified hence it should map out different market functions and relevant actors who act as segment to use and access services instead of clients and providers of it. Further market system function should be flexible enough to bring all required changes even during the process of implementation (Burjorjee & Scola, 2015). Next for diagnosis every aspect of market that count in facilitation must be include in the process

not just the service providers. It must include the organizations, project managers and consultants which will help in smooth running of process such as; project managers using concern system can highlight the adaption towards interventions and provide guide for rest of time whenever process is prevailed in the market. These inventions must include all the barriers such as; “supporting functions, demand and supply side, rules, and for prevailing norms” towards the financial inclusion that will spot the market system with clear picture of implementations (CGAP, 2015).

For system optimization, the system’s facilitation is required where different funders had to play their catalytic role. Which is aimed to provide different incentives and motivate market actors to perform functions effectively. The most important implementation is focused towards strategic partnerships among different actors of financial service providers. Strategic partnerships will help in bringing crowding-in concept which will help to boost the structure of providing financial inclusive services (Burjorjee & Scola, 2015). Currently in Pakistan the concept of strategic partnerships has been taken by various market actors to provide increase in services of inclusion and maintain smooth flow of this exchange process (Mustafa, 2014). Strategic networks help organizations to broader access to market resources, technology, information, and allowing partners to share risks and opportunities among constructed strategic network (Gulati, Nohria, Zaheer, 2000).

Telenor and tameer microfinance bank partnership is a sophisticated example of mobile money operation which is based on splitting concern activities among partners based on their organizational capabilities (Dermish, Kneiding, Leishman, & Mas, 2011). Traditional microfinance banks (MFBs) were unable to achieve require scale. Available commercial banks had attempted to move up financial pyramid by concentrating over upper class and upper middle class, which make it more difficult for poor class to obtain access to finance (Mustafa, 2015). Like Telenor many other members of telco industry take initiative of strategic partnerships but focus of approaching towards poor segments is still far behind the predicted level (Dermish et al., 2011; Mustafa, 2015).

Numbers of microfinance institutes and microfinance bank in Pakistan are focusing on increasing level of inclusion. Next to these institutions the entry of mobile money operators in banking system aimed to increase the public inclusion towards using financial services. The involvement of Telco industry is because this industry has large distribution network which focus

on rest of their customers connecting through customers own secure devices (Qayyum, 2017). This will help them to build the strong relationship for using banking products based on the existing customer relationships. The shift from commercial banks to microfinance institutions to telco industry all aimed to capture the poor and low-income sector of this state (Mustafa, 2015). Mobile phone industry is dominantly accepted by the rest of Pakistani population even in the remote areas. The prominent players of this industry include Tameer/ Telenor microfinance bank (Easypaisa), Mobilink microfinance bank (Jazzcash), and U-microfinance bank (U-paisa), and Warid along with bank Alfalah (MobilePaisa) (Qayyum, 2017; Mustafa, 2014). All focus on bringing inclusive environment by linking it with familiar brands that will easily build trust among the audience but series of issues act as barriers for its smooth operations such as; uniform connectivity issues, technical in assistance, communication issues between service providers and users, focusing over high commission earnings, language barriers, and so on.

#### **2.2.2.2 Other factors:**

In Pakistan financial exclusion is apparent due to various prevailing issues such as; “Due to geographical constraints, lack of enabling environment at provincial level, poor banking behavior and practices, high level of poverty, illiteracy, language barriers, cultural issues, lack of suitability of products, and due to regulatory barriers” (Akhtar, 2007, pp. 3-4).

Large portion of population lives in rural area i.e. total of 67 % lives in remote area where clusters of population are residing in disadvantaged territories such as arid and tribal areas (Akhtar, 2007). Next for lack of enabling environment at provincial level brings difficulties for banks to intervening agriculture credit in provinces. The difficulties occurs due to lack of proper land records and prevailing weak law and order enforcement (Akhtar, 2007; Atkinson & Messy, 2013). Initially Individuals have accessed towards financial services in physical branches located in remote areas. However in most developing nations these branches located in isolated areas are closed due to weak infrastructure, security issues, and less profit (Atkinson & Messy, 2013). Consequently these issues act as barrier for microfinance institutions to increase their level of penetration to those specific areas for which these institutes are formed (Akhtar, 2007).

Although geographical barriers and approaching access is minimized through application of information technology. However, this issue is transfer to the issue of connectivity concern (Atkinson & Messy, 2013). All such communities are financial excluded where electricity is not

available, networks are limited or hardware is in short supply (Akhtar, 2007; Atkinson & Messy, 2013). Hence lack of reliability of connectivity issues (like problems with network disruption or insufficient data security) and offering of services that are incompatible with one and other may also diminish effective supply of services (Atkinson & Messy, 2013).

Banks are not serving large segments of population and even focus over traditional modes of lending that create high level of exclusion (Akhtar, 2007). For using traditional modes it require documentation or collateral aspects from customers or imposing prohibitive transaction costs over them. Which majority of customers are not able to provide them (Akhtar, 2007). Next for personal circumstances like lack of money, no credit history and joblessness make people unable to avail financial services. These issue causes individuals to focus over informal sources of finance that even reduce likelihood of interacting with financial services such as starting own work or buying loans for home (Atkinson & Messy, 2013).

Population usually lacks awareness and understanding of financial products and services due to few prominent barriers such as poverty, illiteracy, cultural, and language concerns (Akhtar, 2007). Research shows strong interaction between financial inclusion, financial literacy and poverty (Atkinson & Messy, 2013; Demirguc-Kunt et al., 2008; Hannig & Jensen, 2010; Raza et al., 2019). Low level of awareness related to different financial inclusion products, knowledge related to fulfilling particular requirements, lack of confidence, attitude and behavior reflect low level of trust (Weak financial consumer protection framework) towards availing financial services create barriers to access (Atkinson & Messy, 2013). Increasing education level, reducing gender discrimination, and generating income opportunities will help in increasing the existing level of financial inclusion. These three components act as important determining factors of financial inclusion (Zulfiqar et al., 2016). Enhancing awareness towards financial inclusion and literacy could drive rich dividends in terms of economic improvement and resultant social impact (Mustafa, 2014). Aside from availing services low level of awareness create problems for individuals in terms of making full use of their existing products (Akhtar, 2007; Atkinson & Messy, 2013). Next existing cultural preferences and religious beliefs have created barriers to avail financial products and services (Atkinson & Messy, 2013; Hassan et al., 2020). Poor language skills leave people isolated from understanding various technologies (Like cash machine or ATM, mobile and internet banking) and availing various services (Atkinson & Messy, 2013).

Few national regulation frameworks limit the ability of service providers to attract new customers and imposing costs that wouldn't be recovered in short term (Atkinson & Messy 2013). Strict regulatory situations that aim to focus over providing documentation proof in order to prevent money laundering issues causes difficulty for poor people who find it difficult to arrange (Akhtar, 2007). Inconsistent rules for Know Your Customer (KYC) and for risk-avoiding implementation also prohibit access in some situations (Adudal & Kalunda, 2012; Atkinson & Messy 2013).

In some economics including Pakistan existing financial market is comparatively weak and lead by few numbers of suppliers. Weak financial market along with other prohibited market factors causes certain providers to exclude some portions of population base on few factors such as; "Preventing access for those with no credit record, charging high fees for basic transactions such as withdrawing money, designing terms and conditions that exclude large proportions of market due to lack of requirement to maintain minimum balance" (Atkinson & Messy 2013, p. 16).

### **2.3 Neuromarketing:**

Numbers of scientists and philosophers try to explain unravel secrete of mind. If consider the viewpoint of Plato, "Who contrasted human spirit/ soul to chariot drawn by two horses, one is the horse of reason and other is the horse of emotion. In world of practice rationality is the concern of more importance over the years hence horse of reason is consider the most important for the practical matters instead of horse of emotions carrying the bags of feelings. Philosophers in economics also focus on the reasoned decision making by individuals recognized as "Economic man." The father of economics (Adam Smith) focus on the rational allocation of resources that will better represent interest of society. Many theorists in field of marketing have accepted the significance of concept of creating values (Cost & benefit analysis). Then the central function of gratifications (verifications for previously established standards). Both concepts of value creation and satisfaction capture the form of "Cognitive economic rationality on the part of consumers." All thoughts and opinions inclined more towards the rational and conscious part of mind. While ignoring the horse of emotion is due lack of measurement access. But now with interconnection of neural science with field of marketing, provide platform to smoothly link two vehicles of Plato's chariot (reason & emotion) and is known as neuromarketing. The reason of its importance is that the future will be more towards marketing science rather than the marketing art (Fugate, 2008, p. 170).



The anecdote starts with the idea of having potential to access brains of individuals through use of brain imaging techniques given by the Harvard Professor Jerry Zaltman, for studying marketing and consumer behaviors in late 90s, (Klinckova, 2016). The study of neural network in marketing link behavioral science and psychology of consumers to neuroscience. In 1991, the stimulation technique was introduced by American physician Paul Lauterbur and British physician Peter Mansfield and name as “Neural Network Marketing” (Semieoglu, 2019).

This new emerging field help to better know and understand the thinking process of consumers more specifically to analyze their emotional responses that will help to increase effectiveness of various commercial activities (Burgos-Campero & Vargas-Hernandez, 2013). Broadly neuromarketing is the combination of neuroscience and marketing. Further neuroscience is “The fusion of various disciplines consolidating electrophysiology, molecular biology, behavioral and cellular biology, neurology, cognitive sciences and cognitive neuropsychology” (Zurawicki, 2010). But for neuromarketing number of philosophers, scientists and psychologists gives different opinion regarding its operations and interactive definitions. Tourtoulou (2013) described as; “It is knowledge about information processing and decision making by individuals and particularly investigates how business should communicate with brain in details” (Klinckova, 2016, p. 53). According to Psychophysiology scientific journal “It is the contribution neuroscientific methods that are formed to understand considerable or predictable human behavior relevant to marketing activities” (Lee et al., 2007, p. 200). Different cultures around globe possess difference medium of communication based on their concern languages but for the language of brain, it maintain its stability for concerning language irrespective of the culture you belong to. This field is related to the study of physiological responses of brain to marketing, and advertising strategies. For measuring effectiveness of these strategies, the resulting brain activity is monitored and measured by using neuroimaging techniques (Lee, et al., 2007).

Predominately it concerns with combine fields such as; “neurology, psychology, sociology and marketing” (Burgos-Campero & Vargas-Hernandez, 2013, p. 518). But in 2002, this interdisciplinary field has been coined by Smidts (Burgos-Campero & Vargas-Hernandez, 2013; Bridger & Lewis, 2005). Few US firms in 2002 used neuromarketing techniques and also providing consulting services for using knowledge and technology concerns in field of cognitive neuroscience (Semieoglu, 2019). Implementation of such studies are observed in near about 1960s

by Herbert Krugman with use of the easiest technique of measuring spontaneous contraction and dilation of eye pupils. It reflects the interest or dislike of individual's response towards subjected effort like for printed advertisements or products (Klinckova, 2016). Further lead by the use of galvanic skin reaction to measure emotional reactions of individuals as result of subjection towards market services. This technique which make it possible to precisely map or track pupil of eye, hence exposing those locations that attract human brain attention was recognized as eye-tracking. Then the study of brain hemisphere (right and left part of human mind) through another techniques encephalography was introduced by Krugman and Fleming in 1970 (Klinckova, 2016).

### **2.3.1 Studies conducted by using neuromarketing:**

In 1975, initial research related to neuromarketing was conducted by Pepsi but was not completed at that time and again in 2003 was reconsidered by Professor Read Montague at Baylor Medial University as "Pepsi Challenge" and is published as "Neuron Neuromakreting Stimulation" (Semieoglu, 2019). Where Pepsi and Coke was on table to measure preferences of consumers towards both products. By words and known intentions people give more preference to Pepsi but after subjecting to neuromarket technique and conduct blind testing the results turn totally different. Coca Cola express  $\frac{3}{4}$  % of its taste better then Pepsi. The study of challenge was then recognized as "Pepsi Paradox." The technique which was used for this study is the subjection towards the brain's VPC (Ventromedial Prefrontal Cortex) (Semieoglu, 2019). Secondly dominate used of approach is by *Lexus*. Where this car industry use the approach of neuroscience and create connection between "The client's heart and driving experience" (Klinckova, 2016). Most successfully was done by *Nokia* through introducing "*Default Nokia tune*" in market. Where this approach help to recognize that hearing and smelling produce much dominant effect then what individuals see (Lindstrom, 2012).

This field allow marketers to study responses of brain to marketing communications and further adjusting messages based on feedback receive with aim of achieving better replies without conscious participation of test subjects (Ghorpade, 2017). Hence help in achieving objective and scientifically measurable, emotional, and cognitive output from consumers (Cuesta, Martinez-Martinez, & Nino, 2018). The evolution of neuroscience take a lot of time to cross its embryonic stage but with its progress it penetrate to number of other fields where it link by associating its scientific impact to faster the understanding and analysis of their concern operations (Morin,

2011). Neuromarketing is among those subfields, which grasp the attention of academics by highlighting the totally new way of revealing brain circuits that are involved in the series of marketing activities such as decision making, selection, and purchases (Morin, 2011). Next to marketing, economics also began to use these techniques and give birth to neuroeconomics as both fields have common interest of operations like exchange process and decision making (Lee et al., 2007). But during beginning of this idea was not that much grasp by marketers, the main reason behind this was the lack of formal training in “cognitive neuroscience.” Second was the acceptance issue from public side for exposing them to such scientific technique that hit their privacy and contributing to rising subjective matter for ethical concerns (Fortunato, Giraldo, Oliveira, 2014). Hence with rise of neuromarketing concept it will bring an end to free will (Marcel, Lacramioara, Loana, & Maria, 2009). In contrast neuromarketing focus over concept that in marketing there is nothing unethical. Further marketers don't force consumer to purchase any product instead they just focus over using different marketing concepts to market their offering. Whereas neuromarket perception is that human mind make consumers to feel or force to purchase product or to avail services (Rehmen et al., 2016).

According to Morin (2011), brain counts for 2% mass of rest of body and using 20% of total energy to perform body functions. Among further divisions 80% work is performed to maintain baseline status by cerebral region which mainly cover the unconscious activities and only 20% energy was used to perform by conscious brain. According to Lee, et al (2007), neuroscientists have found series of other developments such as measuring the *location, frequency and timing* of the neuronal activity in more unprecedented way, but these technological developments have been ignored by marketers to have better knowledge related to their markets.

Bright House and Sales brain are the pioneer firms which used these techniques to enhance their processes of viewing and understanding their consumer's insights, (Semieoglu, 2019). Pepsi was considered among pioneers who implemented this strategy but there are number of other businesses who used this approach like Microsoft, IBM Watson, and Google (Klinckova, 2016). As Microsoft took implementation of eye tracking approach. “This help to uncover and learn about clear patterns and desires of customers for profound interaction. Subsequently they used approach of data mining creating further links for EEG. All efforts aim to provide deeper comprehension (Including sense of happiness or anger and thoughts) and understanding for increasing interactions

with computers”. Next IBM used this approach as; “Computer system used to answer question in a similar language in which the question is asked. In addition it help to predict the customer preferences. It is seen as useful feedback and perspective into what client want and valued” (Klinckova, 2016, p. 54).

### **2.3.2 Reward systems:**

Touhami et al. (2011) analysis the existence of physiological processes through connecting scientific and objective ideas. Reward system placed at the core of midbrain which is essential for existence of life on planet earth. Its activity is attributed to the motivation that is basis to perform basic actions such as searching for food and reproduction towards complex behavior formations towards selecting an item, brand / for an investment. “Reward system is regulated neurobiologically by Dopaminergic networks that comprise ventral striatum, including ventral tegmental area (VTA), amygdala, and nucleus accumbens”. Initially the addictive behaviors such as for consuming cocaine in the past has explain through the addiction by explaining through reward system that stimulates subjective feelings of personal gratifications and leads to favorable emotions. This stimulation through reward systems is also assign to the addictions by people towards few brands, products and services. In nucleus (accumbens) the function of neurons (dopaminergic) have been indicated to significantly boost their actions after subjected to strong rewards such as in above example the self-administration of cocaine. Emotions play very important role as if person is not able to depict emotion then is not able to make fine decisions. Damasio (2018) conducted study through providing empirical evidence that indicate with possessing any dysfunction emotional system or without emotions individuals are not able to make any sensible decision (Damasio & Ros, 2018).

The reward mechanism is something similar to the subjection of stimulus that will predict the effective rewards. Initially the reward system was tested on the animals such as Phillip, Brooke, and fibiger (1975) performed such reward testing on rats and Schultz, Apicella, Scarnati, and Ljungberg (1992) on monkeys. Erk, Spitzer, Wunderlich, Galley, and Walter (2002) conducted studies on measuring the responses of people mainly as subjected to different cars as matter of concerning “Cultural objects and reward circuitry.” In society, possessing cars reflect high degree of contribution to wealth and social domination. The study indicates that sports cars were more

attractive and attention seeking and from scientific perspective it causes more activation in “orbitofrontal cortex, ventral striatum, anterior cingulate and in occipital regions.

It seems to be an intervention strategy that aims to reduce the market friction in terms of removing the barriers for the markets to perform work for improving the underprivileged and poor society. According to Chibba (2009) financial inclusion offers complementary and incremental solutions to tackle poverty, and to promote inclusion development. The main purpose behind these efforts are to draw attention of unbanked population towards the formal financial system. The series of transformations within the financial institutions further recognize the goal of this approach as; these changes and innovations are not just for including the poor and excluded population but even reach to the unbanked individual (UN Capital Development Fund, 2006). Hence banking sector is defined broadly as; “The method of supplying all members of society with range of requested financial services at reasonable price, in the right venue, in the right manner and time, and without any form of discrimination” (Adudal & Kalunda, 2012, p. 95). Thus it reflects that the low level of inclusion will result in bringing the major losses to the concern state’s economy. Sinclair, McHard, Dobbie, Lindsay, and Gillespie (2009) state that “True and rising expenses, often met by those who can least afford them, are brought on by isolation from the financial system” (Adudal & Kalunda, 2012, p. 96).

Majority of developing countries till the period of 1980s focus on channeling the public funds in order to interact with the small enterprises and farmers. Other purpose of this channelizing is to bring all under some sort of regulated landscape. The background information used was based on consideration that poor in the rural areas were not able to afford interest rate of market or even for saving concerns. Such “direct credit programs” for this class was based on providing needed loans at the subsidized rates in order to build capital. For attaining such goals the development bank operates at below market rates for specified groups of targets. Cheap funding public loans (deposit rates) were subjected to the regulatory limits and hindering the mobilization of domestic capital (Demirguc-Kunt et al., 2008).

Although till end of the 1980 there was not any dominant change in trend of reaching to the poor in rural areas and subsidized interest rate further weakened the performance of financial institution. This time period was captured by new approach focusing on the operations of financial institutions for those poor population having lack of access to financial services. Such discussion

change the focus from individual household and firm to institutions level (Hannig & Jansen, 2010). The institution level includes the services concern on sustainable and widespread consideration. Starting experiences are formed in Asian countries like Bangladesh, Bolivia, Indonesia and few other states where the focus was over the rural finance and microfinance described as “banking with the poor”. This viable financial outreach help to give new paradigm known as the “financial system paradigm” (Otero & Rhyne, 1994). Further terminology of “Microcredit” was replaced by “microfinance” and the approach was focused on the implication that target audience (poor) will create economic surplus. Further it will help them to save and even enable them to repay exact or real cost of debt. Variety of financial products were offered through both regulated and unregulated institutions (Hannig & Jansen, 2010).

As with the time formal financial system have passed through series of expansions that bring rapid transformation in the microfinance and various researches along with various conducted empirical evidences demonstrate the “financial systems” aimed to serve poor or low-income individuals stimulate pro-poor growth (Beck, Demirguc-kunt, & Maksimovic, 2004). All matter of focus lies in making the easy access to reach this segment and it’s the only ways to have positive affect on growth and poverty reduction. In simple words it’s not possible for poor segments to accumulate savings and invest in growth oriented or income driving projects. If saving and investing is difficult then definitely building assets to protect themselves from risks are also not possible. All debate comes around the focus of developing financial sector not just for the purpose of measuring the depth of its presence but also to determine breadth of its access, which is projected towards the inclusive inclination within the existing financial systems (Hannig & Jansen, 2010).

People excluded are considered as the separate group which form wider extent of social exclusion. This segment has dominant link with poverty, inequality, and injustice which is much wider phenomenon that is short term concept link to what can happen when a mixture of similar issues (such as; low income, inadequate skills, unemployment, bad accommodation, health problems, poverty, and family dissolution) impact the individuals (Kempson, 2000). This eventually relate to the concept of Finance led Capitalist approach where the gap between two parts of society will affect the health of economy that further reflect the concept where the rich become richer and poor become poorer (Soederberg, 2013). Hence Financial Inclusion (FI) help

to bridge the gap between excluded and included, and rich and poor. Further it highlight that this concept of financial inclusion is not the single isolated concept but it is associate with any other factors of societies (such as; geographical, socioeconomic, cultural, and many other) in order to enhance the growth and sustainability of the every state's formal economy (Adudal & Kalunda, 2012).

