

# ANTECEDENTS OF CUSTOMER LOYALTY IN THE TELECOMMUNICATIONS INDUSTRY-EVIDENCE FROM MAURITIUS

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## ABSTRACT

*This paper explores the factors impacting upon customer loyalty among customers in the telecommunications industry in Mauritius. This study has employed the Theory of Reasoned Action (TRA) as the underpinning theory to explain customer loyalty. The survey was conducted using self-administered questionnaire. Out of a total of 325 questionnaires, 300 were usable indicating a response rate of 92.3%. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 3.0 software. Results of the study revealed that brand image, price, perceived trust and perceived service quality significantly impact on customer satisfaction and loyalty. The proposed model has shed light on the important factors determining customer satisfaction and customer loyalty and will aid marketing managers to understand and identify the specific antecedents of service quality and trust that may influence customer satisfaction and loyalty. This study has offered numerous theoretical and practical insights to the academic community, policy makers and practitioners of mobile operating sectors of small and developing island economies. Although, the validated model for driving customer loyalty in the telecommunications sector represents an innovative approach of understanding customer loyalty from both theoretical and practical perspective, there are other antecedents of customer loyalty that should be tapped in future research on customer loyalty to increase the predictive power of the model. This research is one of the pioneers conceptually driven studies that has made a unique attempt to explore customer loyalty from grounded theoretical underpinnings for small developing states. Likewise, this research offers a new practical roadmap on how telecommunication providers can enhance customer loyalty in a small developing state.*

**Keywords:** Smart PLS, Customer Loyalty, Customer Satisfaction, Trust, Telecommunication Industry.

## INTRODUCTION

Businesses are increasingly relying on their loyal customers to withstand the unprecedented competitive market pressures. Although there is no universally agreed definition of consumer loyalty (Oliver, 1999), Wel, et al. (2011) define a loyal customer as someone who has the intention to buy the same product or services at all the time as he is emotionally attached and committed to the product/service. Loyal customers are highly beneficial to businesses. For example, Lawfer (2003) considered that while it is more expensive and time consuming to find

new customers, retaining existing customers is relatively easy and more profitable. Loyal customers are also more likely to provide the firm with strong word of mouth endorsement as they normally have more confidence in the firm compared to new customers (Wilson et al., 2012). Therefore, realizing the importance of customer loyalty to the creation of competitive advantage, many businesses have developed loyalty programs aimed at retaining customers. Nevertheless, effective customer retention strategies depend significantly on an understanding of the factors affecting customer loyalty. The factors affecting customer loyalty are well documented in existing literature. Several theories including the Social Exchange Theory, the Expectancy Theory as well as the Theory of Reasoned Actions (TRA) have been applied to reconceptualize consumer loyalty. Based on these theories, several antecedents of customer loyalty have been drawn and tested in different settings. For example, Ed-Adly (2019) found that self-gratification, price, quality, transaction, hedonic dimensions has a significant direct positive effect on customer satisfaction and/or customer loyalty in the hotel industry. More recently, Iglesias et al. (2020) identified CSR and trust as significant predictors of customer loyalty. In the banking sector, reliability, privacy and security were found to have a positive influence on customer loyalty to e-banking (Shankar & Jebarajakirthy, 2019).

Over the years, the globalization of the telecommunication industry, fueled by the rapid advances in telecommunications technology, has put a lot of pressure on telecommunication operators in many countries around the world. On the one hand, they are faced with the growing sophisticated customer demand and on other the hand they have to cope with competition from established global telecommunication operators. Likewise, the Mauritian telecommunication sector has, since the 1990's, witnessed major transformations following the establishment new local and international telecommunication operators as well as the setting up of international companies like WhatsApp, Facebook or We Chat which have redeveloped the consumer experience by providing free video and messaging services. Moreover, as consumers seek ongoing better-quality services at a reasonable price and they may be tempted to switch from one operator to another. Therefore, since it is relatively easier to retain existing customers than to attract new ones, it is believed that telecommunication operators in Mauritius should formulate effective strategies to retain loyal customers and to attract new ones. In this respect, an understanding of the factors influencing customer loyalty is key. This is also in line with the customer service theory which portrays the customer as a co-creator of value. Although, a review of existing literature revealed that the antecedents of customer loyalty in the telecommunication industry has been researched in few countries namely, Albania (Tabaku, 2015), Saudi Arabia (Khanfar, 2015); Nigeria (Oghojafor, 2014); Korea (Kim, 2016); Sweden (Vicente, 2015), it is evident that no such study has been conducted in the context of a Small Island State Developing State (SIDS) like Mauritius. Against this backdrop, the present study aims at exploring the factors impacting upon customer loyalty among customers in the telecommunications industry in Mauritius. Consistent with existing literature, this study used the Theory of Reasoned Action (TRA) as the theory base/guiding framework to predict the antecedents of customer loyalty towards telecommunication service providers in Mauritius. This research offers a novel theoretical outlook to understand the antecedents of customer loyalty in small developing states. Hence, this original theoretical research will also enable the policy makers of telecommunication sector to promote greater sustainable customer loyalty strategies.

