

# An Empirical Examination of Customer Retention in Mobile Telecommunication Services in Australia

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**Abstract:** The service quality has an impact on customer satisfaction and retention. From Telecommunication annual reports it has been investigated that there are service quality issues due to high complaints in Australia and it can affect end customers and businesses (TIO, 2013, ACMA, 2013). Factors such as behavioural intention which leads to customer intention to repurchase the service are measured through the Unified Theory of Acceptance and Use of Technology (UTAUT2), Marketing Mix Theory and Expectation Confirmation Theory (ECT). Similarly, researchers have studied the habit, hedonic motivation, customer satisfaction, customer experience, marketing mix factors relationship by empirical testing. There has been very little research in the area of customer retention in mobile telecommunication services. Drawing upon theories of marketing mix, ECT and UTAUT2, this study aims to determine what factors affect customer retention in mobile telecommunication services in Australia. Data gathering will be done through online surveys from Australian consumers. Quantitative data analysis techniques, structural equation modelling (SEM) will be used for data analysis. This study will contribute to the customer retention literature through a theoretical framework that shows how the customer retention can be generated in mobile telecommunication services. Additionally, this study will help businesses to have understanding of how to retain their customers which will result in higher business revenues.

## 1 INTRODUCTION

The service quality has an impact on customer satisfaction and retention. Higher complaint rates in telecommunication annual reports (ACMA, 2013; TIO, 2013; TIO, 2014) have revealed that there are service quality issues in this sector in Australia. The current complaints' trend can affect mobile customers and service providers' businesses. According to Morgan (2014) there are 16 million mobile phone customers in Australia. According to Australian Communication Media Authority (ACMA), mobile users are as follow;

Table 1: Percentage of Mobile Phone Users (Morgan, 2014).

Mobile Operators	Telstra	Optus	Vodafone	Others
Market Percentage	40%	24.8%	20.9%	15.3%

The Telecommunication report TIO (2010) states that service quality of many telecommunication operators is very poor due to high number of complaints, bad customer experiences and customer

satisfaction issue. Service providers are doing service upgrades and expansions in order to meet these market challenges. Service providers need to provide better data services and they need to upgrade technology from 3G (3rd Generation) to 4G (4th Generation) mobile technology for provisioning of faster data services. During the roll-out of network and services, lack of proper planning leads to poor customer service to clients (Hopewell, 2014, news, 2012; Taylor, 2013). This can contribute to poor voice and data services. TIO invoiced Telstra for \$15,273,136 during 2013 for complaint handling fees (TIO, 2013). Moreover, BigPond was charged an additional \$3,039,847 for TIO complaint handling fees. Optus was invoiced a total of \$4,084,414 in complaint handling fees, AAPT \$563,547 and iiNet just \$137,906 (TIO, 2010). Vodafone Hutchison Australia (VHA) has reported 216,000 customers leaving the network in the first three months of 2013 (Taylor, 2013). Similarly, Optus had 9.59 million mobile customers in March 2014, this number dropped by 160,000 to 9.43 million at the end of first quarter (News, 2014).

Hence, TIO and (Australian Communication and Media Authority) ACMA reports can help in concluding the difference between customer expectation and service provider performance. From TIO and ACMA reports (ACMA, 2013; TIO, 2012; TIO, 2013), the breakdown of most prominent complaints are network faults including voice calls, data and billing issues comprises of 52 percent of complaints. The remaining 47 percent of complaints are related to contract issues and VAS (Value added services). The service failure in service industry is predictable due to the human involvement in the service delivery process, which eventually creates vitality for service providers to obtain complaints from angry or dissatisfied customers, in order to, retain them by provisioning of quick recovery option (Kaur and Sharma, 2015). In today’s cutthroat competitive environment, negligence in customer service or service quality can lead to business loss, which is not affordable in terms of cost of acquiring new customers. It is important to formulate proactive strategies to retain customers by determining the antecedents behind customer complaining behaviour (Karatepe, 2006; Kaur and Sharma, 2015). This behaviour is developed with experience and direct or indirect interaction with service (Meyer and Schwager, 2007). Customer experience is a term that explains customer collective incident with service provider and it also helps to determine the durability of relationship of that customer with service provider (Islam and Rima, 2013). This research study attempts to find out the factors that have a significance influence on customer retention in telecommunication services.

The current study seeks to develop a framework to assist business using this extended UTAUT2 model to improve customer retention in mobile telecommunication services.

To achieve this objective, the primary question is formulated:

What are the key factors that influence customer retention in mobile telecommunication services in Australia?

Sub-questions are:

1. To what extent do these factors affect customer retention?

2. What is the influence of age, gender and experience as a moderating factor between antecedents and dependent variable in the extended Unified Theory of Acceptance and Use of Technology model?