### **2.3.3 Neural network process:**

This network is about the information processing system structure which possess large number of neurons (processing units) that are linked to one and other to form network. The basic unit of human brain is the neuron that composed of certain parts as; this system depend upon the input and output approach. Neurons obtain inputs and will be accumulated when active neurons reaches to certain high level, it will be get activated (equal or above threshold level) or if not (Below threshold level) then will remain calm or inactive. Entry of inputs are from dendrites that will link to output via synapse then the output neuron will carry output information (Semieoglu, 2019). Haykin (2004) suggested the use of this technique by linking to humans through their learning process in terms of problem solving criteria.

Next to input and output approach is the consideration of relationships between neurons. The layered and non-layered network approach that are further linked to the supervised and unsupervised learning methods. In layered networks the data is signal to other layers known as "feed forward" while in case of non-layered networks it possess additional "feedback nodes" which prevent the divisions among layers (Mao, Yang, Huang, Liu, & Li, 2019). Further layered networks contain one or more hidden neural networks that help to linked input to output. According to several studies one layered neural networks are more accurate to observe the brain activity. It consists of three layers "The input layer, hidden layer, and output layer". In case of supervised learning "The small propriety weights are valued randomly and is then moderated slowly to the certain points where relationships are meant to be learned" and this process is repeated several times to obtain feedbacks for error minimization. However for unsupervised learning training section is conducted without involvement of world (Semieoglu, 2019).

Number of researchers and businesses use the benefits of this neural approaches such as; Ellis, Yao, Zhao, and Penumadu (1991) described the use of this approach in maintaining the challenges of tensile pricing strategies, Procter (1992) use this approach in learning "marketing

data models” and its support in aligning “marketing decision support systems”. Cary and Matin (1993) used this approach to modelling response of consumers after subjecting to advertising stimulus. Wray, Palmer, and Bejou (1994) study the relationship between buyer and seller. They quantified factors affecting this relationship with help of neural approach where input elements (customer orientation, ethics, seller’s sale trend, expertise & durability of relationships) and output elements (satisfaction and trust) were identified (Semieoglu, 2019, p. 118)

After introduction of neural system in other interdisciplinary fields it provides diverse platform for researchers and practitioners to fasten and smoothen their work in association to neural approaches. Semieoglu (2019), described the development in field of marketing by highlighting systems associating with marketing areas given by different scholars as;

*“Stratex; it is the knowledge system aimed to support selection of market segments (Burch & Hartwigson, 1991). Adduce, a system to justify consumer reaction to advertising (Barak, 1991). Comstrat, system for strategic marketing decisions with special emphasis on competitive positioning (Curry, Moutinho, 1993). Maestro, a network intelligence system (NIS) for developing marketing strategies and assessing strategic marketing factors (Lee, 2000)”* (p. 118).

Although the used of neural network approach with the genetic algorithms also provides series of other conducted financial studies dominant among them were as;

*“Hart Vigsson (1990) introduced the knowledge system for financial analysis in banking known as Kabal. Similarly Pinson (1990) provided knowledge system for credit evaluation known as Credex. Zopony Diss (1996) introduced multi criteria knowledge system that support decision making in assessing performance of company and its life capabilities known as Fineva”* (Semieoglu, 2019, p. 119).

The concerns for the reduction of poverty through use of financial services bring policy objectives that are emphasizing more towards quality access to avail broader aspects of such services. For introducing more quality concern it grasp focus towards the progression and accelerated dissemination of information along with considering communication technologies, which aims to lessen the cost of reaching towards the segments (Demiguc-kunt et al., 2008). After series of expansions microfinance was then considered as integral or fundamental part of inclusive



financial system and financial inclusion was then recognized as essential objective of policy that will represent the monetary and financial stability within state (Hawkins, 2006).

About 2 billion or 38 % adult population lack the access to formal institute that deals with financial services around world in 2014 (Demirguc-Kunt et al., 2015). This problem is seem to be universal but majority of these unbanked population are the part of developing nations (Chibba, 2009). While in 2018 this figure is decreased to level of 1.7 billion and majority of the unbanked population is still the part of the developing economies. Among all such economies half of the adults belongs to seven state as; “Bangladesh, China, India, Indonesia, Mexico, Nigeria, and Pakistan” (Demirguc-Kunt et al., 2018; Global Findex Data, 2018; Hassan et al., 2020).

The main reason of slow economic development in these countries are because of low inclusion that affects the financial stability on one side and social cohesion on the other. Opposite of inclusion is the exclusion of the financial services lead by capital accumulation that are continuously contributing to increase in level of poverty. It also encloses to obtain credit through formal financial institutions that encourage adult populations to invest in different opportunities such as; (Business and education) and even to use insurance products. This will help people to better manage and estimate financial risks (Raza et al., 2019).

Global Findex database indicate that almost 64 percent of adults round the world have a formal account (Demirguc-Kant et al., 2015). The income and access to accounts are directly proportional to each other such as High income economies like those included in organization for Economic Co-operation and development (OECD) show universal count for account holders as 94 percent and for other developing economies it reached to just 54 percent. But among developing countries number varies a lot such as it range from just 14 % “Middle East” to 69% “East Asia and Pacific” (Raza et al., 2019). Hence level of poverty and exclusion are somehow relate to one and other. Financial inclusion provides growth access to be included in the part of formal system that will help the subjects to tackle with the routine ups and downs more smoothly and affectively. It will also enable economic agents to make long term investment decisions.

#### **2.3.4 Neuromarketing solving issue of financial reporting system:**

Neuromarketing is linked to studying the behaviors of context in order to have clear picture of their minds to solve many problems. There is always an issue of studying the behaviors of investors and to arouse their interest for provided services. Among various problems there is

always a problem of presenting financial reporting to the clients. A research conducted by Eremenko and Kuzmina (2019) provide a useful approach by linking the neuromarketing application for solving the ups and downs in concerning the financial reporting issue. Till 15 century old accounting bases were used and not any changes were made operated. But after this time period many auditing and accounting scholars contend that presentation of financial reporting has lost its popularity in classical context for its users for more than thirty years (Francis & Schipper, 1999). The reason behind such statement was to bring attention towards the presentation of financial statements which is usually available in inaccessible format that provide no clear picture to users especially to non-professionals. Next problem was the unreliable information posted for the importance of economic entities at time of reporting. Which create difficulties for investors, tax authorities and lending organizations while concerning economic decisions (Hail, 2013).

In order to process large amount of data and make it adjacent to catchphrase of “accessibility, visibility, simplicity and efficiency” is possible by using the techniques of neuroscience and this young discipline of neuromarketing can help marketers to solve this issue along with boosting profits. According to Eremenko and Kuzmina (2019), the field of neuromarketing will be counted as new context of emerging economics that will link marketing and science of human brain. This can be made possible by considering the financial reporting as the commodity instead of document for organizations and need to be sold and advertised accordingly to the consumers. Commodity association to document is not the signal problem of accounting but it counter many more such as in addition to outdated standards it displays the high level of complexity in its presentation and issue of its availability to common people. Thus for general audience it seem to be called as “scientific nonsense”. Next the concerns for the falsifications of financial reporting in order to provide wrong picture to investors or to protect themselves from high tax payments (Kirkos, Spathis, & Manolopoulos, 2007).

Consequently there exist series of issue in current prevailing situation for representing report. According to Eremenko and Kuzmina (2019), companies should focus on friendly interface while keeping in mind the legal documentation and procedures along with suitable advertising strategy to present. They suggested the principle of personification of goods towards the financial statements. Where company will provide customizable reporting capability to users. The design

website will be carrying all company data and access will be through the registration of users. The use of neuromarketing techniques will be carrying the responses of users while approaching to the concern financial indicators. Such kind of initiative will take high initial cost to adjust and maintain the websites and to pay and appoint accountants. But this will help to answer many queries of tax and credit organizations. This will help company to credit loans for developments and bring new investments in long run. We can associate this thing with the biological tendency of human always focus on consuming benefits that are easier to get (Ermenko & Kuzmina, 2019). Thus digitizing the services will help them to easily interact and provide true consuming experience to customers. The new unconscious inputs through neuroscience tools will be consider to modify and align their services as accordingly.

The main issue in creating inclusive environment is the lack of proper knowledge of services to the target audience. Practitioners are suggesting series of changes in the policies, promoting unregulated climate, and focusing on increasing the microfinance institutions (Hannig & Jansen, 2010). But series of deficiencies in interacting and communicating with audience especially poor people is still for behind the operation of microfinance institutions. Low level of inclusion occur as result of few prevailing issues with access, price, marketing, self-exclusion, and negative perceptions or experiences of audience (Sarma, 2008).

For this practitioners need to understand and investigate cognitive processes of consumers to abstract better idea about their needs and opinions relate to provided products and services (Ghorpade, 2017). While concerning about the cognitive process the theory of bounded rationality given by Simon (1995) “Described that human make partially irrational decisions when they are based on information and time criteria and here exist their cognitive limitations hence they focus on level of conformity not on maximizing utility at time of making decisions” (Banos-Gonzalez et al., 2020, p. 2). Working of the neuroscience in any applied field circulates around the query of how human brain thinks? Tverski and Kahneman (2012) provide viewpoint that human mind use two systems for decision making; “one is fast, emotional, and intuitive and other is slow, rational, and deliberate” (p. 23). Among these two system which plays dominant role was always considered as important mystery to be solved because there was no proper scientific method to reach towards any accurate estimations (fugate, 2008).

According to Adudal and Kalunda (2012) the prevailing financial exclusion in a society has its roots in the social exclusion. They further highlight that series of studies have done that shows for eradication of poverty, one of the important factor is the development of its financial sector, in terms of ensuring its availability and accessibility to all segments of society. Diamond and Dybvig (1983) postulate that the main responsibility of banking sector is to boost the provision of liquidity. This boost will enabling increase in investments for productive assets, which will further upgrade “The efficiency of capital accumulation and even the economic growth” (Adudal & Kalunda, 2013, p. 96). Such services are formed in order to make it capable of achieving equally to all segments including poor households and geographical regions that are economically disadvantaged. Olugbenga and Olankunle (1998) studied the financial system and described that one of the major player among this system is the financial institution which occupy very important position in every nation’s economy. Financial institutions are formed to make the uniform access to all segments. Which can be possible through initiating the proper applications of financial inclusion (Burjorjee & Scola, 2015).

For introducing proper system for inclusion the marketing efforts should be made a step forward then the exiting market systems (CGAP, 2015). In presences of various traditional approaches of marketing to predict the consumer behavior and psychology are hardly able to compare with this neuromarket approach because the defenders of neuro-market approach indicate having potential to go far beyond the existing methodologies such as focus groups and even aim to be very profitable in terms of data extraction from non-conscious or sub-conscious level of consumers (Nemorin, 2017). The neuro-market techniques help to investigate the brain circuits in detail that help to predict consumer behaviors more accurately for future situations (Suomala, 2018). Such studies aims to obtain the content that will provide better adjustments of marketing messages that are received from their feedback output even without conscious involvement and participation of test subjects, which can be measured both scientifically and objectively from consumers (Semieoglu, 2019).

#### **2.4 Techniques of Neuro-marketing:**

For measuring behavior through use of neuroscientific methods in neuromarketing consists of three board categories as; “neural activity inside brain, neural activity outside brain, and manipulate neural activity”. The neural activity inside brain is further divided to two types the

Electromagnetic (electrochemical) and Metabolic (energy consuming). Every type is composed of different techniques that can be used based on availability and cost management (Lim, 2018). Further each technique has advantages and disadvantages.

#### **2.4.1 Electromagnetic techniques:**

##### **2.4.1.1 Electromagnetic technique (EEG):**

First, Electromagnetic technique is Electroencephalography (EEG), which is used to record electrical activity inside brain while conducting study. The test is performed while using band or helmet to test subject and then small electrodes are display over the scalp. This method help to detect the pattern of electric current when individuals are subjected to concern market stimulus. The output is provided in form of brainwaves because it possess characteristics of non-invasive method (Morin, 2011). Benefit of using this technique is that it provide high temporal resolution at proportionately low cost for detecting study activity. Further it is portable device hence can be used in actual testing environments (Bercea, 2012). However it provide low spatial resolution which mean it limit the access of recording activity area of brain and is then considered to understand only core region of entire cognitive process of examine brain (Morin, 2011).

##### **2.4.1.2 Magnetoencephalography (MEG):**

Second technique of electromagnetic method is Magnetoencephalography (MEG). It is used to record magnetic activity that occur within brain after subjecting to stimulus through use of helmet that is bombarded with 100 to 300 quantum interference detectors (sensitive superconductors) to subjected individual ( Ariely & Berns, 2010; Kenning & Plassmann, 2005). In comparing it with EEG, it is also non-invasive method, providing excellent temporal resolution but is more costly and is not portable thus it required laboratory setting for examining brain activity. While considering the spatial resolution it provide better output then the EEG because the distortion level for magnetic field is very much better than the electric field. While comparing to standards it also have limited spatial resolution (Morin, 2011).

##### **2.4.1.3 Steady-state topography (SST):**

Third method of electromagnetic technique is Steady-state topography (SST). “It is used to record the electrical activity while using helmet or band along with sixty-four electrodes subjected to tested individual. At time of subjection, individual is viewing audio-visual material

while performing psychological task with a sinusoidal visual flicker presented in the visual periphery to elicit an oscillatory electrical responses from brain in form of Steady-State Visually Evoked Potential (SSVEP)” (Lim, 2018; Silberstein, 1992; Vialatte, Maurice, Dauwels, & Cichocki, 2010). This method is used to capture the task related variations and changes inside brain as non-invasive method along use of SSVEP measurements (Silberstein, 1995). Hence this techniques help to calculate the phase difference between two state one is SSVEP measurement and other is Study stimulus. Further the change in synaptic excitation is identify through change in level of latency such as reduction in it indicate the increase in level of excitation and vice versa. It help to provide the scientists with high temporal resolution by tolerating physical and noise distortion for longer period of time but still having limitation for spatial resolution (Lim, 2018).

## **2.4.2 Metabolic technique:**

### **2.4.2.1 Functional Magnetic Resonance Imaging (fMRI):**

The second main method for measuring the neural activity inside brain is of metabolic technique, among this the first technique is named as Functional Magnetic Resonance Imaging (fMRI). It use the MRI scanner in order to map the activity inside brain by associating it to the blood flow criteria of tested subject (Huettel, Song, & McCarthy, 2009). This method is based on alignment criteria of atom particles with the magnetic field when test individual is lie on bed and is surrounded by MRI scanner (Zurawicki, 2010). Then this scanner help to track the oxygenated blood inside brain and describes magnetic properties of oxygenated and deoxygenated blood that correlates with the conducted neuronal activity (Kwong et al., 1992; Purves et al., 2008). This non-invasive method provides three-dimensional view of study area of brain (Zurawicki, 2010). The process occur as when test subject is exposed to particular market stimulus then inside brain few areas will receive more oxygenated blood and creates distortion in magnetic field. This distortion is due to emitted hydrogen protons (H<sup>+</sup>) in water (H<sub>2</sub>O) molecules that are captures by the MRI scanner (Morin, 2011). This technique help the scientists to visualize the real time change occur as when the gray scale image of brain is overlapped by the display color area with the help of viewing the screen administered by Scanner (Bercea, 2012, Zurawicki, 2010). It offers benefit of high spatial resolution but low temporal resolution (Kenning & Linzmajer, 2011; Morin, 2011). It is very expensive technique that help to investigate the very small and inside deep structures of brain with high spatial resolution that help to examine emotional responses (Lim, 2018; Morin,

2011; Zurawicki, 2010). Furthermore it help to scan two and more test objects while investigating any social exchange behavior with help of Hyper-scanning method. Thus it can investigate marketing stance on social concepts like “Trust, Co-operation, and reciprocity” (Kenning & Linzmajer, 2011; Montague et al., 2002).

#### **2.4.2.2 Positron Emission Tomography (PET):**

Second metabolic technique is Positron Emission Tomography (PET) that is used to record and measure two high energy gamma quants that are produced by radioactive decay of radionuclide (Positron-emitting nuclide) that are entered to body through active biological molecules (Bailey, Maisey, Townsend, & Valk, 2005; Perrachione & Perrachione, 2008). It is an invasive method that trace the radiation pulse through use of battery that are placed on the head of subject. Battery act as detector that show the fine details of brain’s metabolism of glucose level inside (Bercea, 2012; Zurawicki, 2010). It is used to measure the points of origin from their corresponding variations in directions and identify the path covered from the starting position. It provide benefit of high spatial resolution but with low temporal resolution, more expensive, and restrictive application (Kenning & Plassmann, 2005). It allows the detection of monitoring very minor changes in chemical composition of smaller areas within brain (Kenning & linzmajer, 2011).

#### **2.4.3 Neural activity outside brain:**

##### **2.4.3.1 Electrocardiography (ECG):**

Now the Electrocardiography (ECG) technique which is the neuroscientific method that deals with the neural activity outside brain and it record electrical activity of heart after subjecting to use of external skin electrodes in case of exposing them to the market stimulus (Bercea, 2012). After subjection to stimulus electrical activity is determined through activation of the millions of individual cells that generate signals and their intensity of activation will further influence by cardias and extra-cardiac factors (Noble, Hills, & Rothbaum, 1990). This method circulates around the heart rate measurements and there exist two antagonistic systems for estimating it as; Sympathetic Nervous System (SNS) and Parasympathetic Nervous System (PNS). SNS indicate the automatic responses based arousal of human body after subjected to exposed stimulus and PNS indicate the attention based rate deceleration in form of conversation of energy inside body (Lang, Bolls, Potter, & Kawahara, 1999; Potter & Bolls, 2012; Wang, Lang & Busemeyer, 2011). ECG

technique provide accurate patterns of anatomic and pathological data “but it lag behind brain activity by several seconds” (Lim, 2018, p. 208). It help scientists to have real-time data at low cost related to emotional state of subjects which is less likely to be influenced by social desirable biases (Plassmann, Yoon, Feinberg, & Shiv, 2011).

#### **2.4.3.2 Eye tracking:**

Eye tracking is among the easiest and effective method usually used for measuring the responses of test subjects in marketing environment (Lim, 2018). It basically track and record positions of eye and associate movements with help of eye trackers (Vidal, Turner, Bulling, & Gellersen, 2012). The method involves the use of optimal camera that can be in form of electro-oculogram, or contact lens, or may be video oriented that identify the position and location of pupil and cornea through use of infrared light which evokes corneal reflection (Venkatraman et al., 2015). It determine and record gaze patterns and locations after subjecting to market stimulus, which explain the behavioral responses for that neural activity. This method require low cost for operation and provide high temporal resolution that provide clear and understandable connections between what individual see and how they react to the process information (Plassmann et al., 2011; Venkatraman et al., 2015).

#### **2.4.3.3 Facial electromyography (fEMG):**

Next is Facial Electromyography (fEMG) technique which is used to record the physiology of facial muscles through amplifying and detecting small/ tiny impulses created by muscle fibers, when they interact with small surface electrodes while subjected to EMG equipment (Dimberg, Thunberg, & Elmehed, 2000). This non-invasive method is used to investigate movement of both voluntary and involuntary facial muscles that aim to understand the conscious and unconscious expressions of emotions of individuals in the study environment (Dimberg et al., 2000; Ohme, Matukin, & Pacula-Lesniak, 2011). It operates at relatively low cost and help the scientist to measure changes in facial expressions through generation of electric impulse (Lim, 2018). This technique is not based on invasive spread mechanism that’s why it creates hindrance in obtaining the required quick expression.



#### **2.4.3.4 Skin Conductance (SC):**

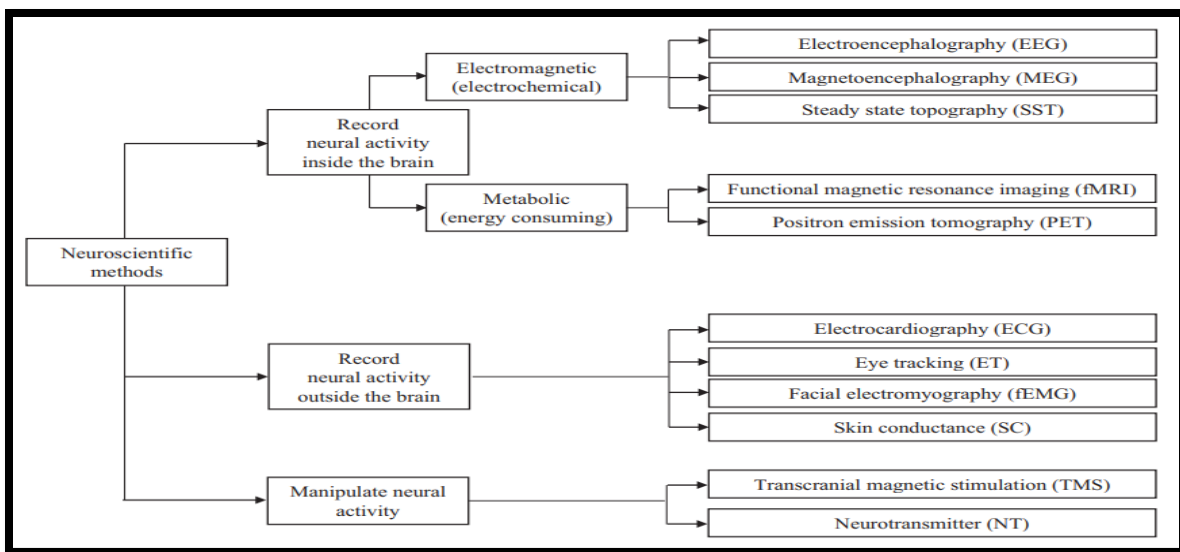
Next is Skin conductance (SC) technique which is used to record ultra-fine changes in skin conductance responses as result of activation of Automatic Nervous system (ANS) and it get activated when test object is exposed to marketing stimulus while individual become momentarily a good conductor because of increased activity of sweat (eccrine) gland (Ohme et al., 2011; Venkatraman et al., 2015). This non-invasive method help scientists in obtaining direct tonic responses. It further causes delay in occurrence because of non-invasive nature of capturing of SC method. It just help in measuring the degree of arousal and cannot offer clear evidence for valences of emotional reactions. Like both delightful and depressing stimulus can evoke skin conductance responses (Ohme et al., 2011; Potter & bolls, 2012).