The paper is organised as follows. In the following section, we provide a review of the literature on TRA as the theoretical underpinning of this research. Subsequently, the factors influencing customer loyalty and satisfaction are discussed by referring to existing empirical studies. The method, sampling and data collection procedures employed in the study are then

explained in the third section. In the last section, we present findings of the study, followed by the recommendations, managerial implications, conclusion, limitations and scope for future research.

## LITERATURE REVIEW

### Theoretical Underpinning of the Study- Theory of Reasoned Action (TRA)

Developed by Fishbein & Ajzen (1980), the TRA posits that the performance of behavior depends on the individual's intention to engage in it. According to the TRA, two factors determine the intention to engage in a behavior namely attitude towards the behavior and subjective norms (perceived social pressures). To Hansen, Jensen and Solgaard (2004), the TRA can be effectively used to investigate the relationship between intention, attitude and behaviours. In a similar vein, social scientists consider that the knowledge of someone's feeling and attitude can be used to predict his future behavior. According to Hsu & Lu (2007), the behavioral intentions (likelihood of performing the behavior) depends on the attitude. On the other hand, literature on consumer loyalty widely recognizes that attitude and opinion are developed from consumer's own experience of things and objects (Karjaluo, Mattila & Pento, 2002). Although Azjen (1991) reinforced the TRA into the Theory of Planned Behaviour (TPB) by including "Perceived behavioral control", Sulehri & Ahmed (2017:263) consider that TRA is still being used in marketing studies to predict consumer behavior.

Drawing from existing literature (TRA) and empirical studies on consumer loyalty, we develop a research model (Figure 1) in which users' continuance intention (loyalty) is influenced by the degree of customer satisfaction. In theory, purchase intention is likely to be strengthened when a consumer is satisfied with product/service. Tzokas et al. (2004) identified customer satisfaction as the most widely used construct to measure consumer's experience while Oliver (2010) consider satisfaction as being key in predicting purchase intention and maintaining loyalty. Existing literature on consumer loyalty have concluded that customer satisfaction has a positive impact on buying intention. Several factors can influence the consumer behavior and intention to generate consumer loyalty. For example, favorable perceptions towards the quality, trust, price and brand image of a product lead to satisfaction (Aslam, Arif, Farhat & Khursheed, 2018:180). When satisfaction is high, a positive attitude the product is developed which in turn increases purchase intention (customer loyalty) (Guo et al. 2009).

### Customer Loyalty

As global competition intensifies, many businesses realise that the key to long term success resides on the establishment of long term relationship with existing customers rather than optimizing the price and quality. Customer loyalty, as a concept, has gained the attention of researchers and academics over the last seven decades. Several approaches of customer loyalty are presented in the literature. In the earlier days, the behavioral approach which looked at brand loyalty in terms of outcomes (i.e. repeat purchase behavior) was the dominating paradigm (Abbasi et al., 2011). Under this approach, buying frequency, buying pattern and buying probability were the key indicators that were used to determine customer loyalty. Based on the reason of acting, Kuusik (2007) classifies behaviorally loyal customers into the following three categories:

1. *Forced to be loyal*- Customers have to buy the products when (i) there is one supplier in the market or (ii) the consumer's financial condition is poor.
2. *Loyal due to inertia*- Customers continue to use the same product based on their faith in the suitability of the current product or due to the low importance attached to the product.
3. *Functionally loyal*- Customers are loyal because they have an objective reason to be. Functional loyalty can be created by functional values including price, quality, distribution, usage convenience of a product or through different loyalty programs (points, coupons, games, draws etc.). However, these values are not sustainable as they can be replicated easily by competitors.