The next section will discuss the literature review.

## 2 LITERATURE REVIEW

This section reviews prior literature on customer retention and behavioural intention. Table 2 shows a summary of this literature review. Customer acquisition which is acquiring a new customer is most costly when compared to retaining existing customers (Edward and Sahadev, 2011). Moreover, customers can be devoted customers if companies can offer someone who can understand their journey and needs. The consequent increase in business revenue is directly related to customer retention (Edward and Sahadev, 2011; Santouridis and Trivellas, 2010).

Table 2: A Summary of Previous Literature on Customer Retention.

Dependant Variable	Author(s)/Year	Theory Used
Behavioural Intention (BI)	(Abubakar and Ahmed, 2013, Chomley, 2014, De Canniere et al., 2009, Escobar-Rodriguez and Carvajal-Trujillo, 2013, Ha and Jang, 2009, Kuo and Yen, 2009, Lopez-Nicolas et al., 2008, Venkatesh et al., 2012, Wu et al., 2008)	Theory of Planned Behaviour (TPB), Technology Acceptance Model (TAM), Social Influence, Social Impact, Theory of Reasoned Action (TRA), Trust Transference, Theory, Unified Theory of Acceptance and Use of Technology (UTAUT, UTAUT2)
Customer Loyalty	(Chang and Chong, 2011, Chou et al., 2014, Deng et al., 2010, Liu, Guo et al., 2011, Olsen, 2002, Van Vuuren et al., 2013)	TAM, TRA, UTAUT, Expectation Confirmation Theory (ECT)
Intention to Revisit	(Venkatesh et al. 2003, Venkatesh et al. 2012, Ghalandhari 2012, Fong and Wong 2015)	TRA, TAM, UTAUT and UTAUT2
Customer Retention	(Chatura and Jaideep, 2003, Edward and Sahadev, 2011, Kassim, 2006, Ray and Chiagouris, 2009, Roberts-Lombard, 2009)	TRA, TAM, Social Influence and TPB
Continuance Intention	(Lee, 2010, Liang et al., 2011, Limayem et al., 2007, Roca et al., 2006, Vatanasombut et al., 2008, Wangpipatwong et al., 2008, Zhao et al., 2012, Zhou, 2013)	TRA, TAM, TPB, ECT and Social Support

### 2.1 Customer Retention

Customer retention is discussed as the factor which helps in maintaining the business relationship between a supplier and a customer (Gerpott et al., 2001). This is further discussed in different ways. The

first one is argued as the customer's extension of contract with service provider over a period of time. The second one is emphasized on intention of customer to repurchase the service in future from service provider. Moreover, it is further observed that customer refraining from terminating or leaving the contract also refers to customer retention (Gerpott et al., 2001).

It has been argued by Reichheld et al., (1989) that reducing the defection rate by 5% will generate 85% profit. In addition to this, more loyal customers are less likely to switch their service providers due to billing and pricing factors. Moreover, loyal customers or retained customers also tend to recommend the business to other friends, family and social circle through positive word of mouth (Reichheld et al., 1989; Santouridis and Trivellas, 2010).

The study will focus on customer retention with the main focus on factors influencing retention in telecommunication industry. While the direct effect of service quality, trust and perceived value on customer retention has been the main focus of many previous studies (Zhou, 2013; Zhou and Lu, 2011), other factors such as social influence, habit, hedonic motivation, marketing mix factors, and customer satisfaction relationship and its effect on customer retention has not been explored with adequate empirical and theoretical support (Liu et al., 2011). This study will determine the factors which can impact the customer retention.

In different studies, relationships among marketing mix factors, habit, switching barriers, social influence, customer experience and behavioural intention which lead to customer loyalty, continuance usage and relationship commitment have been examined (Lee et al., 2008; Yadav et al., 2016). But less attention has been given to customer retention in the telecommunication service industry. There is no empirical study to date that has investigated these factors in a single framework of study as all the above mentioned studies investigated relationship with customer retention in a different framework. Therefore, very little investigation has been done to identify factors impacting on customer retention. This study will help to develop a comprehensive model which will focus on technical service quality and customer behavioural issues which can help businesses improve customer retention. It will also examine retention with the help of associated factors in the context of telecommunication mobile services in Australia.

## 2.2 Behavioural Intention

The main variable of concern for this study is behavioural intention to determine customer retention. Previous studies, such as (Abubakar and Ahmed, 2013; Mandal and McQueen, 2012; Venkatesh et al., 2012) determined that behavioural intention is the most significant measure of actual behaviour. A further study explains that increasing customer retention, minimising the rate of customer defections are primary keys to the capability of a service provider to make profits (Tsai and Huang, 2007). In addition, behavioural intentions are linked with service provider's capability to attain new customers. Therefore, behavioural intention plays a vital role in customers' decision to repurchase the service.