#### **2.4.4 Manipulate neural activity:**

After explaining the activity performed outside the brain comes the methods that are used for manipulating neural activity and it consists of two methods, the one is Transactional Magnetic Stimulation (TMS) and other is Neurotransmitters (NTs). The TMs is used for causal testing of brain functioning such as the stimulation of nerve cells through sending electromagnetic impulses to specified regions of brain (e.g. skull and scalp) by using plastic case that contains electromagnetic coil. This coil is placed over the specific location of head (Kenning & Linzmajer, 2011; Sliwinska, Vitello & Devlin, 2014). “This method help to modulates activity of specific areas of human brain by temporarily disrupting functions there and generates short-lived virtual lesion in that particular region” (Lim, 2018, p. 209). This method along with the support of other neuro-marketing method can provide advantage to investigate studies of causality and to make causal inferences with high external validity (Kenning & Linzmajer, 2011; Sliwinska et al., 2014). It disrupts brain activity and provide the scientist to use other technique to observe the behavior and task performance that will help to identify whether the stimulated area is necessary to perform task or not (Sliwinska et al., 2014). Consequently the dominant advantage of using this technique is that it add more to external validity as comparing to the correlative measures that are produced by using single neuroscientific technique that cannot disrupt the activity inside brain (Kenning & Linzmajer, 2011). It is portable equipment and can be used in real-time study environments but having low spatial resolution, difficult to provide accurate causal description because of

interconnectedness of different regions of brain, and even having potential of emitting more radiations (Kenning & Linzmajer, 2011).

The Neurotransmitters (NTs) technique help the scientists to use the chemical substances inside brain where it enables the transmission of signals from one neuron to the other neuron which is targeted for the neurological process. This process is operated similar to the relation of synapse and receptor interaction where neuro-transmitters are transmitted from vesicles in the synapses and them received by receptors (targeted neurons). Neuro-transmitters are produced from precursor (peptides and amino acids) where they required minimal steps of biosynthesis that help them in conversion. The chemical substance used is the introduction of pharmacological drugs into body (like Oxytocin, Phenylalnine, serotonin, and tyrosine) that help to operate the process. While linking to use of other technique along with the NTs will help marketing scientists to perform test for association, necessity, and sufficiency of linking these neural processes and consumer behavior with marketing stimulus (Plassmann et al., 2011).



**Figure 2.12: Neuromarketing techniques**

**Note.** *Demystifying neuromarketing, by Lim, 2018, p. 207.*

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 Research Design:

It is the design or framework which is used for data collection and its analysis (Bryman & Bell, 2018). Furthermore it identify which sort of information is required for conducting study lead by indicating various sources of data and measures of its collection (Kinnear & Taylor, 1973). From marketing perspective, research design is considered the imprinted pathway lead to perform the research aimed to solve market oriented problems by using guided procedures. These procedures help to obtain and analyze concern obtained information (Malhotra & Bricks, 2005).

Research design associate to this study is based on the case study analysis aimed to abstract the opinions of experts to interconnect the association between the financial issue of financial inclusion and marketing issue of very low awareness and penetration regards the concern audience.

#### 3.2 Data Collection:

Collection of data is the core of part of conducting research that can be based over collecting through primary and secondary sources of data (Bryman & Bell, 2018). This study is based over collecting from both sources. In this research, for answering research questions primary data is used. For gathering of secondary data reports, websites, and other online sources are used. After building interview structure, we focused over case study method where thematic analysis is performed to analyze the collected data set.

#### 3.3 Data Analysis:

For analyzing the collected data focus is over the method of case analysis that do not follow any proper set of guideline to perform analysis (Yin, 2009). This process is dependent over to the researcher whether to make logical abstraction of concepts or to manipulate the data upon his own preferences. (Ghauri & Gronhaug, 2005). There are number of methods that can be used for analyzing case study analysis. This research follows the thematic analysis that aimed to perform manual analysis step by step facilitating to abstract the important categories or themes out of interview transcripts.

### **3.4 Quality Concern:**

The stance of incorporating the research with concerning over quality aspect is considered very important area specifically for business and management research and also for inducing any policy criteria. More focally it depend upon assessing the validity and reliability criteria to conducted research (Bryman & Bell, 2018). Further the subjective focus of study is more towards assigning the work towards “Conformability, Dependability, and even to Transferability”. But for objective focus of studies is towards depending over the reliability and generalizability concerns (Denzin & Lincolon, 2008; Rashid, Rashid, Warraich, sabir, & Waseem, 2019). This research is aims to provide subjective focus towards issue of financial inclusion. Opinions of experts are analyzed to provide series of market stimuli. Which they consider important and will help to identify issues prevailing in minds of targets.

#### **3.4.1 Validity:**

Validity for qualitative data analysis is focus over coherence of made conclusions based on the research conduction (Bryman, & Bell, 2018).

##### **Internal validity:**

For case of internal validity concern which is based over compatibility of observations and suggesting the theoretical framework that is further supposed to be tested for future researches. For attaining high internal validity all interviewed questions are operationalized by associating to the presence of existing concepts along with highlighting comparatively new for this Pakistani market in sense of implementations. Detailed interviews of approximately between time brackets of 3-4 hours are carried out. Further guideline provided by various scholars “Yin (2009), Thomas (2010), Javrvensivu and Tornroos (2010), Rashid, Rashid, Warraich, sabir, & Waseem (2019)” is used for concerning case study analysis and for thematic analysis the guideline provided by “Ritchie et al. (2003)” is used to ensure high internal validity while assessing conclusion to the data collected.

However for qualitative research the factor of internal validity or authenticity is always the main issue (Ghauri, 2004; Merriam 1988; Rashid et al., 2019). In order to ensure that how congruent are the study findings in respect to reality. It should be focused over factor of credibility that reflect the internal validity of the study” (Rashid et al., 2019, p. 8). According to Lincoln and Guba (2005), the internal validity is based on aspect of true value associate to study. For ensuring

this aspect, study described the answers (for asked questions) in respect of how participants has viewed them. Next for ensuring the internal validity, the concept of triangulation is required that make use of multiple data sources, investigations, methods, theory to the extent possible corroborating evidence (Devers, 1999). This study used triangulation concept for using multiple data sources such as; existing literature, online companies websites, and annual reports for building structure of interview and at time of conduction every aspect of information is written and surrounding observations is considered. Next for disconfirming evident (Negate cases or existing hypothesis) requires to refine the existing theory (Devers, 1999). In this study focus is over using existing model of S-O-R theory, where from starting focus is over predicting and measuring the reason of output response at stage of organism. This study provide informed constructions in form of set of categories that required to be placed at stage of stimulus. Then at organism stage it is required to modify existing S-O-R model with introduction of neuromarket technique. Which will provide accurate responses behind output behavior. Last consideration for ensuring the internal validity is based on researcher's reflexivity (Devers, 1999). I tried my best to ensure this aspect by just focusing over describing the output analysis that is been given by the participants.

### **External validity:**

It is linked to refer the outcomes of conducted studies that can be generalized to other situations or places except focusing over the concern area of subject (Bryman & Bell, 2018). For this research it is hard to induce the *generalizability aspect* to other operating industries in Pakistan. Generalizing even it to other state is also questionable but identified categories can be consider important for all, while describing and forming proper market message for inducing financial inclusive environment. Aside from theoretical generalization, this concept is associated with the empirical or qualitative findings. As it has been associated by many scholars such as; "Hammersley (1992); Ritchie et al. (2003)" and referred it as *external validity* concept. For theoretical generalization the resulted framework after conducting this study is suggested to practical testing. After testing or hypothesizing this model can be subjected to theoretical generalization. The concept of aligning it to the context from which study is conducted is varied for other studies and is always not considered explicit that can measure the transferable findings (Hammersley, 1992).

Furthermore Qualitative research and social phenomena by their nature can't be replicated as real world changes (Marshall & Rossman, 2006; Strauss & Corbin, 1998). According to Easton,

McComish, & Greenberg (2000) each given interpretation is unique therefore replication is impossible. This uniqueness of qualitative research makes debate of reliability and generalizability irrelevant (Rashid et al., 2019).

### **3.5 Case study:**

This method of study has been used by many researchers in performing academic research where the stance for collecting data is based over qualitative research (Baskarada, 2014; Rashid et al., 2019). Case study focus on qualitative research methodology aims at exploration of subject associate to some study context interlinked with various sources of data. For exploration concern it passes through various lenses of viewing that help in highlighting various multiple dimensions of the study subject (Baxter & Jack, 2008).

#### **3.5.1 Reasons behind choosing case study method:**

This method allow researchers to investigate the data in some concern context. The nature of its conduction is based over specific phenomena or in associate environment (Yin, 1994). This study aim to find the awareness level that is associate with the low level of financial inclusion in Pakistan. Currently the main problem is with existing microfinance banks and institutions. These institutes are not even focusing over marketing proposals to boost the level of inclusion (Mustafa, 2015). Hence to abstract directly their opinions will not be helpful in finding the issues and we inclined to focus over institutions who are considered pioneers in providing these services. Next financial inclusion is the global issue and Pakistan is considered among those nations prevailing with less percentage of inclusion (Fantom & Serajuddin, 2016). Thus this effort focused over commercial banking industry (Pioneer in providing FI services) and Mobile Money Operators (Telenor as pioneer among them). In addition to its conduction, results are formed in the detailed illustration and analysis of the study phenomenon (Merriam, 1998). For method conduction, it can be divide on investigating the case on single organization, for one single location and for one event or for single individual associate to the study of concern (Brayman & Bell, 2018). It can also be based on investigating the case on including all the players of one operating industry (Rashid et al., 2019). Similar approach is used for conduction of this study. It further put together the associate methods of data collection such as interviews, observations, questionnaires, and even archival sources (Eisenhardt, 1989).

Next reason behind choosing case study method is to abstract the opinions of group of people who are considered pioneers in providing services to the customers. This study is not based on just abstracting the first conscious output of several people having associate experience like what is the main focus for opting phenomenology (Sloan & Bowe, 2014). Instead focused is on detail description of rest of process of financial inclusion and associating with suggested technique of neuromarketing. Next Case study provide detail illustration of processes along with explaining each aspect of philosophy associate to conducting qualitative research methodology (Rashid et al., 2019). It is the empirical based investigation that investigate the current phenomenon for real life context where the boundaries and coherence between phenomenon and study context is not clear enough and there use of various data sources are involved (Yin, 1994). Case study help to analyze complex and unique phenomenon where it permit the mobility where various methods can be combine to avoid dependence over one searching platform (Bryman & Bell, 2018).

### **3.5.2 Philosophy associate to study:**

Research philosophy plays vital role in building the basis that explain how you approach to method associate to your research (Rashid et al., 2019; Wilson, 2014). Philosophical paradigm is based on understanding of ontology, epistemology, and paradigm choices that act as pillars to support the study context (Denzin, & Lincoln, 2008; Rashid et al., 2019). Case study procedure was given by three authors Robert K. Yin, Sharan Merriam, and Robert E. Stake that describes the detail process of conduction of case study for practical and academic practices (Creswell, Hanson, Plano, & Morales, 2007; Rashid et al., 2019). They described the detail process of association of taking philosophical, practical and data collection along with associating to some specific measuring technique or tool (Yin, 1994).

Case study approach is focused over four phases that help to describe every aspect of conducted study (Creswell et al., 2007; Rashid et al., 2019; Yin, 1994). The concern phases used by this research study is as follow;

#### 1- Foundation Phase:

- ❖ Philosophical consideration,
- ❖ Inquiry techniques consideration,
- ❖ Research logic consideration,

#### 2- Pre-field:

- ❖ Decide
  - ❖ Case study protocol,
- 3- Field Phase:
- ❖ Interact
- 4- Reporting Phase:
- ❖ Case study reporting.

*Foundation phase* is initially divided into *philosophic consideration* (Barker, 2003). Paradigm is a pattern that contains set of defensible assumptions and design for data collections and interpretation that help to reveals the selection of quantitative or qualitative research methodology where the selected assumptions constitute valid research problem (Barker, 2003; Rashid et al., 2019). Every research has its own ontological (assumptions of reality or study of being) and epistemological (Knowledge of researchers) assumptions that shape particular research method (Crotty & Crotty, 1998; Maree, 2015).

*Ontology* is classified as “realist and relativist” (Guba & Lincoln, 2005). Realist ontology assumes that “*Reality exists independent of observer’s perceptions and operates according to immutable natural laws that circulates around cause and effect form*” (Guba & Lincoln, 2005, p. 195). This study is not focus over this aspect because issue reveals within financial inclusion environment is not base over specific natural law. Financial inclusion is linked to behaviors of individuals whether they are agree to avail such services or not. The issue of low awareness regards inclusion concept require explanations from service providers or institutions. Consequently subject can’t exists independent of explanations by the researchers. Hence this study is based on the relativist ontology which assumes “*There exist multiple, socially constructed realities ungoverned by natural laws*” (Guba & Lincoln, 2005, p. 195). Furthermore qualitative case study assumes around relativist approach (Rashid et al., 2019). Therefore possibility of considering true construction don’t exist. Similarly, in this study only informed constructions or stimuli are identified. Next this study belongs to system of interpretations where the abstracted stimuli are interpret base on collected information from experts. Accordingly studies focus over relativist approach is interpreted by the researcher’s point of view (Rashid et al., 2019). Thus output of this work out is performed by the researcher instead of using any quantitative approach for analysis.



**Philosophical paradigm** associate to this study is interpretivism. It allow researchers to have multiple or various views for research problem because it permits researcher to see the world through eyes of participants (Greener, 2008). Accordingly this study is focus over getting multiple views for marketing problem of financial inclusion and output of study is based on opinions of participants. From ontological aspect, interpretivists focus over subjective realities that present in research problem (McKenna, Richardson, & Manroop, 2011). As Social context of study is related to less awareness of targets towards financial inclusion and less level of awareness by the experts related to suggesting technique. Interpretivist also focus on context of human complexities with regards to know how people understand the concern phenomena (Kaplan & Maxwell, 1994). In this study, the system provided to audience for availing inclusive services are not able currently to capture bulk of targets. Hence series of complexities exists in mind of audience require subjective efforts that can provide ease in understanding and utilizing the financial inclusion services.

Next for **epistemological concern**, Maykut and Morehouse (2002) describes that “Epistemology emphasizes on the nature and origins of knowing and construction of knowledge” (Rashid et al., 2019, p. 3). It is further characterized by either objective or subjective in nature (Rashid et al., 2019). If research focus on knowledge that is governed by laws of nature is characterized as objective in nature whereas if research focus on knowledge that is governed by other individual’s observations or interpretations is characterized as Subjective in nature (Maykut & Morehouse, 2002). When objective of study is to build more informed constructions or opinions then subjectivity of research prevails (Rashid et al., 2019). Here study is focus on abstraction of constructions or opinions from the experts who are considered as parent companies for providing financial inclusion services. Hence subjective concern of experts related to low level of existence and awareness of financial inclusion is studied. Next for the subjective opinion towards using neuromarketing techniques is also studied. Where opinions regarding existing marketing platforms are investigated.

For the **research logic consideration**, this study is formed for abductive concerns that is coined by the Peirce (1903) and is the knowledge base that act as providing middle ground between deductive and inductive approaches (Jarvensivu & Tornroos, 2010; Rashid et al., 2019). This study aimed to investigating link between present concepts of experts towards financial inclusion problem and awareness of new technological investigating technique. Dubois and Gadde (2002)

describe the similar approaches of abduction to create links and relationships between languages and concepts. Aside from induction, abduction accepts existing theory, as in the study existing theory acceptance is S-O-R theory and at end aimed to provide new application linkage of the theory that can act as new concept and can serve for hypothetical concern for future studies (Thomas, 2010). Where various abstracted categories will be acting as stimuli that aim to be test by using neuromarket techniques to filter out the complexities in the mind of targets that create barriers in terms of availing services. Consequently the outcome of abductive research is a framework that provides tentative idea of what theory can look like (Jarvensivu & Tornroos, 2010). Anyhow abduction focus is over less theory driven like deduction and for abduction serves as idea need further testing (Rashid et al., 2019).

Next for *philosophical conduct*, this study is focused over the *prefield phase*; where operationalization for assessing the accurate concerns aimed to select interpretations and links between the study literature and observation concerning real life issue under investigation. Literature is collected for both financial inclusion and neuromarketing. From collected secondary data we operationalized interview questions as;

### 3.5.3 Operationalization of interview questions:

Questions	Concept	Operationalization of questions
Question # A “For requiring modifications, innovations, flexibility in pricing and offerings, and changing way of communicating customers by approaching and targeting their unconscious levels or through their subliminal reactions give birth to the new subfield of marketing along with the stance of science and technology known as <b>neuromarketing</b> ” What is	(Harvard Professor Jerry Zaltman late 90s), (Paul Lauterbur & Peter Mansfield, 1990), (Klinckova, 2016; Smidts, 2002).	The interlink of various disciplines psychology, neurology, sociology, and marketing that aimed to investigate the emotional/unconscious responses in addition to conscious one by examining it directly through brain insights. This question aim to find the awareness of concept among people interviewed.

<p>your state of awareness towards this above underlined field?</p>		
<p>Q# B This technique help to measure approximately accurate decision making process of consumers hence by using this approach will also help you to investigate psychology and perception of customers towards financial services?</p>	<p>(Hart Vigsson (Kabal), 1990), (Pinson (Credex), 1990) (Zopony Diss (Fineva), 1996). “Using neural network approaches in order to study the financial analysis in banking systems”</p>	<p>To know opinion of experts related to whether this technique will help them to measure decision making criteria of consumers related to using financial services. “Comparatively new question in Pakistani context”.</p>
<p>Q# C The term <b><u>financial inclusion</u></b> means to have formal bank account for the adults 15 and above aimed to be part of formal economy. According to study literature majority of the target audience even having accounts are not aware with this terminology?</p>	<p>(Bera, 2012), (G20 Leaders, World Bank group, international Financial Corporation (IFC), Alliance for Financial inclusion, &amp; consultative Group to Assist the Poor (CGAP) (2009), CGAP (2015), Asian Development Bank (ADB) (2010, 2015).</p>	<p>This question aims to know about the adult’s familiarity with the terminology and concept of financial inclusion, even if they have formal bank account.</p>

<p>Q#D</p> <p>If marketers starts to focus on studying the unconscious or emotional aspects of poor audience in Pakistan will help the practitioners to solve the issue of financial inclusion?</p>	<p>Unconscious/ emotional</p> <p>Robert Session Woodworth (1954), Albert Mehrabain &amp; James A. Russel (1974), Banos-Gonzalez et al. (2020), Burgus-Campero &amp; vargas-Hernandez (2013), Fugate (2008), Klineckova (2016), Lee et al. (2007), &amp; Morin (2011).</p>	<p>New question related to Pakistani Context for linking study of neuro-science to investigate the unconscious and emotional mind of low income or poor audience.</p>
<p>Q#E</p> <p>To promote financial inclusion every state has to build their own market system function that will be based on their associate supporting functions, rules and norms that aim to balance the core function of demand and supply of this market. Whether such system approach is considered by Pakistani MFIs and MFBs while communicating their target audience?</p>	<p>Market system function given by CGAP (Consultative Group to Assist the Poor) (2015).</p>	<p>This approach focus on viewing the market system that circulate around the providence or delivery of services by providers and use of financial services by users, where the core audience is low income and poor people.</p>
<p>Q#F</p> <p>The prevailing communication gap between the suppliers (providers) and the demanders (customers) is considered the core issue in</p>	<p>Supply and demand side constraints (CGAP, 2015).</p>	<p>This question is aimed to ask whether all problems are resulting because of the missing middle (communication gap) between both side of the audience</p>

<p>promoting financial inclusion?</p>		<p>availing and providing such services.</p>
<p>Q# G-H Did agent banking networks help to create awareness related to financial inclusion in remote areas of Pakistan? Whether the quality of information provided by them is being trusted by the banks or not?</p>	<p>Afshan &amp; Sharif (2016), Cobourne, Mayes &amp; Markantonakis (2013), Kim &amp; Prabhakar (2000), Malaquias &amp; Hwang (2016), Muasya &amp; Keronga (2015), SBP (2017), Zhahid, Jehangir, &amp; Shahzad (2012), and zhaid, Rahman, Makki, Jehang, &amp; Rehman, 2017.</p>	<p>Commercial banks introduce the agent banking in addition to MFBs and mobile banking to make it easy access to people even in remote area.</p>
<p>Q# I By using different platforms (such as; through agents and MMOs as branchless banking) in market to increase the utilization of financial services help the service providers to increase awareness with the terminology of financial services?</p>	<p>Strategic partnerships as intervention strategy (CGAP, 2015).</p>	<p>To know the reason why currently all commercial banks are initially introducing MFBs and then the partnership criteria is shifting towards the telco industry.</p>
<p>Q# J What you think about the implementation of different government and private sectors towards providing the salaries through bank accounts aimed at creating</p>	<p>(World bank 46% employees use bank accounts to obtain their salaries, Demirguc-kunt, Klapper, Singer, Ansar, &amp; Hess (2018), Hassan et al. (2020).</p>	<p>To know whether such implementation help to increase level of financial inclusion.</p>

awareness towards financial inclusion?		
Q# K Did any marketing messages related to the banking product indicate towards poverty reduction and increasing the welfare of rural society through their ads?	<i>Current study aimed to provide idea about various market stimuli that is expected to better understand requirements of targets and design market message accordingly.</i>	Comparatively new concern related to marketing the financial inclusion services. Hardly any proper marketing messages by MFBs in Pakistan is observed.
Q# L The intervention towards granting local training centers for increasing awareness towards financial product innovation and development will help this market in respect of promoting financial literacy? What is your opinion regard this statement?	Granting local training as intervention strategy by CGAP (2015 & Burjorjee & Scola (2015).	To know whether any training centers to educate audience about the financial inclusion exists in Pakistani context.
Q# M According to you what are the causes behind the conservative thinking and psychology of poor/ low-income class consumers towards having formal bank	ZTBL (2017) report on financial inclusion in Pakistan).	New-concept for the marketing teams of promoting financial inclusion.

accounts (financial inclusions)?		
Q# N What you think about “consumers make decisions that are entirely based on their conscious mind or they also involve their unconscious state of mind while making decisions”?	Conscious and unconscious mind involvement for decision making, Braidot, (2005), Burgos-Campero & Vargus-Hernandez (2013), Del-Blanco (2010), and Predeep (2010).	To know whether in Pakistan marketers know about this changing dimension of analyzing consumers directly through brains by indicating decision making process is dominated by unconscious brain insights or not.
Q# O What will be accurate market stimuli that you think can change the decision making process of segments towards availing the financial inclusive services?	New-concept for financial inclusion.	This question aim to identify the market stimuli from experts for financial inclusion in order to interpret these stimuli through use of neuromarket approach.
Q# P <b><u>“IBM Watson use this technique to resolve the issue of the language barrier by using computer system that answered the asked question in that natural language and predict the consumer’s preferences that will highlight what client want and valued”</u></b> . How it will help to solve this issue by introducing neuro-market	Silvia Klineckova (2016).	This question is aimed to ask how the neuromarket approach can help to provide better way to communicate with diversify group of targets of financial inclusion market as what is done by IBM.

techniques that can grasp the customer intake even without their understanding and knowing?		
Q# Q Whether the use of traditional techniques (print media, billboards, and TV commercials) by microfinance banks to address poor are sufficient or not?	New question for financial inclusion concept.	To know the marketing efforts made by MFBs are sufficient or not.
Q# R Financial inclusion aims to include majority of poor and to extend the low income unbanked population of Pakistan then they should focus on the advertising it through nation's television (PTV)?	Currently is focus to small extend by the Mobile Money Operators (MMOs).	New question for the MFBs.
Q# S In Pakistan the proper marketing campaigns that involve poor or low income segments by various microfinance Institutions/banks are performed by them or not?	New question for financial inclusion.	To know from managers whether such campaigns are used by the MFBs while communicating with their audience.
Q# T	(NBP, 2015-2020), Telenor Group (2012-2020).	To know the reason behind making these partnerships.



<p>What you think the strategic partnership or alliance such as ('Telenor microfinance bank and tameer bank' &amp; the NBP, 'Telenor Group and Telenor Microfinance Bank / tamer bank') will help in boosting the level of financial inclusion?</p>		
<p>Q# U Marketing services except few dominate players of market such as Easypaisa, Jazzcash, and U-paisa all are failed to even recognize by their names such as PayMax, MCB lite, Oman Microfinance, and so on. What is your opinion to this statement?</p>	<p>Brand recognition for financial inclusion in Pakistan. Comparatively new question related to this study context.</p>	<p>This question is to bring the attention of the academics initially to recognize that specifically poor audience are not aware with the existing brands providing the formal financial services then how the concept of financial inclusion will be communicated to them.</p>
<p>Q# V Why financial inclusion is mostly marketed and provided by the microfinance banks in Pakistan?</p>	<p>Asian Development Bank ADB Institute Economic working papers (2010 &amp; 2015), Ayyagari &amp; Beck (2015), Beck et al. (2007), Diamond &amp; Dybvig (1983) and Dupas, Robinson, (2013).</p>	<p>This concept has roots in economics and is provided by linking to as financial services. Hence it aim to know what interviewed person's opinion is towards this statement.</p>

Next For maintaining the *case protocol* we had followed following considerations;

- ❖ Research questions are designed properly as highlighted in above section,

- ❖ Research method is described above in detail and is lead by flowing section as well,
- ❖ For permission concern, preplanned timing schedule is used to set the interview timing and only one time data is collected from participants and interview time space is between 3-4 hour conduction period,
- ❖ For ethical concerns; focus is on getting the permission from the participants to highlight their names except one all allowed, and for this one participant name is not mentioned. Next the concern topic is described to the participants before starting interview.

For *Field phase*, every content of provided information is written and considered important for interpretation. From rest of all interviews important points are written in the report separately. Next for *interact phase*; answering of research questions is performed whiling using collected data and meeting observations. For using different platform is to create triangulation of associating different categorization as what was highlighted by Yin (2009). Further multiple resources help the researcher to create richness and depth to conducted study (Flick, Kardoff & Steinke, 2004). After performing thematic analysis results are given and discussed that highlight the fourth phase of conducting cases study as *reporting phase*.

### **3.5.4 Methodological Aspects:**

#### **3.5.4.1 Purposive sampling:**

In this study the selection of experts for interviewing is based on purposive sampling criteria. Because purposive sampling is “used to select respondents that are most likely to yield appropriate and useful information” (Kelly, 2010, p.317). It further provide a way of identifying and selecting cases that will use limited research resources effectively (Palinkas et al., 2015). In this study the design interview questions require professionals to answer because prevailing issue of low financial inclusion is not clearly known by the micro-finance institutions who are formed to address this issue and increase awareness. Second objective is to grasp the knowledge concern relate to suggesting neuromarket approach. Third objective is to grasp the various important market stimuli that should be used to build awareness regard financial inclusion. The concerns for adopting purposive strategy are based on assumption given by Mason (2002), Robinson (2014) and Trost (1986) as “given the objectives and aims of study, specific kind of professionals may hold different and important views about idea and issues at question and hence need to be included in sample” (Campbell et al., 2020, p. 3). This strategy is used because it help to move away from

random form of sampling and form strategic focus to make sure that specific participants who are required to be included are considered in the research study.

From focusing of ontological (Relativist approach) and epistemological (Subjective focus) help to align the process selection for sample. Focus of study is to grasp the stimuli (Subjective opinions) from organizations that are pioneers in providing services to Pakistani market. Thus strategy for sample selection should be integrated into overall logic of associate study (Punch, 2004). Next the rationale for sample identification and selection require alignment concern of study with ontological and epistemological perspective (Campbell et al., 2020). In this study, sample focus over small size that covered dominant commercial banks who initially involved in providing financial inclusion services in coordination with State Bank of Pakistan (SBP). Hence we used purposive sampling to achieve objectives of this study. In qualitative study usually small and purposively selected samples are employed that help in increasing the depth of understanding the study context (Campbell et al., 2020; Miles & Huberman, 1994; Palinkas et al., 2015).

The microfinance institutions and banks are not successful in achieving the penetration among the adults regards promoting and creating awareness of financial inclusion services. Initially commercial banks focus over providing services for financial inclusion but due to burden of work is shifted towards MFIs and MFBs. Commercial banks just shifted the work load over to microfinance institutions but exact goals and requirements are not communicated properly to them. Entire focus is over concentrating towards profit generation. They require proper directions to implement concern operations that will help them to achieve the require goals. When they are not clear about their goals how they will be able to communicate their message accurately. In addition to commercial banks telco industry is also inclined towards this platform by issuing license to them. Hence branchless banking also enter to facilitate this process but output and results are not satisfactory. This study is conducted to grasp various important market stimuli that can help these institutions to solve concern issue. Therefore this study utilized purposive sampling method based on *stakeholder sampling* termed as Matrix sampling method (Ovretviet, 1998; Reed, Procter & Murray, 1996).

#### **3.5.4.2 Eligibility criteria for Sample selection:**

Stakeholder sampling method facilities the concerns of stakeholders aim at selecting the sample size that can focus over providing solutions to study problem (Campbell et al., 2020). It

either allow the stakeholders to select the participants or approaching through profile searching of participants (Palinkas et al., 2015). This study is focused over approaching experts through searching their profiles based on their experience and skills. The stakeholders considered for this study include MFBs, and MMOs. *Population* associate to this study include all commercial banks and mobile money operators located in Islamabad Pakistan. For interviews participants are selected on basis of experience and skill because design structure of interview questions can only be answer by experts. While incorporating stance of strategic partnership in terms of highlighting the importance and requirement of market system function only Telenor group is selected. Like commercial banks Telenor is pioneer in providing strategic partnership concept to Pakistan microfinance banks. *All experts having experience more than 14 years and except one all other participants have experience of working for bringing formal banking account penetration.*

#### **3.5.4.3 Descriptions of participants:**

2 participants (Main Mateen Nasir and Farhan Aqbar) are from NBP recently working for project of strategic partnership with Tameer (Telenor group) microfinance bank. Next 2 participants (Ali Abrar Qureshi and Faheem Ahmed Qureshi) are from Askari bank. This bank initially provide financial inclusion services with introducing PayMax institution but finished its services after short period of time and maintain focus over consumer banking. That why need to search out reason for finishing this institute. 1 participant (Saeed Ahmed Khan) is from SBP and is selected as all strategies or programs are set by the involvement and permission concern from SBP. 1 participant (Muhammad Iiyas) is from ZTBL and is selected due to his experience from different provinces of Pakistan (Baluchistan, Karachi, and Islamabad). 1 participant (Javed Iqbal) from Meezan bank is selected. This bank is pioneer among introducing Islamic banking system and currently focusing over changing negative perception among customers. This participant is considered to find out his opinion regard prevailing issue and to find what he recommend to change existing negative perception among audience. For MNOs 1 participant is selected from Telenor microfinancing institution. Telenor is pioneer in introducing financial inclusion services. They operate over focusing on their research center in Norway in association with NHH (Norges Handelshoyskole) for service innovation and spreading banking system across globe. It even work for improving financial inclusion environment around globe. They form strategic partnerships with Tameer microfinance bank and recently with NBP. Their advertising strategic are much better than rest of other competitors and always gain the benefit of being first in market.

Scheduled interviews are conducted at associate offices of participants located in different territories of Islamabad. While asking questions every said information is written on question sheets and on personal diary. Time bracket for all interviews varies between 3 hr. to 4 hr. time period. Initially data is collected in raw form that compose of all provided information and observation during conducting interviews. Which is then clarify according to the requirement of study which serves as *edited* form of transcription. Edited form of transcription consists of clean set of data associate to subject matter of study. According to Daniel Smith (2018) edited transcription is also known as clean verbatim transcription. It is committed to preserve meaning of text. It will not paraphrase text or change its meaning in any way. Hence it is used to provide clear idea about interviews by retaining its original meaning. Total 8 detailed interviews are conducted to report the findings to stakeholders via thematic analysis. Interview timings are considered but are not recorded. Interview timing and experience of participants are as follow;

**Table 3.1: Interview Timings and Details of Experts.**

<b>Participant's name</b>	<b>Post</b>	<b>Interview timings (Hours)</b>	<b>Experience</b>	<b>Approaching through</b>
Main Mateen Nasir	Branch Manager (NBP)	4 hr.	17 years	Searching profile.
Farhan Aqbar	Branch Manager (NBP)	3 hr.	15 years	Searching profile.
Ali Abrar Qureshi	Branch Manager (Askari Bank)	3 hr. & 30 mins.	17 years	Searching profile.
Faheem Ahmed Qureshi	Senior Vice President (SVP) Head office (Askari bank)	4 hr.	28 years	Searching profile.
Saeed Ahmed Khan	Executive Director (SBP).	3 hr. &: 20 mins.	30 years	Searching profile.
Muhammad Iiyas	AVP/ MCO (ZTBL)	3hr. & 30 mins.	27 years	Searching profile.
Javed Iqbal	Branch Manager (Meezan Bank)	3 hr.	14 years	Searching profile.
Participant (A)	Telenor MFI	3 hr. & 17 mins.	21 years	Searching profile.

### **3.6 Thematic Analysis:**

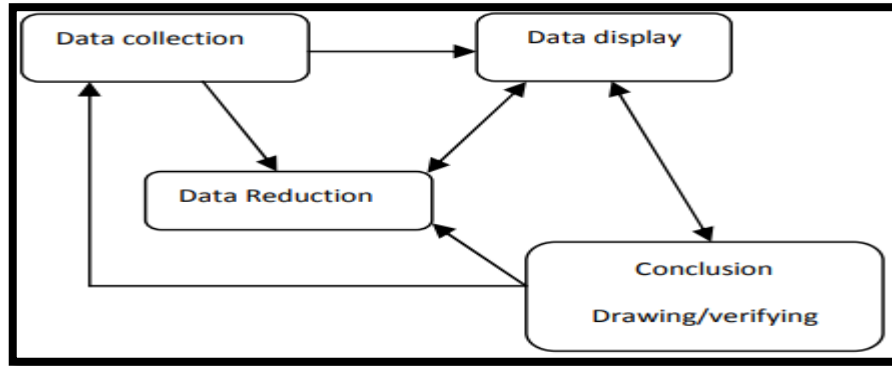
The concept known as “framework” has been originated from concept of “Thematic Framework”. Which aims to organize and classify data according to generated themes along the process of analysis. Generated themes are then align with similar emerging concepts that are placed under few specified broad categories. The essence of using this technique is that every study has

its own distinct framework that consists of various study themes, which are further subdivided into subthemes or various topics within single theme. This happened by using the concept of familiarization along with raw data and cross analyzing the themes and subtopics continuously till the comprehensive understandable output is achieved (Ritchie et al., 2003).

The following mentioned indexes are formed from initial conducted interview synopsis. Where various opinions forms themes within data set. Initially 22 questions are placed in random form without knowing any similarity and differences within data set. Thematic analysis provides systematic element to data set as it indicate the frequencies of appearing themes with whole content (Alhojailan, 2012). Questions initially assign alphabetic numbers from A-to-V related to describing all issues face by financial inclusion and opinions related to suggested neuromarket technique. After placing collected data into matrix base format (by using excel sheet) help to grasp the similarity indexes within transcripts. Accordingly qualitative research require understanding and collecting diverse aspects and data. Use of thematic analysis gives an opportunity to understand the potential of any issue more comprehensively (Marks & Yardley, 2004). From interview synopsis data is refined again on placing over next sheet. Where total 22 questions are subdivided into set of seven indexes. Among 22 questions two questions are further divided into two such as H as H' and F as F'. Responses of participants help to further separate them. According to Ritchie et al. (2003) irrespective of any method used as facilitative tool to highlight the design, for qualitative data the thematic analysis can be performed as it provide clear guidance to originate themes and ideas.

### **3.6.1 Thematic analysis model:**

After conducting interviews data is analyzed by using the model description of this process. This model is based on three interlink streams after data collection as, “Data reduction and data display and data conclusion” (Alhojailan, 2012; Miles & Huberman, 1994).



**Figure 3.1: Thematic Analysis Model**

**Note.** Taken From Thematic analysis. A critical review of its process and evaluation, by Alhojailian, 2012, p. 41.

For Data reduction, initially collected data is combined by writing summaries, writing important quotations or through displaying over tabulation form (Miles & Huberman, 1994). In this study, collected data is initially displayed over Microsoft word where important points or paragraphs of transcription is used. After preparing and organizing data, the entire document is read many times to depict the patterns of originating themes align to study content. Researcher should “get a feel for text by handling the data multiple times” (Ryan & Bernard, 2003, p. 11). Next the originating themes within text is highlighted from bulk of collected data. Important sentences or text from rest of data need to be separated out from collected bulk (Ryan & Bernard, 2003). After data separation the selected sentences are broken down into smaller segments or themes (Ryan & Bernard, 2003). Therefore we separated the important aspects into segments or themes such as; “*First question (A) is related to describing definition of neuromarket to know the level of familiarity towards the concept. Therefore theme assign to this question is as familiarity towards neuromarket approach*” and similar aspect is given to all other questions.

Next for data display, we used excel sheet where matrix base format is formed. Number of techniques can be used to display data includes tables, graphs, and maps of categories. Microsoft word or excel is used in terms of forming tabulation or matrix base format that help to grasp easy visualization (Miles & Huberman, 1994; Yin, 2010). From interview synopsis the gathered sheet help us to form generating indexes and further subdivisions within each index are identified. This study is aimed to filter the important aspects as the study stimuli from experts. Then separate sheet is formed based on entering the rest of stimuli. Both similar stimuli and different suggested stimuli

are written. Starting from interview synopsis various indexes and stimuli are abstracted help us to form the defined categories of studies. Indexes of this study is formed as follow;

First index related to suggesting technique of Neuromarketing is named as; “State of Awareness towards Neuromarketing approach”. Where three questions as “A, N, and P” are placed. Questions A “Level of familiarity towards Neuromarketing concept”, N “Decision making (Conscious & unconscious involvement), and P “Use of Neuro-Marketing technique (company association)” are asked to know opinions of experts. *Second index* is to know the awareness towards financial inclusion by adults and is named as; “State of Awareness towards Financial Inclusion by Adults”. Where two questions as “C and J” are placed. Question C “Using Services without having awareness” and J “Salaries through banks by Government” are asked.

*Third index* is related to get the opinions related to existing platforms for Financial Inclusion and is named as; “Existing Platforms for financial inclusion in Pakistan”. Five questions as “G, H, H’, I, and V” are placed here. Question G “Agent Banking for Financial Inclusion”, H “Quality of Information that Agents provide”, H’ “Customers trust on Agents”, I “Increasing Marketing Platforms”, and V “Economic or banking issue” are asked. *Fourth index* is to find presence of market system function and is named as “Existence of Market System Function in Pakistan”. Three questions as “E, L, and T” are placed. Question E “Focus of MFBs on Market System Function”, L “Granting Local training”, and T “Strategic Partnership” are asked. *Fifth index* is to find causes behind not opting behaviors towards having formal bank accounts and is named as; “Causes for not having formal bank accounts”. Three questions as “M, F, and F” are placed. Question M “Conservative thinking and psychology of audience”, F “Communication gap of supply and demand”, and F’ “Other highlighted gaps” are asked.

Sixth Index is to find link between neuromarketing and financial inclusion and is named as; “Link between Neuromarketing and Financial Inclusion”. Three questions as “B, D, and O” are placed. Question B “N-M techniques can bring out issue of low inclusion”, D “Investigating emotional/ unconscious aspects can highlight root cause to practitioners”, and O “Market Stimuli from expert opinions” are asked. *Seventh last index* is to discuss the marketing platforms used by MFBs and is named as; “Existing marketing platforms for financial inclusion by MFBs”. Four questions as “K, Q, R, and U” are placed. Question K “Marketing messages for poor”, Q “Use of



traditional techniques”, R “Should focus on PTV platform”, and U “Knowing only few dominant players of market” are asked.

Thematic analysis can be performed both manually and through using software. Software such NVIVO and others are used especially when it is hard to manage the interview data like respondents are more in numbers along with assigning codes to the themes. But for manual studies conceptual framework or index is used that depend upon the conceptual capacity and creativity of the analyst to align and associate themes within data set (Ritchie et al., 2003). Using software is not helpful for every situation (Alhajailan, 2012). Because “*Software requires not only careful labeling but also an organized system of filling collected data in order to ensure that it is removed from files that are easily set in a new text i.e. recontextualised*” (Alhajailan, 2012, p.39). Because of this aspect we used manual interpretation while using thematic analysis.

## CHAPTER 4

### EMPRICIAL DATA AND ANALYSIS

#### 4.1 Empirical Data:

The empirical aspect of research is based on the observations and assessments of phenomena by the researcher. Next the data or observation gather can be used to associate towards existing theory or as against hypothesis but result of the study is based on real life assessments (Voss, Tsikriktsis, & frohlich, 2002). This study is based on suggesting market stimuli highlight by field experts. By using neuromarket technique it will help practitioners to grasp the real picture of brain insights that are main reasons behind produce responses.

This study aimed to highlight the marketing issue of financial inclusion. In addition to highlighting this issue it will help practitioners to consider the linkage between financial inclusion and neuromarketing approach. Neuromarket is originated from the application of neuroscience which provide links between other fields related to consumer studies (Klinckova, 2016). Before opting this thesis I myself was not aware with the terminology of financial inclusion although having formal bank account. Pakistan is the developing nation which is consistently making efforts to boost economic position of state.