## 3 THEORETICAL FRAMEWORK

The theoretical framework for this study is based on the concepts of selected marketing-mix product, place, promotion, physical evidence, process and price along with SERVQUAL model which measures service quality for customer experience, Unified Theory of Technology Acceptance (UTAUT 2) and Expectation Confirmation Theory (ECT). The following section will discuss the detail of these theories. The marketing mix concept is one of the core concepts of marketing theory. McCarthy (1960) explained the concept of basic marketing mix 4P's (product, price, promotion and place) in service industry. These theories were used for the following reasons: first, these theoretical approaches and this model will help to investigate customer retention in mobile telecommunication services as other studies focus on customers' intentions to adopt the mobile technology such as internet, 3rd and 4th generation mobile service. Secondly, many studies have utilised different theoretical approaches to study consumer attitudes in the marketing, e-commerce and e-service contexts (Lin and Hsieh, 2011; Straub et al., 2004), yet marketing mix and expectation confirmation theory has yet to be used to study customer retention in the mobile service context. These theoretical approaches have assisted to identify eleven possible factors and their relationships that influence customer retention in mobile telecommunication services.

### 3.1 Proposed Model and Hypotheses

Based on UTAUT 2 model, marketing mix theory, expectation confirmation theory and previous studies

(Venkatesh et al., 2003), the following conceptual model is proposed. The previous studies (Anaman, 2010) developed customer experience model and factors affecting customer experience. The phenomenon of customer retention in light of customer experience is not very well investigated in recent studies (Maklan and Klaus, 2011). There is no single framework which is used to test UTAUT with customer retention and the factors affecting customer retention with customer experience. Thus, in this study age, gender and experience will act as a moderating factor. Accordingly, this study model has integrated these constructs along with other constructs such as customer experience, customer satisfaction, selected marketing mix factors such as product price value, behavioural intention, and UTAUT 2 model factors in order to evaluate customer retention. The above discussion would lead to the following conceptual framework and hypotheses mentioned in Figure 1. There is positive relationship between the factors is mentioned in below Figure 1 as hypotheses.

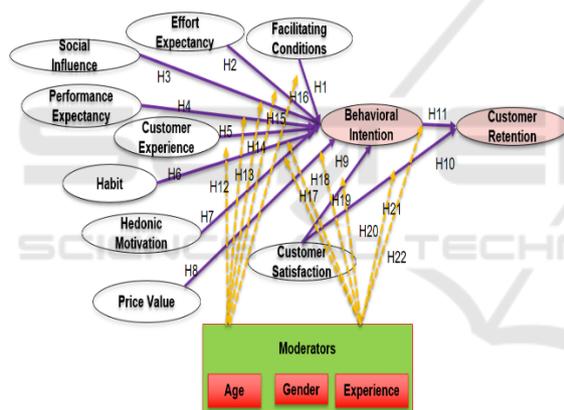


Figure 1: Conceptual Model and Hypothesis.

## 4 RESEARCH METHODOLOGY

The main drive of the research follows the deductive method of reasoning. This helps in order to validate and cover previously agreed hypotheses on behavioural intention that are very relevant to a customer purchase intention. This is an essential characteristic of the positivist paradigm. The positivist methodology is based on experiments, hypothesis testing, validity, verifications and quantitative methods of study. Research questions are derived from a literature review. The research instrument for the instrument development process adopts Churchill's procedure (Churchill Jr, 1979).

The survey questions are based on existing literature from previous studies.

This research will focus on all the impacts, whether technical or behavioural, which can influence customer retention. In order to achieve the research objective, a quantitative method will be employed by utilizing a questionnaire. In this study, participants will be recruited from all states in Australia by using marketing company's databases. It strengthens the result that can be obtained from a certain population. The sample size for the main study is around 2000 (Uma and Roger, 2003). The conceptual model of this study will be tested using structural equation modelling (SEM). The SEM analysis will be used to test the hypothesised relationships among the factors.

## 5 CONCLUSION AND FUTURE WORK

In this study, the underline antecedents of customer retention will be identified. These antecedents are based on UTAUT theory, such as behavioural intention, customer experience, customer satisfaction, habit, hedonic motivation, social influence, performance expectancy, effort expectancy and marketing mix factors. The proposed framework will be empirically tested from data collection. Hence, after data analysis, it will be concluded how these factors affect customer retention in mobile telecommunication services in Australia. It will help to decrease customer complaints and improve customer experience by implementing the implications derived from this study. It will lead service providers to improve competitive advantage and customer retention.

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