This concept of financial inclusion is among the major aspects of every state economy (Mialou et al., 2017). Currently low inclusive level is result of numbers of issues and barriers but this study is focus on the communication gaps between the service providers (MFIs, MFBs & MMOs) and the target audience (Poor & Low income audience). The current prevailing marketing strategies are not enough to boost the level of inclusion and if this market continuously aimed to focus on traditional strategies without any changes, will lead this issues for longer period of time. Thus we aimed to provide link of neuromarket techniques with the marketing platform that will help to diagnose the main issues, misconceptions, and rigidness of audience while using such financial services. Total 8 detailed interviews are conducted with managers of major dominant commercial banks in Islamabad Pakistan such as State Bank of Pakistan (SBP), National Bank of Pakistan (NBP), Zarai Taraqati Bank (ZTBL), Askari Bank, and Meezan Bank. For having idea of MNOs we select Telenor Group. The purpose of interviewing the commercial bank is that they

are considered the parent companies for various Microfinance Banks and for selecting Telenor is due to pioneer in introducing Mobile banking in Pakistan and having strategic alliance with banks aimed to increase level of inclusion in Pakistan through this platform. Currently operating MFBs are not focusing much over the marketing strategies or messages instead focus on earning profits. As reported by the World Bank that “50.5 Percent have access to serves which include only 14.3 percent as formally served, then 45.5 percent are served informally to organized sectors, and remaining sector is financially excluded from formal system” (Nenova, & Niang, 2011, p. 9). But due to some implementations such as from MFBs different branchless banking is added which bring the increase but still not up to required level. Next section is focused on the explaining indexes “Conceptual framework and themes” (Ritchie et al., 2003). Its descriptions have been formed after interviewing experts which provide the idea associations with in the topics of questions. Which has been described separately in above section. Responses of experts help us to set randomly asked 22 questions with separate 7 indexes and from all selected indexes we had bring out all stimuli. One separate question is asked for market stimuli by linking both fields of association that help in assessing categories. Which is used to suggest for the future implementation. All the managers have different opinions regard prevailing issue of low inclusion. All the interviewed managers having experience of 14 years and more.

Initially the interview questions are formed based on literature and observations associate to the prevailing issue of low inclusion. The operationalization for the selected questions is already described. The study was aimed to identify various market stimuli needed to investigate the marketing issue of low inclusion. But there exist series of barriers in even directly abstracting the stimuli from experts because the state of knowledge associate to neuromarketing concept in Pakistan is very low. For practical orientation hardly any practical study related to the use of these techniques are present (Rehman et al., 2016). Literature indicate the presence to very small extend by just academics or use of the most basic techniques such as eye tracking, mouse tracking or facial muscle coding (Brain image, n.d.). Hence to build the interview environment various concerns are taken into considerations such as to grasp the idea related to the financial inclusion issue and prevailing platforms that exists for increasing level of inclusion. For grasping idea that prevail inside brain of targets we suggest to link it towards measuring responses through use of neuromarket approach. It also consists of asking few questions that aimed to highlight the existing innovations taken by government such as providing license to the third parties by PTA to boost

level of MMOs. For agent networking, it aimed to create link between the concept of financial inclusion and techniques of neuromarketing. Therefore when addressing the market stimuli they viewed it even through prevailing platforms within markets. Various indexes have been formed from interview transcripts as;

1. State of awareness towards Neuromarketing approach,
2. State of awareness towards Financial Inclusion by adults,
3. Existing Platforms for financial inclusion in Pakistan,
4. Existence of market system function in Pakistan,
5. Causes for not having formal bank accounts,
6. Link between Neuromarketing and Financial Inclusion,  
Existing marketing platforms for financial inclusion by MFBs.

## **4.2 Descriptions of indexes:**

### **4.2.1 State of awareness towards Neuromarketing approach:**

For state of awareness related to neuromarket concept only 2 participants out of eight have a level of familiarity with this concept, all the rest having very less familiarity. Although rest of them are familiar with the concept of cognitive process but idea of associating these techniques to solve marketing, financial, economics, and other social concerning issues was not there. Highlighting the technique use by IBM to address different diversify groups of customers through computer system is to provide idea of its use. They inbuilt the system software comprising of almost all languages. As which language the customer speak the reply will be in that particular natural language. This system was inbuilt with the neuromarket tracks that grasp the attention of subjected customers while displaying various ads, products and descriptions. While noticing the screen the customer's pupil dilation process is captured. Which will help back associations to capture the preferences of customer. The aim here is to ask the experts to figure out whether they can position this market towards using such techniques to measure the brain insights.

Among the eight audience all of them agree that it will produce positive response but one expert belonging to ZTBL and other to SBP added who can do this. Which highlight the requirement for the cognitive learning and training. Remaining 6 experts focus on solving the language barrier concern. The story behind this example is to provide easy, useful and convenient path to audience that they can become the part of subjected environment. Which will help

practitioners to grasp their actual intake about the services. In short, currently practical aspect need to be more towards adapting technology phase along with stance of neuro-studies. This will be little hard for starting but with time it will bring a lot of benefits. Even squeezing the routine expenses that is continuously spend over the marketing aspect.

**Table 4.1: Index 1.**

<b>Index (1), Qs- A, N, &amp; P</b>	<b>Participants know the concept and its significance.</b>	<b>Participants less familiar with the concept.</b>
<b>A. Familiarity with NM approach</b>	2	6
<b>N. Conscious &amp; Unconscious mind involvement while making decision.</b>	4 considered the involved of both in process and describes their opinions accordingly.	1 totally reject the involvement of unconscious mind while making decisions, and remaining 3 associate less involvement of unconscious mind while making decisions.
<b>P. Use of NM technique by IBM.</b>	6 participants positively considered its importance and requirement for such techniques to enter into this market.	2 Agree but they are not sure that such techniques can be managed by the practitioners in this market.

**4.2.2 State of awareness towards Financial Inclusion by adults:**

Next the stance of knowledge association of targets for whom the concept of financial inclusion enter the market is asked by experts. Because number of adults having bank accounts are not familiar with this concept. All the experts interviewed answer that they are strongly agree with this statement and even highlight the various MFBs that are introduce to spread this phenomena are also not clear about the concept of financial inclusion. Instead they all are focusing on increasing their circles, having high profit margins and key investors. They are formed to facilities the low income and even poor audience.

Next government implementation of providing salaries to employees through bank platform is aimed at creating awareness towards financial inclusion. One expert from NBP depict that it create level of awareness and even opening doors to market other banking products such as loan and insurance but other expert from NBP highlight the aim is to increase the level not the awareness. Next same opposite opinions are from experts from Askari bank, where one highlight that aim is to bring safety and security concern and other is to create awareness. Next from ZTBL and Meezan bank experts highlight that aimed is to create awareness. From Telenor the concern for safety and security is also indicated. From SBP, it is highlighted that aim is not at creating any awareness but is to increase the level of inclusion.

**Table 4.2: Index 2.**

<b>Index (2), Qs- C &amp; J</b>	<b>Response of Participants inclined positively with the statement.</b>	<b>Response of Participants inclined negatively with the statement.</b>	<b>Other opinions.</b>
<b>C Using services without having awareness to FI.</b>	All the 8 participants strongly agree with the statement.	0	
<b>J Salaries by banks through government.</b>	2 participants consider this contribution as the way of increasing awareness.	4 participants consider this contribution as the way to increase inclusion not the awareness.	2 of them consider it for the purpose of safety and security.

#### **4.2.3 Existing Platforms for financial inclusion in Pakistan:**

The initial question here was the presence of agent banking as it help out to bring increase in level of inclusion. According to all experts it has provided very dominant shift in behaviors of target audience. Because it is an easy and convenient way, where people alike are easy to communicate the way they want and without any documentations the exchange occurs. This was the main reason why authorities even not creating detail hurdles in making the process

complicated. Still one expert from Askari highlighted the issue unless the proper documentation patterns of population is not available, it will create problems in proper registration of population and currently lead by the biggest issue for digitalization of this platform. From trust and quality concern prevailing conditions are accepted by banks to trust agents on basis of commission concerns and due to customer acceptance towards this platform. For increasing the platforms will increase the utilization level instead of creating much awareness, according to majority of experts. For consideration towards Financial Inclusion as the economic or the financial aspect. Only one expert bring it with financial all the rest with economical. Why marketed by the MFBs, one answered it occurred randomly, one answered it is due to low trading concerns of the targets thus is marketed through MFBs, one said it is because of established focus of government, and one answered it is due to shift the initial burden over us and then is shifted to MFBs.

**Table 4.3: Index 3.**

Index (3), Qs- G,H, H', I, & V.	Participant's response summary in favor of these statements	Participant's response summary in negation of these statements	Total different responses.
<b>G Agent banking for Financial Inclusion.</b>	8 participants agree that it create increase in the level of inclusion.		
<b>H Quality of information that agents provide.</b>	3 agree as Reputation of agents, secure transactions, and for commission concerns quality of information exists.	3 answer that quality of information is not consider for getting information from agents.	2 highlight that for getting refine information agents should be trained.
<b>H' Customers trust on agents</b>	5 agree as People trust people alike, commissions concerns, for safe transactions it is	1 enter, for this customer feedback should be considered.	2 totally varied responses.

	considered that they trust them.		
<b>I increasing marketing platforms.</b>	5 agree that it increase both utilization and awareness.	3 indicate it increase utilization level not the awareness.	_____
<b>V Economic or financial issue.</b>	7 consider it is economic issue but is marketed by banks.	1 entered it as financial issue.	_____

**4.2.4 Existence of market system function in Pakistan:**

As described in literature the focus and importance of boosting inclusive system is based on this approach. Here asked few questions to know whether this market is aware with this system or not. Only one expert among all from Meezan bank highlighted its presence, all the rest rejected its presence. It focus on certain supporting functions, rules and norms that should be balance between the supply and demand of this market. The opinion of the expert from SBP denied its requirement in the market for building any inclusive environment. Similar opposite opinion is given by SBP for introducing any granting local centers in Pakistan because it required a lot of resource and time to conduct. One interesting output is given by ZTBL expert that this can be happen if focus on training the agents, which can further transfer learning to market. All focus on refusing the presence of MSF but all inclined towards one very supportive aspect of this system the intervention towards strategic partnerships. Currently this trend is captured by Pakistan and various partnerships have been formed. Positive results will occur when focus will be over the quality instead of just focusing over profits margins.



**Table 4.4: Index 4.**

Index (4) Qs, E, L,T	Participant’s answer in favor of its presence	Participant’s answer in negation of its presence	Varied responses
<b>E. Focus of MFBs on Market System Function</b>	1 indicate its presence.	7 negate its presence and 5 indicate the need of its presence.	Out of 7, 2 state that it is not required.
<b>L. Granting local training centers.</b>	0	6 indicate its requirement in their own wordings.	2 state that it is not required.
<b>T. Strategic Partnerships.</b>	8 participants indicate its presence and even its importance.	_____	_____

**4.2.5 Causes for not having formal bank accounts:**

Here the purpose was to identify various causes behind the conservative thinking and psychology of audience towards this prevailing issue. From interviews various outcomes are highlighted such as; *fear of taxation, issues of convenience, Purchase medium is cash so poor audience can maintain in hands then why they should opt different systems, To avoid to enter into tax net, People already availing services have no extra benefits of life, Trust and confidence is below zero, Imposed by US as a new devil like IMF, Skeptic attitude of people towards these institutions, Pakistan family base system is also very important issue if only one has account rest of all depend upon it, not uniform capital ownerships, and also gender discrimination.* It reflects that existing psychology and perception stance towards availing financial inclusion services is somewhat negative and need to be address in a way that it will help in changing such mind sets. For considering the core issue of communication gap between supply and demand is not accepted as the core issue by all participants. All considered it as secondary issue. Introduction of various cellular platform reduce the communication gap but capacity and ability of concern audience is somewhat questionable here.

**Table 4.5: Index 5.**

Index (5), Qs M, F & F'	Participant answer in favor	Participant answer in negation	Varied responses
<b>M. Conservative thinking and psychology aspect.</b>	8 agree as fear of taxation, distrust, no extra benefit, USA presence, and change family base system create this issue.		
<b>F. Communication gap between supply and demand is core issue.</b>	0	8 agree it is issue but not the core one.	
<b>F'. Other highlighted issues.</b>	5 highlighted as; issue of Need recognition, message delivery to audience, internet issue, education issue, and mind set issue.	3 haven't describe any other cause.	

**4.2.6 Indicate link between Neuromarket and Financial inclusion:**

Direct questions related to procedural use of nueromarket techniques are not asked because of less familiarity in the market. These techniques have roots in medical filed such as; “Facial Electromyography (fEMG), Skin Conductance (SC), Neurotransmitter (NT), Electrocardiography (ECG), Positron Emission Tomography (PET), Functional Magnetic Resonance Imaging (fMRI), Electroencephalography (EEG)” hence will not make responses of audience clear. For this reason we associate these techniques with the perception and psychological stance that help to grasp the idea. Where they considered use of such technological aspect to diagnose the reason behind this issue aside from prevailing statistical focus. All the participants agree that it will produce change

but every one as the stance towards its training and experimental trials into market. Next the important question is to ask them about what market stimuli will be needed to associate with this technique to solve the negative perception towards financial inclusion.

**Table 4.6: Index 6 (Q “O” is described in below Tables).**

Index 6 Qs B, D & O.	Participant answer in favor	Participant answer in negation	Varied responses
<b>B. Can NM technique help to solve this issue of FI</b>	Out of 8, 6 strongly agreed and 2 agreed.	_____	_____
<b>D. Studying emotional aspect can help practitioner to find the root cause of this issue.</b>	All of 8 participants agree that it can help to solve.	_____	Out of 8, 3 highlight few concerns as; required training in this, initially need to change the terminologies, and last as to perform experimental trails.

**Table 4.7: Market stimuli from following Banks “O”.**

Q O-	NBP (1)	NBP (2)	Askari Bank (1)	Askari Bank (2)
<b>Market Stimuli</b>	1. Convenience, 2. WOM, 3. Identify need instead of inducing your created need, introducing banking with Local language orientation base of employees.	1. Safety, 2. Convenience, & 3. Changing banking environment.	1. Changing banking environment, 2. For language concern hire local persons, 3. In ads show less furnished houses along with adding less expensive mobile phones, & 4. Basic courses for financial education in schools.	1. Uniform internet connectivity (Convenience, Safety, & Comfort), 2. Economic & finance basic course in schools, 3. Official social media websites (Institute administration aims to bring trust & ease), & 4. Radio cellular phone (internet radio, intensive form of communication).

**Table 4.8: Market Stimuli from following Banks “O”.**

Q O-	SBP	ZTBL	Meezan Bank	Telenor
<b>Market Stimuli</b>	<ol style="list-style-type: none"> <li>1. Changing existing terminologies,</li> <li>2. Building trust along with convenience, &amp;</li> <li>3. Uniform internet accessibility to remote areas.</li> </ol>	<ol style="list-style-type: none"> <li>1. Training through agents,</li> <li>2. Trust building,</li> <li>3. Introduce local banking environment.</li> </ol>	<ol style="list-style-type: none"> <li>1. Building trust level.</li> </ol>	<ol style="list-style-type: none"> <li>1. Should use different marketing messages display along with easy understanding such as bright and dark color themes as what is done by Tarang and gala recently,</li> <li>2. Need recognition is required,</li> <li>3. Marketing should focus on addressing that financial products is easy to managed, uniform connectivity is very important.</li> </ol>

#### **4.2.7 Existing marketing platforms for financial inclusion by MFBs:**

The purpose of financial inclusion is to include financially excluded part of society where majority of audience belong to lower middle and poor class. MFBs are introduced into market for basic two purposes, one is to share the burden of work with commercial banks and second is to create environment suitable and comfortable for targets. But advertising strategies used by MFBs didn't highlight environment of poor audience. Few experts give example of good advertisement done by Agricultural products such as for Green Tractor but was happened because government want this. Few MFBs are focusing on providing small credits or loans for starting small schools in villages as done by Khushhali bank and also sponsoring few local football teams as by National Rural Support Program Bank (NRSP). All efforts are written in their annual reports and are not part of any proper advertising campaigns. Instead of this Mobile banking is advertised better than MFBs as especially by Easypaisa for poor and Jazzcash for little better segments. Hence need for this is even highlighted by all the experts.

Microfinance institutions are even fail to use proper marketing campaigns. The use of traditional techniques are also not sufficient for addressing poor society. The week marketing focus even lead to recognition of only few players of market and especially this trend is more towards the mobile banking operators such as Easypaisa, Jazzcash and Upaisa. Few institutions are close up due to mismanagement of their operations such as PayMax. According to World Bank, banking industry of Pakistan make consistent increase in profit margins but their emphasis over quality and

knowledge concern is very low. According to experts Pakistani people usually have less interest to know about banking transactions and processes while comparing it to other similar states.

**Table 4.9: Index 7.**

Index (7), Qs K, Q, R & U.	Participant's responses in one direction.	Participant's responses in opposite direction.	Varied responses
<b>K. Marketing messages for poor.</b>	All of 8 respondents suggest the focus is not on poor especially by MFBs, although MMOs bring this trend.		
<b>Q. Use of traditional techniques.</b>	All of 8, focus is over not sufficient.		
<b>R. Should focus on PTV platform.</b>	Out of 8, 5 recommend it as strongly agree while 3 as agree.		
<b>U. Knowing only few dominant players of market.</b>	All responses are favoring this aspect that only few are known even by their names.		

### 4.3 Important points from conducted interviews:

Following important points are highlighted by experts during interview.

- ❖ Rest of all experts related to field of banking don't have clear idea or familiarity with the terminology of neuromarketing. Although majority of them were aware with the concept of neuroscience and its implementation towards solving biological and scientific issues. Linking of financial inclusion with this aspect is particularly new to them.

- ❖ The basic purpose of introducing inclusive environment is to build system on basis of white money and excluded all rest of illegal sources of money presence in Pakistan.
- ❖ SBP become part of Maya Declaration in 2011 to boost level of financial inclusion by becoming part of global players and introduced NFIS strategy to boost level of inclusion while basing on 2025 vision of Pakistan. But still the overall increase was not as required or even what they estimated.
- ❖ In case of financial inclusion the most basic issue is convenience to the target audience. At beginning rural people safe money at home due to distance issue. This issue was minimized by entry of EasyPaisa or you can say with introduction of mobile banking concept. Where audience are not forced to complete any documentation to open an account or to pay any maintenance fee. They don't have to face typical banking environment such as; telling financial history details. Instead of this they just have to visit the shop and communicate with person alike.
- ❖ NBP had also introduced Advance salary cases then Loan for Zamine policy to facilitate low income audience. But institutes have to face issues at recovery time because of late resubmission along with tolerating subsidize rates. Such as 13% is provided by NBP but 24% is provided by Jazz at same time. Subsidize rates further affect the economic growth.
- ❖ The most important aspect is to create easy access for target audience. If MFBs focus on building access through using typical marketing strategies will never provide require results within small period of time. All poor and low income audience are illiterate for understanding such financial terminologies. Even majority of educated audiences are not familiar with the financial terminologies then how these people will be able to understand. Majority of service providers aims to just provide services to known audience with enough resources but for poor or low income they don't make the require efforts. The main reason is prevailing system within Pakistan. Here majority of illiterate audience know how to use social media and mobile phones without any training. That's happen because of association with the people alike.
- ❖ By creating positive word of mouth (WOM) you can boost level of awareness among such audience. In Pakistan the building of microsystems for advertisement are require which will focus on same audience to same audience such as poor to poor and rich to rich message communication. One of major problem of this country is the focus of policy makers. Here policy makers focus for maximum 10 years while deciding any policy but for developed

nations they focus for making policy for more than 50 years. The link of neuromarket should be associate to this issue not just for communicating audience but also should be used to build market system function for both supply and demand side problems along with including regulatory framework.

- ❖ For market system function, there is no such system in Pakistan. These globally presented systems and functions are not opt by Pakistan and this is one of the major reason we stand for behind the developed nations. Financial inclusion is boosted specifically by mobile banking system which again is somewhat dependent on internet issues and registration of many people to have ID card authentication. This mobile banking even contributed to awareness of microfinance banking system.
- ❖ For local training centers initially the people who design the system of this financial inclusion need to be educated.
- ❖ Due to burden of a lot of work on commercial banks it is transfer to MFIs and MFBs as the name indicate the micro financing aim to target the small groups of society. That's why this channel is introduced but currently this system is not stable.
- ❖ For Agent banking people trust them without presence of any banking system because service providers are like them. Quality of information provided by agents can't be 100 % trusted because the game is all about commission.
- ❖ Training centers are compulsory to introduce to market by MFIs such as done by Commercial banks for agricultural microfinancing. Even roadshows are designed lead to create awareness and knowledge towards this platform.
- ❖ For using different market platform is not aimed at creating awareness towards financial inclusion it is something more towards commission earning. Currently focus is towards digitalizing the financial inclusion aspect but unless the rest of included audience is not properly documented will create issues for economy. Because unless proper documentations you will not be able to quantify it. Next till the time of presence of physical cash you will not be succeed to boost inclusive environment.
- ❖ Like all basic courses for education we should enter basic courses of economics and finance to primary and secondary education system. Currently number of primary schools are providing ease to poor audience even through credit by MFIs. They should include the courses of finance to educate students just as science, math, Arabic, English and more. Funding to these schools

and to agriculture sector by MFBs (e.g. Khushhali Bank, NRPS) are written in their annual reports which the target audience are not capable of reading.

- ❖ Neuromarket techniques will help the practitioners to identify need of targets instead of inducing yours.
- ❖ Ads message for rural area welfare just focus to extend for agricultural products but for financial inclusion it is importantly recommended to be consider. Like NRPS provide school loans as micro-credit, village football matches are sponsor by them and even khushhali is currently focusing on such events but is generally not known by the audience.
- ❖ Conservative thinking and psychology aspect for entry to banking system is because of four main reasons such as;
  1. To becoming part of financial inclusion, we will be enter to tax net segment.
  2. Why should we enter because what are the facilities provided to existing people in formal banking system such as any benefits for availing services of schools, protection at police stations, at airports, and so on? There exists no virtual benefits to the existing audience.
  3. The issue of trust and confidence among the audience is below zero. Although Pakistan is recognized among those nations where high amount is given for charity but people here are not believing on the systems. They will happily invest their money to the places like for masjid charity or to poor people, where chance of its proper utilization is doubtful. But to a state system they will never agree to invest their money.
  4. The most dominate is the fear of association with other state the US, like the influence of World Bank and IMF which totally crashed the people's trust. New things when come to market, first reaction is whether it's from the US or not. It means they consider the involvement of such state as the devil who aimed to create hurdle for growth.
- ❖ For market system function, the concept of focusing towards rules and norms are existing in this market but linking towards supporting functions and demand and supply is not functional. Here the problem is independent working of every institute that should be focus on one table while addressing one issue around the entire state. Demand and supply is the secondary issue to promote formal banking accounts instead other issues like distance, technology adoption, religion, and so on are the initial barriers to bring smooth running system in Pakistan.
- ❖ For financial decision making people use their conscious mind because emotions left behind when it comes to money. For IBM example, it will definitely impact but who is going to do



such initiative is the question mark. Marketing campaigns by the MFBs are not sufficient even hardly present in market. Instead various MMOs are more in then these major players. But here again few dominant players are known by the audience. For using MFIs and MFBs for financial inclusion is due to low trading through proper channels by poor or low income audience. That's why the name micro is associated towards it.

- ❖ Sweden currently operating on no physical cash in economy. Every person's money is with the state and routine operations are performed as per normal routine. Such economy is preplanned for any recession period to survive without any bad downfall. But here it is not possible because state don't have all individual's registration to be considered and included.
- ❖ Pakistan industry is very different because from start focus is towards making profits as in 2016 the World Bank reported that in Pakistan the highest profit generating industry is the banking industry. Thus merely focus on marketing aspect, instead who need it can avail such services. But for inclusion the background study is different as after recession major key players are backed to these systems and at that time state economy crashes to down. Hence for inclusive segment education for audience is very much required.
- ❖ Like IBM, one expert associate this example with his Madina visit for haj. The cellular company operate there is fixed with call structure with inbuilt 25 different languages that help customers to understand easily. According to him if such approaches are used by associating with neuromarketing will definitely produce positive outcome.

#### **4.4 Categorization of study stimuli:**

This study was based on identify various stimuli that can be serve as basis for investigating audience through use of neuromarket techniques. Number of stimuli have been mentioned by participants that they considered are important. Initially stimuli are display over sheet, where pattern among similar suggested and different suggested stimuli are formed. Rest of study aim at abstracting the stimuli from data. Abstraction of stimuli focus over highlighting the areas where improvements are needed. Then categories are built on basis of initially align difference between similar and dissimilar stimuli. Here the stage of conceptualizing of data is consider as; categories can be formed on basis of study concern associate towards defining objects, processes, and difference that exists in the collected data (Bryman, 2016).

Following sheet has described the tabular form of placing all stimuli together. Next to identifying difference we formed categories to all important stimuli by placing them within the specified assign category. In this study total 5 categories are identified as; Service quality, Banking environment, Basic financial education, changing advertising themes, and uniform technology platform. All stimuli are placed under these categories by finding the links or associations with the concepts.

**Table 4.10: Categories of this Study**

<b>Categories (Themes)</b>				
<b>Service Quality</b>	<b>Banking environment</b>	<b>Basic financial education</b>	<b>Changing advertising theme</b>	<b>Uniform technology platform</b>
Trust	Local Environment that suite for poor	Basic Course in Schooling	Indicate WOM association in ads	Ensuring Uniform connectivity
Convenience	Local Language presence	Training through Agents	Bright & dark colors with rural society impacts	Radio cellular phone (internet radio, intensive form of communication)
Safety	Reducing Rule and regulations		Use PTV platform for marketing concern	Official social media websites (Institute administrations aim to bring trust & ease)
Need recognition	Changing existing terminologies		In addition to MMOs, ads focus should be more towards MFBs	
			Add more emotional content	
			Aim to reduce negative perception & psychology of targets	

#### 4.4.1 Service Quality:

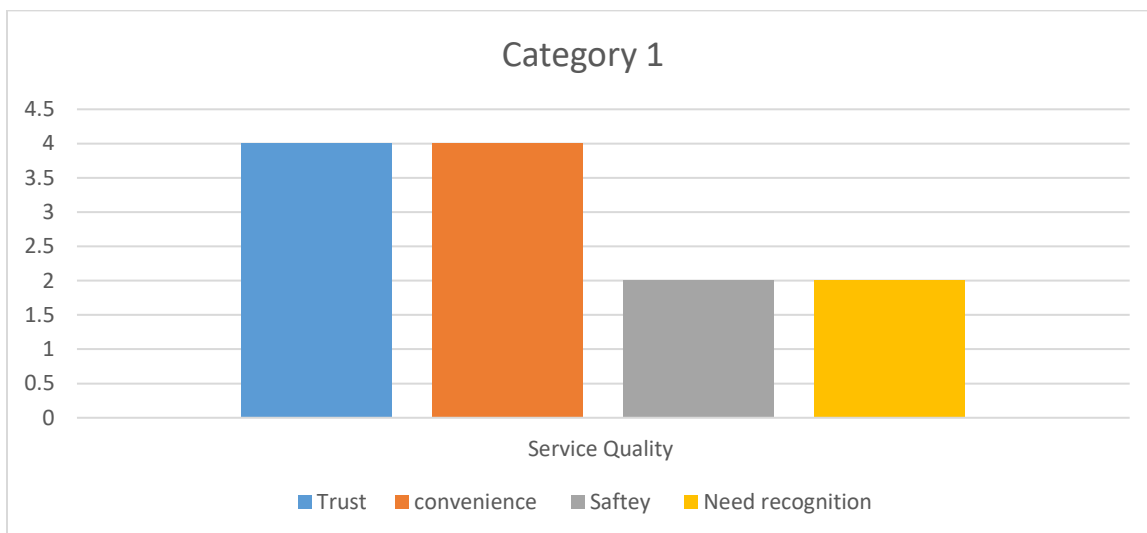
In Service quality “Trust, convenience, safety and need recognition” is placed because these factors are link to one and other strongly. The *convenience* as stimulus is recommended by four experts “Mr. Main Mateen Nasir (NBP), Mr. Farhan Aqbar (NBP), Mr. Faheem Ahmed Qureshi (Askari Bank), and Mr. Saeed Ahmed Khan (SBP)”. For *safety* as stimuli is recommended by two experts “Mr. Farhan Aqbar (NBP) and Mr. Faheem Ahmed Qurshi (Askari Bank)”. For *Trust* as stimulus is recommended by four experts “Mr. Saeed Ahmed Khan (SBP), Mr. Muhmmad liyas (ZTBL), Mr. Javed Iqbal (Meezan Bank), and Participant A (Telenor)”. For need recognition as stimulus is recommended by two experts “Mr. Main Mateen Nasir (NBP) and Participant A (Telenor)”.

According to Manager Nasir, “These factors are very familiar to all audience. But at time of ensuring its presence is neglected by majority of people having authorities to play their part”. Hence it is needed to be enter the market uniformly while providing services to all segments in the country. Next Manager Aqbar highlighted that “For achieving consistent increase in the level of inclusion you are require to ensure the easy and convenient access to these services. Increase in level of convenience will also bring increase in the level of awareness in addition to level of utilization”. By ensuring quality of provided services, it will help in increasing the use of these products and services. That’s why it is categorized as the Service quality concern. Next Senior Vice President from Askari bank Mr. Qureshi described that “Factors of convenience, safety and trust is closely related to one and other in terms of measuring the output effort of any industry. For inclusive market system currently service providers can ensure these three factors by providing uniform digital connection to market”. By ensuring the safe transfer of money for customers, it will lead to create trust. When people start trusting your services it automatically capture insight of convenience in their mind.

According to Executive Director from SBP Mr. Khan “The State had tried a lot to bring increase in level of inclusion but it is failed to build trust level among poor segments. Trust is directly linked to the level of convenience. We allowed the entry of Telco industry in order to avail and share their high level of trust in market and to provide a convenient channel for exchanging inclusive services. It initially bring increase but with understanding of audience for its connection to the banking sector again cause issues”.The reason behind getting attention towards agents or

mobile money is due to safe transfer just with use of mobile wallets or through visiting agents at near place. It help to build trust along with ensuring convenience in its operations. Hence agent banking influence trust level of people because the service providers are like them (Mr. Javed Iqbal). According to Mr. Muhammad Liyas you can bring increase in trust level and awareness of financial inclusion by training the agents.

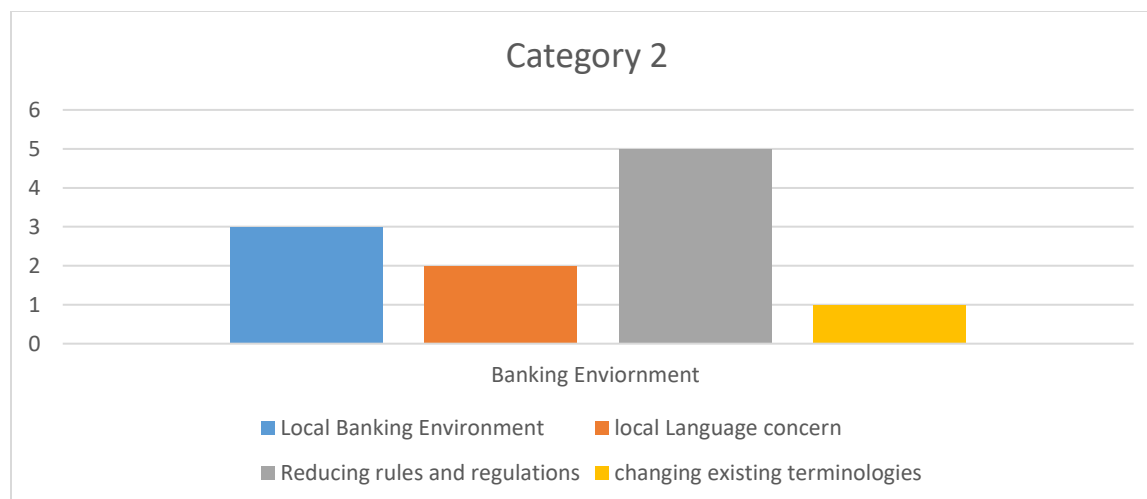
Then why still half of population is considered excluded by statistics (ZTBL, World Bank, Global Findex Data Base, CGAP, and ADB). The reason is problem of need recognition. This platform was initially started by Government through Commercial banks then to MFBs and currently in association to the Telco industry but issue is with the design and used delivery channels for the audience (Mr. Main Mateen Nasir). For strategic alliance it is very good step which create the increase in utilization of services but will produce good outcome when is focused on quality concern more instead of commissions. Similarly people in Pakistan don't believe and trust in banking sector to an extent. Due to influence of other dominant economies on Pakistan especially the USA, which is always considered devil holding financial pillars of Pakistan (Mr. Faheem Ahmed Qureshi & Participant A). Thus this problem of need recognition can be solve by performing practical studies with introduction of Neuromarketing techniques. While conducting studies these stimuli are required to be place in front of test subjects then responses should be measure by placing neuro-market tracks. This will help to capture what exactly the subject wants. More refine estimation is given by following graph;



**Graph 4.1: Service Quality.**

#### **4.4.2 Banking Environment:**

Banking environment is badly targeted by experts and recommended it should require major changes. This category include four stimuli as, “Local environment that suites to poor, Local language presences, reducing rules and regulation, and Changing existing terminologies”. For “Local environment that suites to poor” as stimulus is recommended by three experts “Mr. Farhan Aqbar (NBP), Mr. Ali Abrar Qureshi (Askari Bank), and Mr. Muhammad Liyas (ZTBL). Next for “Local language concern” as stimulus is recommended by two experts “Mr. Main Mateen Nasir (NBP) and Mr. Ali Abrar Qureshi (Askari Bank). This can be done by introducing employee training to local setups and reducing rules and regulations to extend (Mr. Nasir). For concerning change of environment the language aspect need more concentration (Mr. Liyas). While hiring focus should be over knowing local language skills of employees instead of just focusing over English as a medium (Mr. Aqbar). One expert added, “Similarly is done by the international companies located in china where rest of nation is based on natural language Chinese. For leading internationally they hire people on basis of knowing international language as English. If marketers focus on monitoring the emotional or unconscious aspect of audience they should first bring the kind of awareness regard these services. For awareness the associate authorities should reconsidered prevailing financial language or use of existing terminologies. Aside from poor or low income the service providers in different banks are even not aware with this terminology” (Mr. Faheem Ahmed Qureshi). Next for customer’s experience to banks one expert highlighted that “When Customers entered to banks they mostly get confused by facing the affluent atmosphere. They feel hesitation even to ask about their queries. When they are supposed to fill documentation majority of them are not happy to complete that process” (Mr. Ali Abrar Qureshi). They usually avoid to provide history of financial transactions conducted by them in the past and even not providing reason behind performing current transaction. Mobile Money Operators (MNOs) and agent banking helped a lot to reduce this barrier of communication. Still issue of acceptance exists because it is linked to banking sector at the end of process (Mr. Saeed Ahmed Khan).



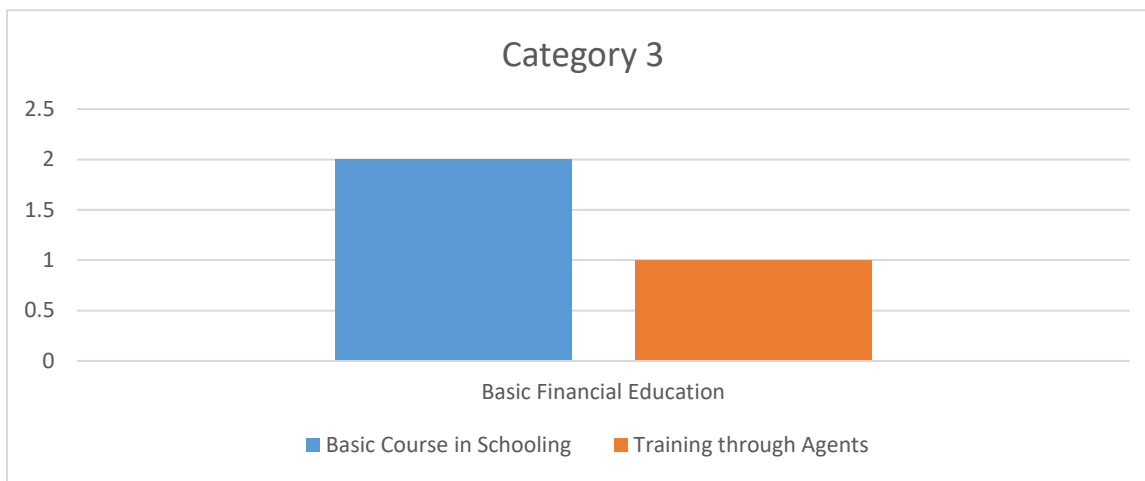
***Graph 4.2: Banking Environment***

#### **4.4.3 Basic Financial Education:**

This category counts for two stimuli as “Basic coursing in schooling and training through agents”. For Basic Coursing in schooling as stimulus is recommended by two experts “Mr. Ali Abrar Qureshi (ASkari Bank) and Mr. Faheem Ahmed Qureshi (Askari Bank)”. Next for Training through agents as stimulus is recommended by one expert “Mr. Muhammad Liyas (ZTBL). Low level of prevailing financial literacy or customer education can act as barrier in increasing level of financial inclusion in Pakistan in coming years, unless addressed (Mr. Faheem Ahmed Qureshi). Therefore basic understanding towards finance is compulsory required. Which will change the dimensions of this financial market not just to the concern of financial inclusion but also for financial market understanding and competition. According to Ali Abrar Qureshi “When people know basic courses with the penetration system of Urdu and English mediums, and also engineering and biology, then why not economics and finance. If this is implemented then will serve for sustainable future growth of state”. According to Mr. Faheem Ahmed Qureshi “Such education system will bring awareness regards financial operations, links between finance and economics, reducing distrust issues, and even to understand various intakes taken by government for welfare of both people and state”. Further Mr. Ali Abrar Qureshi added that “Pakistan industry is very different because from start focus is towards making profits as in 2016 the World Bank reported that in Pakistan the highest profit generating industry is the banking industry. Thus merely focus on marketing aspect, instead who need it can avail such services. But for inclusion the background study is different as after recession major key players are backed to these systems and

at that time state economy crashes to down. Hence for inclusive segment education for audience is very much required”.

Similarly for short term reforms it should focus on training platform through agents that can transfer the basic idea to this market. For short term reforms focus should be given to increase understanding of this concept by the agents (Mr. Liyas). This will bring increase in awareness level of concern audience. Such intakes will also provide inclination towards adopting market system function as given by CGAP in 2015. Currently one of its aspect is dominantly accepted by Pakistan as intervention towards strategic partnerships.



***Graph 4.3: Basic Financial Education***

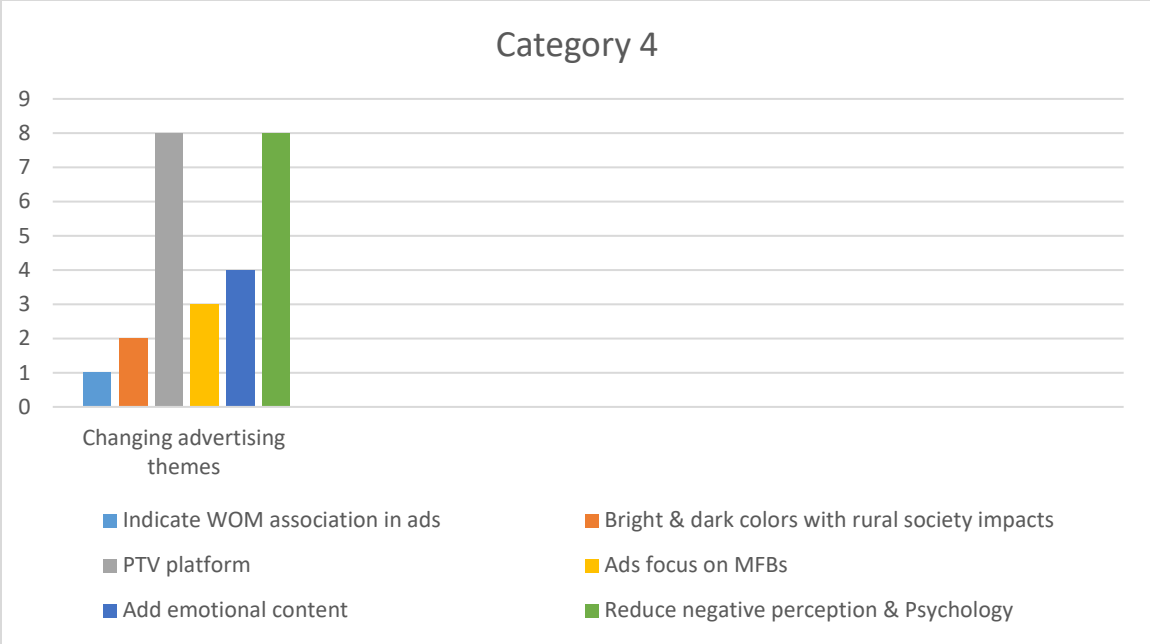
#### **4.4.4 Changing advertising themes:**

For changing advertising themes, we align various concepts of data gathered through transcripts such as; Indicate WOM association in ads “Mr. Main Mateen Nasir (NBP), bright & dark colors with rural society impacts (Mr. Ali Abrar Qureshi (Askari Bank) and Participant A (Telenor)”, use PTV platform for marketing concern “All eight participants agree to use this platform”, in addition to MMOs, ads focus should be more towards MFBs “Mr. Muhammad Liyas (ZTBL), Mr. Javed Iqbal (Meezan Bank), and add Mr. Farhan Aqbar (NBP)”, more emotional content “Participant A (Telenor), Mr. Main Mateen Nasir (NBP), Mr. Faheem Ahmed Qureshi”, and aim to reduce negative perception & psychology of targets (All eight participant focus on reducing this issue).

Various drawbacks of advertising messages exist in market for financial inclusion aspect. As they know their targets are low income and poor audience but still their advertising stories highlight the position stance which majority of them can expect to have in many years (Mr. Ali Abrar Qureshi (Askari Bank). How it will influence their perception while making decision to use such services, which they consider is not for them. Although majority of experts considered that Easypaisa avail benefit to be first in the market (Mr. Nasir, Mr. Khan, and Mr. Faheem Ahmed Qureshi). They sustained this benefit due to consistent advertising message. They used easy name that can be remember without inducing the parent name on storyboard. In addition environment display is for the poor audience that grasp their attention easily. Anyhow rest of market need improvement for improving this area.

If we associate it with the advertising done by “Tarang and Gala biscuit” currently, what they did. They created the environment that capture the attention of targets by inducing the local settings, dark colors themes, known celebrity endorsement, drivers using the tea made of tarang at local settings, and so on (Participant A “Telenor”). For PTV addition, it is highlighted by the experts that nation platform is always being part of the remote areas, where inclination towards financial inclusion products are very low. Therefore it will help in producing level of awareness. One expert Askari Bank Mr. Faheem Ahmed Qureshi highlighted that “The example of Turkish dramas over PTV which influence all the audience and there actors are sponsored by cricket teams even such as; Halima Sultan for Peshawar Zalmi, for Jazzcash, and by Khaadi. Such few deep intakes brings positive responses”. For interlinking the advertisement aspects with neuromarket approach “Few advertisements should be design and test subjects should be place in front of these commercials. After subjection to these stimuli practitioners should view brain responses by using neuromarket techniques. This will help to filter the exact causes for prevailing negative perceptions among targets”.





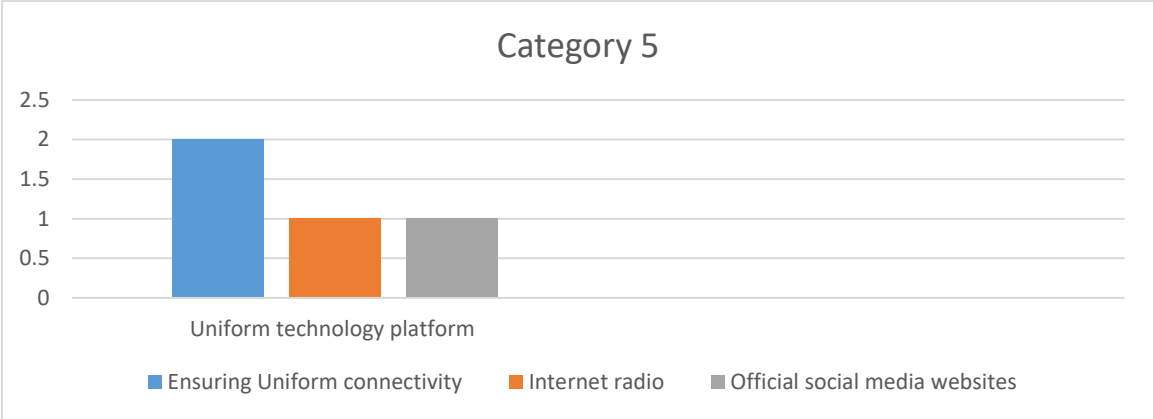
**Graph 4.4: Changing Advertising Theme**

**4.4.5 Uniform technology platform:**

For uniform technology category, three experts “Mr. Faheem Ahmed Qureshi (Askari Bank), Mr. Saeed Ahmed Khan (SBP), and Participant A (Telenor)” agree that it will be acting as substitute towards improving all other suggested categories. It will help to increase awareness among audience but concerns for formal economy will still face issue of proper documentation and registration of people (Mr. Saeed Ahmed Khan). For solving this issue proper channel of additions of people are require within system. For documentation concern one expert from NBP Mr. Main Mateen Nasir added example as, “Sweden currently operating on no physical cash in economy. Every person’s money is with the state and routine operations are performed as per normal routine. Such economy is replanned for any recession period to survive without any bad downfall”. But here it is not possible because state don’t have proper registration system. Thus proper platforms for registration of customers are required.

Next for Radio cellular phone and official social media website as stimuli are recommended by one expert “Mr. Faheem Ahmed Ali (Askari Bank). These platforms will help in bringing some sort of awareness towards the financial inclusion (Mr. Faheem Ahmed Qureshi). Communication gap between supply and demand can be reduce by providing uniform internet connectivity. Like people willing use mobile phones and internet apps that merely require

connectivity concern for bringing people in. Similarly mobile phone industry is dominantly accepted by the rest of Pakistani population even in the remote areas. The prominent players of this industry include Tameer/ Telenor microfinance bank (Easypaisa), Mobilink microfinance bank (Jazzcash), and U-microfinance bank (U-paisa), and Warid along with bank Alfalah (MobilePaisa). All focus on bringing inclusive environment by linking it with familiar brands that will easily build trust among the audience. The involvement of telco industry had helped out to increase the level of inclusion but is not up to the mark, like in 2017 the inclusive level reached to 13% by using mobile money operators. Aside from this inclusive measurement, the mobile money network covered almost 95% of people around globe. Further the use of 3g or other technologies raised to 84% of people across globe and extend reached to rural population is approximately 67%. In Pakistan almost 90 percent of population used cellular platform and this increase is growing sustainably for last 15 years (Mian Mateen Nazir). Neuromarket technique can be best use by linking to mobile apps. Various inbuilt neuromarket techniques (Neurotransmitters) will help to bring out brain insights.



**Graph 4.5: Uniform Technology Platform**

## CHAPTER 5

### DISCUSSION AND CONCLUSION

#### 5.1 Discussion:

This particular study is focus over answering few objectives related to identifying and analyzing issues of low level of awareness towards financial inclusion and towards using neuromarket approach. Initially data available for issue of low level of inclusion is gathered from different sources. Which depict patterns from developed to developing nations, lead by narrowing down towards trends of financial inclusion in Pakistan, highlighting the changes in adapting different strategies such as; for strategic partnerships, introduction of branchless banking system, next the barriers associate towards financial inclusion is highlighted and then market system function which is require for improving effectiveness of financial inclusion industry is mentioned. Along with description of this issue, the suggested neuromarket approach is explained in detail by linking it with the issue as measure of analyzing causes behind this problem. The mechanism is opt by linking it to existing theory base of S-O-R model. Where focus is over subjecting subject towards some study stimulus and then measure response by passing through the stage of organism. Till now prediction stance is used by marketers to associate with stage of organism and recognized it as the cause for output behavior as described by Hetharie et al. (2019) and Park et al. (2006). But this approach help to measure accurate stance of what actually happened at stage of organism.

First objective is to find the level of awareness related to financial inclusion among poor or low income audience. *Experts* highlight that the awareness level is near about zero among targets. Adults even having accounts are not aware with the concept of financial inclusion because here inclination towards understanding and utilizing financial services is very low. In Pakistan low level of awareness is apparent due to various prevailing issues such as; geographical constraints, lack of enabling environment at provincial level, poor banking behavior and practices, high level of poverty, illiteracy, language barriers, cultural issues, lack of suitability of products, and due to regulatory barriers as what was highlighted by Akhtar (2007). Further conducted researches shows strong connection between “financial inclusion and poverty” and was highlighted by Demirguc-Kunt et al. (2008) and Hannig & Jansen (2010) and connection between “financial inclusion and financial literacy” was highlighted by Atkinson & Messy (2013). Government even induce few platforms such as; salaries through banks aim to increase the level of inclusion but no such change

occur for improving awareness level. The purpose of introducing this strategy was to increase number of bank accounts that will automatically bring increase in level and awareness of inclusion but results show its positive impact on just increasing the level not the awareness. This increase was pointed out by Demircuc-Kunt et al. (2018) that indicated 46 % increase in bank accounts around developing nations.

Next existing platforms are studied such as; agent banking influence, quality of information they provide to MFBs and for introducing branchless banking criteria. Agent banking and branchless banking platforms have shifted the level of inclusion to certain increase from 9 percent in 2014 to 14 percent in 2017 as indicated by Lewis et al. (2017). In agent banking information concern is not cleared due low level of education among shopkeepers who act as agents in agent banking network. Next to education level the training aspect is also very minimum among them as highlighted by Zahid et al. (2017). Further issue of trust level is also threaten due to security and privacy concerns that deal towards creating negative attitude among customers as given by Cobourne et al. (2013). Agent banking is introduced to increase awareness among the adults but due to lack of training, low level of education, trust, security issues and privacy concerns act as barriers in increasing the level of inclusion. Unless these require modifications are not perform by associate institutions, it will maintain issue of low level of awareness and will increase communication gap between suppliers and demanders of this market as highlighted by Bhanot et al. (2012).

There exists mismatch between level of awareness and utilization of financial services in Pakistan market as highlighted by Hassan et al. (2020). Financial service providers and other authorities increased number of existing platforms for providing services of financial inclusion in Pakistan but estimated outputs are not according to prevailing outcomes. Adults having basic education level are somewhat aware with basic terminologies of financial inclusion products and services but they are not willing utilize these known services. Recently conducted study in Quetta Pakistan had depicted this issue by measuring difference between level of awareness and utilization as indicated by Hassan et al. (2020). Where opinions are abstracted from target audience not from the service providers or authorities who design these platforms. For this reason we highlighted the issue of low level of awareness which require proper market analysis to abstract the accurate reasons behind prevailing restrictions in using financial inclusion services. In addition

this study focus over abstracting the opinions of experts who were linked to provide these services initially to Pakistan market.

Second objective of study is to find awareness among experts related to this new emerging neuromarket approach that predict accurate brain responses of customers. This technique is used currently by all big companies in developed and even few with developing nations. Like study described the use by Pepsi, Nokia, IBM Watson, Bright House and Sales, Microsoft, and Lexus, as highlighted by Klineckova (2016), Lindstorm (2012), and Semieoglu (2019). For financial studies literature also underline use of this approach such as; use for presenting financial reporting system as described by Ermenko and Kuzmina (2019), linking neural network approaches along with genetic algorithm as described by Semieoglu (2019), credit scoring purpose given by Tafti and Nikbakht (1993), attitude formation in response to ATM system given by Davies et al. (1996), financial stresses in Australian Credit Unions (ACU) given by Harjou (2001), and so on. In Pakistan, this approach is recommended only in academics and very few studies are conducted by using neural activity outside brain such as; “use of basic technique of blind testing and eye tracking” as highlighted by Brain image (n.d.). The interpretation of interview transcripts also highlight less familiarity with neuromarketing approach. This study suggest the use of neuromarket approach to solve issue of low financial inclusion. Various abstracted stimuli are filtered into defined set of categories as highlighted by Ritchie et al. (2003). These categories are suggested to be tested while using neuromarket techniques and all reactions to marketing stimuli in form of brain outputs will help to obtain register data and can be quantify for further analysis and implementation as highlighted by Banos-Gonzalez et al. (2020).

Next neuromarketing techniques, reward system implementation, and neural network process is described in detail only in literature of this study. Reason behind its description is to provide idea related to using neuromarketing techniques. Each technique is explained on basis of describing its features that help the practitioners to make clear operational and management implementations as highlighted by Lim (2018). Next reward system is described on basis of providing idea related to neural network procedure and use of traditional positive response activation by subjecting to various environmental stimuli as highlighted by Touhami et al. (2011). In addition it also depict the importance of emotions in decision making process as highlighted by Damasio (2018). Neural network process is described because it has been taken by many scholars

both in field of marketing and finance along with application of neuromarket technique and using genetic algorithm. In marketing it is used to select correct market segments, justify consumer's reactions to advertising, and to develop market strategies. In finance it is used to introduce knowledge system for financial analysis in banking sector, for credit evaluation sector, and for decision making assessment sector as highlighted by Semieoglu (2019). During research conduction these aspects are not asked by experts directly because rest of all industries including Information Technology (IT) sector are not practically using them. Instead focus is inclined towards asking opinions towards neuromarket approach.

Third objective is to filter various important stimuli to solve issue of financial inclusion. After interview conduction thematic analysis is formed by using matrix base format where rest of data is aligned over excel sheet as highlighted by Ritchie et al. (2003). Then we have filtered various themes or indexes that describe patterns and associations within collected data set. Further these indexes or themes are converted to various categories that serves as list of stimuli as described by Alhojailan (2012). This study is aimed to find important stimuli that can be used to filter responses from subjects in association with neuromarket technique. After capturing brain insights service providers will be able to identify exact requirements of audience. This study used stakeholder's perspective of purposive sampling as highlighted by Ovretviet (1998) and Reed et al. (1996). Where existing institutes for MFBs are not aware with all challenges faced by them and they focused over traditional approaches to approach their targets as described by Mustafa (2015). Hence initial service providers who had provided these services and even few are the part of designing strategies for inclusive growth are considered. After indexing study had grasp the link between similar and different opinions in form of stimuli. On basis of abstracted stimuli various categories are formed and each categories is filled with other similar set of stimuli as highlighted by Ritchie et al (2003) such as;

1. Service quality,
2. Banking environment,
3. Basic financial educations,
4. Changing advertising themes,
5. Uniform technology platform.

First category is “Service Quality” that composed of (Trust, convenience, safety, and need recognition). In existing literature arguments related to trust, convenience, and safety are available somehow as highlighted by Afshan and Sharif (2016), Zahid et al. (2012), Cobourne et al. (2013). But for need recognition no direct opinions are available. Second category is “Banking Environment” that composed of (local environment that suite for poor, local language perspective, reducing rules and regulations, changing existing terminologies). All experts suggest to change bank atmosphere to local setups and train employees accordingly as highlighted by Akhtar (2007) and Atkinson and Messy (2013). For creating awareness associate authorities should reconsider prevailing financial language or use of existing terminologies as highlighted by Hassan et al. (2020). Study indicate the second highest barrier as lack of understanding language as 63.9 % in Quetta. 5 out of eight experts suggest to reduce rules and regulations as what is being described by Akhtar (2007) and including new regulatory framework to market limits the ability of service providers to attract new customers and imposing high cost of operations as highlighted by Atkinson and Messy (2013) and Zahid et al. (2017). But experts from government institutions such as NBP and SBP highlighted its importance for perfect implementation of system while others highlight that strict rules and regulations is one of the devil that threaten targets to avail such services.

Third category is “Basic Financial Education” that composed of (Basic course in schooling, and training through agents). Basic courses for financial inclusion study is not directly induced by the scholars although concern for increasing level of education is highly recommended. Low level of education act as a worse barrier in increasing awareness towards financial inclusion. If this is implemented can serve for sustainable future growth of state. Such education system will bring awareness regards financial operations, links between finance and economics, reducing distrust issues, and even to understand various intakes taken by government for welfare of both people and state. In Pakistan the agents associate to agent banking are usually not qualified hence they are unable to transfer the basic idea to audience as highlighted by Zahid et al. (2017). Thus for short term reforms institutes should focus on training platform through agents that can transfer the basic idea to this market.

Fourth category is “Changing Advertising Themes” that composed of (Indicate WOM association in ads, bright & dark colors with rural society impacts, use PTV platform for marketing concern, in addition to MMOs, ads focus should be more towards MFBs, Add more emotional content, and

aim to reduce negative perception & psychology of targets). All experts suggested to changing the advertising criteria of approaching towards customers. Various drawbacks of the advertising message exists in market for financial inclusion aspect. As they know their targets are low income and poor audience but still their advertising stories highlight the position stance which majority of them can expect to have in many years. Although majority of experts considered that Easypaisa avail benefit to be first in the market. They sustained this benefit due to consistent advertising message. They further highlighted the advertising campaigns done by Gala biscuit, Tarang, and Khaadi. Where they induce more emotional content and using bright colors to attract customers. According to them such deep in takes will bring positive responses from customers. From literature very little is available for highlighting the deep importance of advertisement for increasing awareness regards financial inclusion. Fifth category is Uniform Technology Platform” that composed of (Ensuring uniform connectivity, Radio cellular phone (internet radio, intensive form of communication), and official social media websites (Institute administrations aim to bring trust & ease). Rest of experts agree to spread the uniform connectivity concern through internet channels. Which will be acting as the substitute towards improving all other suggested categories. It will help to increase awareness among audience but concerns for formal economy will still face issue of proper documentations and registrations of people as highlighted by Akhtar (2007), Aino and Oluyombo (2014), and Asian Development Bank (2015). For solving this issue proper channel of addition of people are required within system. Various platforms such as Radio cellular phone or internet radio and with official websites at social media can also bring some sort of awareness towards the financial inclusion.

For explaining the forth objective of this study, the abstracted framework from conducted thematic analysis is link with the mechanism of existing theory of S-O-R model. Which is require to be test in future studies. Hence study provide new idea to financial inclusion market in Pakistan for accessing their customers through this path and identify actual reasons behind low inclusion.

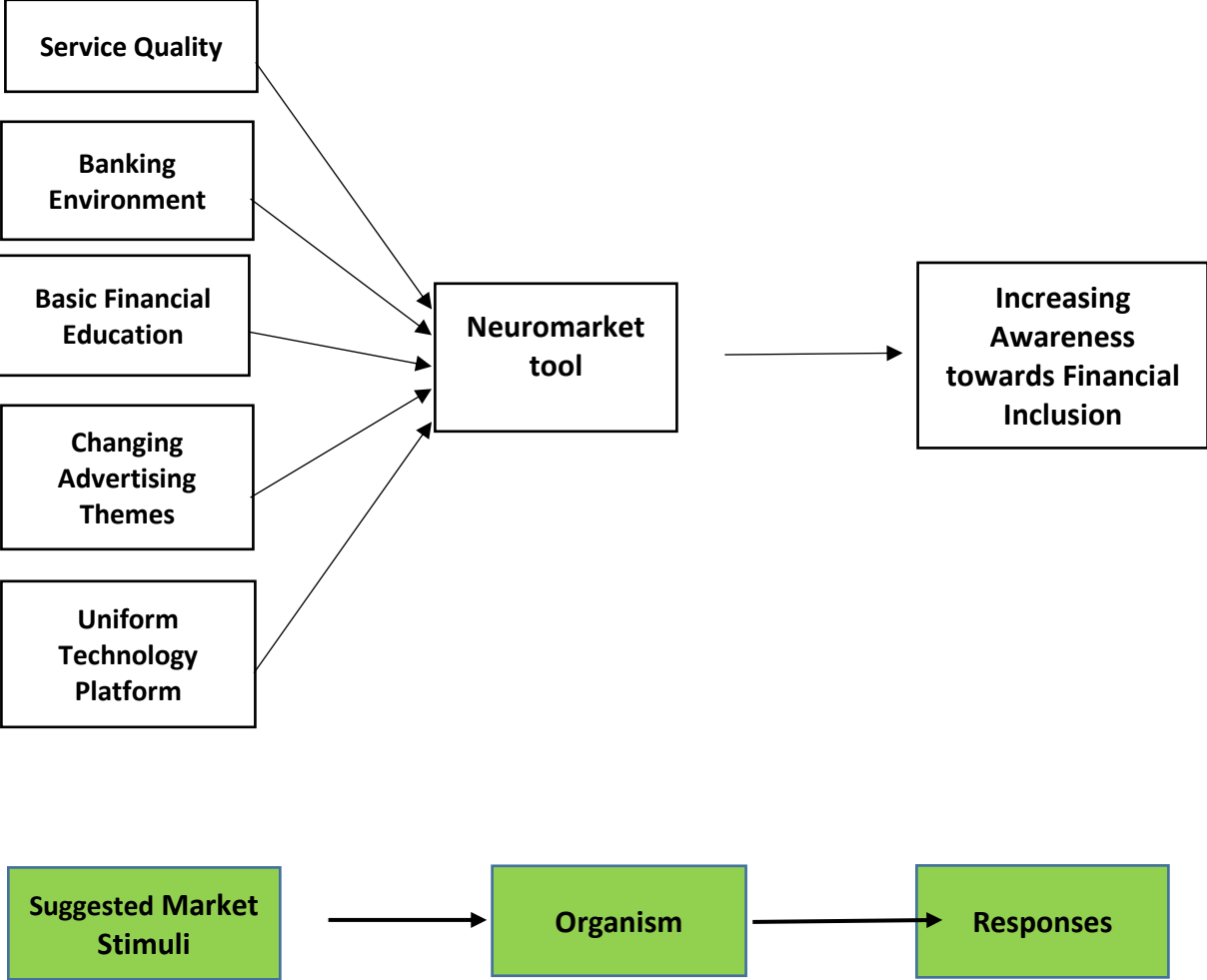
## **5.2 Suggested Framework:**

Thematic analysis is used to grasp various stimuli that experts consider important while investigating poor or low income audience. This research is based on abductive approach where initially existing data is gathered that help us to structure semi-structure interview. Then categories are abstracted from emerging themes or indexes. Initially study is associated with theory of S-O-R model where focus is over depicting stimulus-and-response mechanism. After finishing thematic



analysis we suggest the framework base on S-O-R model application. Various categories are place as stimuli that will be investigate by neuromarket technique at organism stage and finally will be able to find causes of output behavior. This suggested model need deductive testing of accepting or rejecting various stimuli.

**Suggested framework “themes” for increasing awareness towards FI:**



This framework has roots in the mechanism process of S-O-R theory where the aim is to identify the responses of the subjects after placing towards various market stimuli. The existing

theory is based on hypothetical framework where environmental cues or stimuli aims to affect the emotional aspect which will at end lead by output behavior that is being affected (Rajaguru,2014).

It is used commonly in studying the consumer behaviors (Jacoby 2002). Here it concentrate over using each category individually to measure the S-O-R responses towards financial inclusion with providing link to neuromarket technique. After testing of each category combine model for implementation of analyzing consumer behaviors associate to awareness and increase of financial inclusion can be performed.

### **5.3 Use of Neuromarket technique to this study:**

All gather categories can be used in association with assessing technique of neuromarketing in practice. Which will definitely help to diagnose existing causes or barriers behind not availing the financial inclusion services. Stimulus response mechanism has been studied in number of other behavioral studies explaining through S-O-R model. This existing model is suggest to be modified by using neuromarket techniques at organism stage. This shift will help to convert predicted or estimated reasons behind response output to accurate causes prevailing inside mind behind studying concern response.

In Pakistan currently there is no practical use of neuromarketing techniques. Hence access to such techniques was impossible that's why we focus on describing the marketing issue where responses of audience towards financial inclusion in Pakistan is negative. After implementation of this qualitative analysis of interview few stimuli are suggested (abstracted from expert's opinions) can be used to implement this analysis process by using the theory along with neuromarket technique. As this abductive focus of study provide new model implementation that need to be tested for future studies. It is the systematic combination of inquiry done at stance of analyst aimed to depict the respondent's view (Dubas & Gadde, 2002; Jarvensivu, & Tornroos, 2010; Thomas, 2010).

For studying the Service quality and changing advertising themes, it will required to build testing environment. Initially the practitioners need to design a message that reflect the ingredients of both categories. Practitioners are required to design message that is easy to understand by audience. Then few participants as targets are required in testing environment. They should be initially subjected to advertisement where the message will be entered in their mind. Next participants will be left free for 10 mins. Subsequently same participants will be subjected to same

ad again while wearing test helmets (Neuromarketing instruments). Here the tracks formed within limbic (emotional brain system) system will be captured. The test output will help to analysis whether audience get their message or not.

Next for Uniform technology platform category, service providers should insult the neuromarket techniques in mobile apps along with ensuring uniform connectivity. When customers will use apps their brain activities will be measured. It will help to analyze the opinions of targets irrespective of including their conscious involvements. Techniques such as neurotransmitters or eye trackers are then become the part of apps and make it convenient for service provider to introduce all other communication aspects through this one platform. Like display different ads related to financial inclusion, introduce messages related to bundle of packages before introducing to market, and so on.

For using neuromarket approach related to analyze other two categories as; “Banking environment and basic financial education” will required experimental trails. These two categories aims at bringing the dominant changes within existing systems of Pakistan. One require change at schooling system and other at banking institutions. Therefore, initially research consultants have to educate and communicate the people run prevailing systems. After this campaigns are required to be design. Where it should be compose of highlighting changes base on ingredients of associate categories. During conducting sections these techniques are required to grasp the first intakes by the targets. If results justified the inclination towards more positive outcomes then these organizations should implement these changes. Which will help to change the prevailing negative perception among audience. Such changes require time but bring consistent positive output for longer period of time.

#### **5.4 Conclusion:**

Neuromarketing is the science of investigating consumer’s brain through using various techniques. Some among them are potable and some are unpotable, some requires electrical presences and some magnetic presences, some give high temporal resolutions or some low, and similarly for the spatial resolution. But this intake is something grasping more than what a customer can say or interpret. If such extraordinary measuring devices are present then can be subject to any field of studying social phenomena. Hence study interlink this technique to provide idea about identifying reasons behind low financial inclusion. In developed economics these

techniques are moving to use within addressing each marketing message and highlighting the reduction in expenses made by use of other traditional marketing techniques. The purpose of this study is to provide idea related to marketing issue of prevailing low inclusion in Pakistan. The good thing is that it provide connection between analyzing the marketing issue that is link to behaviors and psychic by associating with the stance of neuromarket technology that will find out the accurate reasons for prevailing wrong perceptions of poor or low income adults. But there exist series of issues such as; very low awareness and practical use of neuromarket technique in Pakistan. If the use is not common then the practical subjection towards conducting field testing is also not possible at that time. Thus study focus on conducting the interviews from experts for identifying various important stimuli. These stimuli will be subjected to testing while using S-O-R model. As highlighted in the suggested framework. Further each identify category is explained in detail based on information gather during interview conduction.

#### **5.5 Limitations and Future Research Directions:**

Although this study had covered broader aspect of providing idea aim to convert the attention of policy makers, MFBs, and MMOs from just focusing more over statistics they need to investigate the reasons why the audience is not happy to avail your provided services. Even though government has reduced regulation concern to boost the level of inclusion such as; “Providing license to third parties to boost branchless banking, and allowing continuous increase in numbers of microfinance institutions” but very small changes are observed. The prevailing negative perception and conservative thinking is because of other issues that are strongly present inside their minds.

This study had created the link between two broad concepts that aim to solve the low awareness towards financial inclusion by focusing over marketing platform. But time require for implementing any intervention is usually more. Next other resources (money and management concern) to even implement these changes were also not enough. Aside from measuring resource aspect, currently no industry in Pakistan is properly using this technique. Hence this study was confine towards bringing insights from experts and highlighting the level of importance that it need to be implement practically in future. Suggestion for the future guidelines are as;

- ❖ The suggested model is needed to be test for the future studies as; “Outcome from abductive research focus is suggested framework that need testation of the framework for future studies, (Rashid et al., 2019)”.
- ❖ For neuromarketing even its presence is available in academics, thus for implementation it require training aspects by management in Pakistan industry.
- ❖ By introducing these techniques the investment expense will be reduce as compare to existing traditional techniques. Hence future analysis associate to conduct such studies relate to neuromarketing is recommend “As every year about \$40 billion are invested for marketing activities what majority times show flaws outcomes (Morin, 2011)”.
- ❖ This study is link to financial inclusion industry where measures are towards understanding causes behind financial behavior issues therefore can be link to other financial industries currently operating especially in developing nations.
- ❖ For short time period few interviews has been taken by experts, for further studies numbers should be increase with including MFBs to conduct more detail analysis.
- ❖ Additional categories associate to financial inclusion industry can be explore in order to build more defined categories to the suggesting model.

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## Appendices

This study consists of total Six Appendices (Appendix A to Appendix F). First four appendices are related to interview synopsis. Which are initially formed over excel sheet by using thematic analysis, based on matrix base format approach. Where information related to all participants are provided along with their responses to all questions are entered. Rest of information provided in spreadsheets are already present in this report document but these appendices will help readers to grasp quick summary by viewing them. For making uniform patterns among collected data all responses are differentiate on basis of similar responses, opposite responses, and totally different responses from respondents. Further these responses are differentiated on basis of providing different colors to them such as; for similar responses all are colored with Gold Accent 4 (Lighter 80%), for opposite responses all are colored with Green, Accent 6 (Lighter 40%), and for totally different responses all are colored with color mixture of pale blue and green (Turquoise).

Next Fifth Appendix, describes the formation of indexes to this study. Where it reflect characteristics of all interview questions. It further highlight the sub-division within each index that is abstracted from total set of 22 (A-to-V) questions. Sixth appendix consist of stimuli that are highlighted by experts during interview. This spreadsheet is composed of display market stimuli all together and initially separated on basis of similar and different stimuli. For section of “Similar Stimuli” all those stimuli that are recommended at least by 2 participants are entered. Next for section of “Different Stimuli” further differentiation is form by assigning different colors such as for similar stimuli all are colored with Gold Accent 4 (Lighter 80%), and for different stimuli all are colored with Green, Accent 6 (Lighter 40%).

## Appendix A:

Qs	Interviewed participants belonging to following institutions (Interview Synopsis)								
	National Bank of Pakistan (NBP)	Askari Bank	State Bank of Pakistan (SBP)	Zarai Taraqati Bank (ZTBL)	Meezan Bank	Telenor			
	Main Mateen Nasir (17 years)	Farhan Aqbar (16 years)	Ali Abrar Qureshi (17 years)	Faheem Ahmed Qureshi (28 Years)	Saeed Ahmed Khan (30 years)	Muhammad Ilyas (27 years)	Javed Iqbal (14 years)	Participant A (21 years)	
<b>Q 1- State of awareness towards Neuromarketing approach</b>									
A-	State of familiarity with Neuromarketing approach	Familiar	less familiar	less familiar	less familiar	less familiar	less familiar	less familiar	familiar
N-	state of conscious and unconscious mind while making decision	Both are involved even for financial decision routes are marked based on unconscious.	Both are involved but for financial decision making conscious part are involved more.	Both can be involved but for financial maximum 25% unconscious is involved.	Both are involved and a person strong history of both state are involved in making any decision.	Financial decision is based entirely over conscious mind.	Both state are considered.	Both state are considered.	Both state are involved but from customers, they usually don't know about such concepts while making decisions
P-	Opinion regard use of neuromarketing technique while associating with IBM approach	It will produce positive impact over increasing financial inclusion.	It will definitely produce positive effect and will provide platform to access true issue behind this prevailing problem.	Definitely it will produce positive output in recent past just with introduction of English and Urdu ATM produce positive impact in increasing use of it.	Yes, it will definitely produce effect.	It can produce effect but who will program such software here.	It can be but who will do such effort here in Pakistan.	Yes, it will help to change the market dimension because language is the bases for understanding core idea of whatever is the subject of focus.	Yes, it will just as we enter with name of EasyPaisa and it enter and click by market suddenly so any technique that can provide ease of same medium access will help to solve this issue also.
<b>Q 2- State of awareness and understanding towards Financial Inclusion by adults from expert's opinion</b>									
C-	Adults having accounts are not aware with the concept of financial inclusion	Strongly agree.	Strongly agree.	Strongly agree.	Strongly agree.	Strongly agree.	Strongly agree.	Strongly agree.	Strongly agree.
J-	Salaries towards bank accounts aimed to increase awareness towards financial inclusion	Yes, it is a very important step as on one side increasing confidence in people & on other side also opening doors for marketing other banking products such as; Loan and Insurance.	It aimed to track the money through economy and to increase inclusion but without awareness of audience.	Not, it is for safety and security concern and unintentionally it can lead towards this increase also.	Yes, one of the aim to create awareness towards financial inclusion.	Government had focused to include income in flows into economy for certain time of period but without spreading awareness towards financial inclusion.	Yes, to an extend it aimed to create awareness.	Yes, it aimed to increase inclusion level.	Its like more towards security and safety concern & not know why banks or government opt for inclusion aspect or not.
<b>Q 3- Existing Platforms for financial inclusion in Pakistan</b>									
G-	Agent banking associate to financial inclusion in Pakistan	Yes, they have provided the convenience to customers by means of easy access to financial system with least documentation.	Yes, it has been positively accepted by the poor audience in Pakistan.	Yes, it is.	Yes, to an extend as it lead by doing extra business, which will have positive effect over inclusion	Yes, agents plays important role.	Yes, to an extend it did.	Yes, it aimed to increase inclusion.	Yes, it drastically create increase B/c people feel pleasant while interacting and dealing with agents that why we focus over advertising towards promoting this channel.

## Appendix B:

H-	How bank trust on quality of information Agent provides	Yes, an agent has a reputation in the market and even for commission concern, the true image & picture is visible.	they totally can't depend on quality of information that agent provide but bring ideas through this.	Quality issue is their because the agent knowledge towards the inclusion is also low. So entirely not depend over his knowledge but can be with adjustments.	Every transaction is supported by CNIC. No and safety transfer will ensure to bank trust over agents.	Safety and ensure exchange build trust in customers as agents targets emotions of audience but for quality it depend on knowledge of associate agents.	For information concern agents need to be trained.	Proper training of agents will ensure quality of information.	For commission and interaction concern bank should focus on the information they provide irrespective of quality concern. If this market start based on ensuring quality all problems will reduce to an extent.
H'	How bank ensure that their customers trust agents	People trust people alike more easily and with safe transfer they trust them.	Commission system help to highlight things.	Safe transaction ensure this concern.	Through commission aspect bank trust that their customers trust agents.	because of commission concern both aspects trust one and other.	As customers trust agents bank will also trust them.	through customer's feedback it is possible to note.	Results show the increase from 2014 to 2017 the increase indicate that they trust them aside from banks.
I-	By using different platforms (such as; through agents and MMDs as branchless banking) in market to increase the utilization of financial services help the service providers to increase awareness with the terminology of financial services?	Yes, it will increase utilization not awareness.	Yes, it will.	Yes, to a level.	Yes, utilization increased but awareness concern is not that much promoted.	Purpose of increasing platform is to increase utilization instead of increasing awareness towards financial inclusion.	Yes, it will increase awareness as if different platform are used then target audience will believe them that they are not novel and they will stay here.	Yes, by increasing service providers it will increase utilization and awareness.	Yes, it does as by increasing platforms, people have variety to use them, depend upon their feel of ease they approach that channel.
V-	Financial inclusion as the Economical or banking issue by experts.	It has roots in Economics but government specifically established MFBS to market them on legal grounds	Economic roots but burden is shifted over to banks.	It is Economic but randomly to banks.	It is Economic but is channeled through micro-system to avail micro-concerns.	It is Economic concern but is marketed through MFBS because of low trading of poor segments.	It is Economics aspect but government shifted to Micro systems after subjection towards commercial banks.	It is financial, as is to eliminate poverty and provide finance for income generation.	Currently this issue is under concern as banks are not something totally trusted institute by poor so from commercial banks shift to MFBS and to MMDs b/c it's a state or economic issue, path used is not feasible initially by audience
<b>Q 4- Existence of market system function in Pakistan</b>									
E-	Whether the communicators of MFIs & MFBS focus on market system function while designing their messages in Pakistan or not	No market system exist in Pakistan and should be required to strengthen the Economy.	No such system available here.	No but required.	No, but badly required, for this roots of the system should be changed from every aspect because here the industry dimension is difficult and required own market system.	No, and even not required because prevailing mind set are different.	No, but required.	Yes, here market system is present.	No there is no such system even local or traditional system are not opting through described way, here the authorities decide and we are forcefully implement accordingly.

## Appendix C:

L	Incentives towards granting local training centers for increasing awareness towards F.I is opt by Pakistan.	Not required, instead just trust, convenience along with + WOM is required as training.	It is badly required to boost the financial education level.	Not currently present but required uniform curriculum to have sustainable increase across all segments.	Not currently for this basic schooling system should be changed.	Not present and even not required because a lot of resources and time is required for such changes which is difficult to have currently.	Not presently but agents can play role in this by increasing the education level of agents for training concerns will produce good outcomes.	Not present but it can play important role.	No such systems but if such things entered to this market will automatically bring awareness and its efforts over utilization will also bring positive outcomes.
T	Strategic Partnership is aimed to boosting level of F.I for commission purpose.	It is aimed to increase level of inclusion and it produce + results as currently NEP is formed the Strategic alliance with Telenor Group and Tameer bank.	Yes, it play an important role and currently the existing boost is some what contributed to this strategy.	Yes, it aimed to and even had produce results.	Yes, and it had produce + results. If we add quality aspect then more positive results will be occurred.	Yes, if the market know about financial inclusion a little bit is because of these strategic alliance.	Yes, because of this current improvements occurred and existing awareness is result of this effort.	Yes, it did like Easipaisa, Jazz cash.	Yes, we have opt very good results start with tameer & currently with NEP. SO have a state association concern now aim to bring changes along with influencing the opinions of associate authorities.
<b>Q 5- Causes for not having formal bank accounts</b>									
M	Causes behind Conservative thinking and psychology of poor and low income audience towards financial inclusion.	fear of taxation and issue of convenience.	Hesitation of people, trust and safety concern.	Purchase medium is cash so poor audience can maintain in hands then why they should opt different systems.	To avoid to enter into tax net. People already availing having no extra benefits of life. Trust and confidence is below zero. Imposed by US as a new devil like IMF.	Skeptic attitude of people towards these institutions.	they don't trust them.	Un-certainty and low trust level.	Pakistan family base system is the issue if only one has account rest of all depend upon it, not uniform capital ownerships, gender discrimination als here. In short current trust level is very less, so will lead to such problems.
F	Whether communication gap between supplier and demanders are the core issue behind low financial inclusion level.	No, the core issue is of product design as it is not as the need of poor.	Not the core issue.	One of major but not the core issue.	To an extend but soon this market is shifting towards cellular technology where the ability and environment concern of customers will be considered as core issue.	Not the core but is secondary.	It is issue but not the core.	Not the core issue.	Its not the core issue.
F	other issues highlighted by experts	Need recognition.	Message delivery to audience.	—	Uniformity in providing the cellular technology.	—	—	communication is issue but not just for providers and suppliers side but for the rest of system.	Issue is the mind set & educational level of poor or low income audience.
<b>Q 6- Questions related to indicate link between Neuromarket and Financial inclusion</b>									
B	Neuromarket technique will help to investigate psychology and perception of customers towards financial services	Strongly agree.	Strongly agree.	Strongly agree.	Strongly agree.	Agree	Agree	Strongly agree.	Strongly agree.

## Appendix D:

D	Investigating unconscious / emotional aspect help practitioner to solve issue of financial inclusion	if these techniques are able to bring true brain images then will definitely help to solve this issue.	Yes, but will require training of people how to use these techniques.	Yes, it will as from years it is ignored because not having measuring access to emotions, if these tools are available then will definitely produce effects.	Yes, it will as measuring the unconscious and use of neuro techniques will boost people trust and people will transact money through system will contribute to economy as what easipaisa and Jazz cash is doing.	initially reconsidered the existing Terminologies then using these techniques will produce effects.	Yes, it will help to solve this issue.	Yes it will.	Yes, after linking to some experimental studies or through using marketing platforms that approach to audience.
O	Market stimuli from expert's opinions	Convenience, WOM, identify need instead of inducing your created need, & introducing banking with Local language orientation base of employees.	Safety, Convenience, & Changing banking environment.	Changing banking environment, For language concern hire local persons, In ads Shows less furnished houses along with adding less expensive mobile phones, & Basic courses for financial education in schools.	Uniform internet connectivity (Convenience, Safety, & Comfort), Economic & finance basic course in schools, Official social media websites (Institute administrators aim to bring trust & ease) & Radio cellular phone (internet radio, intensive form of communication)	Changing existing terminologies, building trust along with convenience, & uniform internet accessibility to remote areas.	Training through agents, Trust building, Introduce local banking environment.	Building trust level	Should use different marketing messages display along with easy understanding such as bright and color themes as what is done by Tarang and gala recently, Need recognition is required, Marketing should focus on addressing that financial products is easy to managed, uniform connectivity
<b>Q7- Existing marketing platform for financial inclusion by MFBs</b>									
K	Marketing message related to F.I, addressing poor or low income for rural well are.	No, product oriented as directed by government.	No, product focus not customer focused.	Not.	Not for inclusion but did for Agri products like Green trackers, and should recommended to be enter by MFPS and Khushhali.	No.	No.	No.	Very few are doing but banks especially MFBs are not doing.
Q	Traditional techniques used by them are sufficient or not.	Not Sufficient.	Not Sufficient.	Not Sufficient.	Not Sufficient.	Not Sufficient.	Not Sufficient.	Not Sufficient.	Not sufficient.
R	Whether they should focus on PTV for delivery their	Strongly agree.	Agree	Strongly agree.	Strongly agree.	Agree	Agree	Strongly agree.	Strongly agree.
U	Expect few dominant players of mobile banking all are even failed to recognized by their names.	Yes, all other are not recognized with their brand name because of weak marketing.	Yes.	Yes.	Yes.	Yes.	Yes.	Yes.	Yes, they are not, b/c the difficult brand names along with few and difficult ads discriptions lead towards this.

## Appendix E:

No	Indexes	Sub-division within each index				
1	Awareness towards Nueromarket Approach	Level of familiarity towards Neuromarketing concept (A)	Decision making (Conscious & unconscious involvement (N)	Use of Neuro-Marketing technique (company association) (P)	_____	_____
2	Awareness & undersatnding of Financial Inclusion by adults	Using Services without having awareness (C)	Salaries through banks by Government (J)	_____	_____	_____
3	Existing Platforms for Financial Inclusion in Pakistan	Agent Banking for Financial Inclusion (G)	Quality of Information that Agents provide (H)	Customers trust on Agents (H')	Increasing marketing platforms (I)	Economic or banking issue (V)
4	Market System Function (MSF) in Pakistan	Focus of MFBs on Market System Function (E)	Granting Local training (L)	Strategic Partnership (T)	_____	_____
5	Causes for not having formal banking accounts	Conservative thinking and psychology of audience (M)	Communication gap of supply and demand (F)	Other highlighted gaps (F')	_____	_____
6	Link between Nueromarketing & Financial Inclusion	N-M techniques can bring out issue of low inclusion (B)	Investigating emotional/ unconscious aspects can highlight root cause to practitioners	Market Stimuli from expert opinions (O)	_____	_____
7	Existing Marketing Platforms for Financial Inclusion	Marketing messages for poor (K)	Use of traditional techniques (Q)	Should focus on PTV platform (R)	Knowing only few dominant players of market (U)	_____

## Appendix F:

Similar stimuli (at least by two participants)							
Convenience	Convenience		Convenience	Convenience			
	Safety		Safety	building trust	Trust building	Building trust	Trust
Need recognition							Need recognition
introducing banking with Local language orientation base of employees.	Changing banking environment.	Changing banking environment			Introduce local banking environment		
		Ads environment					Ads environment
		Basic courses for financial education in schools.	Economic & finance basic course in schools.				
			Uniform connectivity	Uniform connectivity			Uniform connectivity
Negative perception & psychology of Use PTV platform for marketing concern	Negative perception & psychology of Use PTV platform for marketing concern	Negative perception & psychology of Use PTV platform for marketing concern	Negative perception & psychology of Use PTV platform for marketing concern	Negative perception & psychology of Use PTV platform for marketing concern	Negative perception & psychology of Use PTV platform for marketing concern	Negative perception & psychology of Use PTV platform for marketing concern	Negative perception & psychology of Use PTV platform for marketing concern
Different stimuli							
WOM		For language concern hire local persons	Official social media websites (Institute administrators aim to bring trust & ease)	Changing existing terminologies	Training through agents.		Marketing should indicate product use is easy to managed
Should follow rules & regulations	Rules & regulations should be reduced	Reduce rules & regulations.	Rules & regulation make process more difficult	Rules & regulations is for ensuring security.	Rules & regulation should be reduced.	rules and Regulation is required	Rules & regulations should be reduced
			Radio cellular phone (internet radio, intensive form of communication)				