However, Caruana (2002) criticized the behavioural approach for focusing primarily on the behavioral aspect of loyalty, with little attention was given to psychological aspects of loyalty. In a similar vein, Makanyeza (2015) considers that repeat purchase is not a good indicator of loyalty. Subsequent developments in the study of loyalty integrated both the behavioral and psychological (attitudinal and emotional) elements of loyalty. Based on these two elements, Hofmeyr & Rice (2000) classify customers as loyal (behavioral) or committed (emotional). According to Abbasi et al. (2011), emotional loyalty is stronger and long lasting than behavioral loyalty since emotional loyal consumer tends to be highly bonded with the company.

### **Factors Affecting Customer Satisfaction and Loyalty**

Consistent with existing studies (such as Danish et al., 2015; Khanfar, 2015), this study proposed to assess the impact of four main factors that are likely to influence customer satisfaction and loyalty towards telecommunication service providers in Mauritius. These factors include Brand Image, Price, Service Quality, and Consumers' Trust.

### **Brand Image**

Brand is interpreted as "a name, term, sign, symbol, or design, or a combination of these that identifies the maker or seller of a product or service" (Ismail, 2014). Brand image represents a set of values or beliefs which allows consumers to develop an overall impression about the company's offerings. According to Das (2012), brand/company/corporate image is key in determining consumer satisfaction and loyalty as it helps to create, build, and maintain good relationships with consumers. To Shahzad et al. (2013), the image of the telecommunications companies provides support to consumers in gathering data and differentiating between brands as well as in creating the right reason to buy. In a similar vein, Chen et al. (2011) note that when a consumer buys a product or service from a reputed company, he/she becomes faithful and satisfied to that particular product. On the other hand, a negative brand image will have the exact opposite influence on customers (Wang, 2010). The impact of brand image on customer satisfaction has been widely researched. According to Wu (2011), most of the studies concluded that brand image positively influenced customer satisfaction. However, Lazarevic (2011) found that brand image is one of the most complex factors influencing consumer loyalty as it demands a lot of attention from consumers to monitor and understand the ongoing situations surrounding company. Nevertheless, Yu et al., (2012); Zeithaml et al. (2006) advised that the relationship between brand image and customer satisfaction must still be reassessed and tested for a better validation. Therefore, the first hypothesis set for this study is as follows:

*H0: There is no relationship between brand image and customer satisfaction.*

*H1: There is a positive relationship between brand image and customer satisfaction.*

## **Price**

Consumers view price as a monetary cost to purchase the product or service. According to Haquea et al. (2011), price emerged as a key determinant of consumers' buying decision due to intense competition amongst telecommunication service providers. Customers are generally attracted by telecommunications service providers that offer cheaper products and services (Reena, 2012). Several factors affect the price of telecommunications goods and services namely, the legal environment and government policies, the willingness of the purchaser to buy, acceptable mark-ups and the intensity of present competitors (Mokhtar et al., 2011). Moreover, the price charged to telecommunication subscribers may depend on the usage (Keramati et al., 2011) or the bundle of services opted by the users. The relationship between price and consumer satisfaction and loyalty has been tested in different contexts. The results of existing studies are mixed. For instance, a study by Khanfar (2015) identified price as a significant predictor of consumers' satisfaction and loyalty among Saudi Arabian telecommunication users. Similar findings were found among Nigerian telecommunications users (Adeleke et al., 2012). Other studies such as Kim et al. (2016); Martin-Consuegra et al. (2007), however, did not find a significant relationship between price and consumer loyalty.

According to Ranabhat (2018), consumer satisfaction depends significantly on the extent to which the price charged by the telecommunication service providers is perceived as being fair and reasonable. In general, perceptions of unfairness generally influence consumer's perceived value and satisfaction which in turn lead to negative behavioral response by the customers (Mandira et al., 2016). The fact that consumers can compare different price packages of various telecommunications service providers (Haque et al., 2007) make them more price sensitive. Therefore, one may expect that increased price satisfaction will lead to reduced price sensitivity. Price is also a key determinant of customer satisfaction since consumers assess the service value by its price. Al-Msallam (2015) predicts that consumer loyalty will increase if consumers are satisfied with the prices set by the company. Thus, the following hypothesis is formulated in the context of this study:

*H0: Price does not influence customer satisfaction.*

*H1: Price positively influences customer satisfaction.*

## **Service Quality**

Another antecedent of customer satisfaction is service quality which can be defined as the extent to which the real service meets the customer's needs and expectations. In the context of the present study, the quality of the service can be evaluated in terms of (i) the technical quality (i.e. what the consumer obtains upon the purchase) and (ii) functional quality (i.e. how the service has been presented or delivered). If the service received is as per the customer's expectations, then the quality of the service is perceived as good and satisfactory (Mandira, et al. 2016). On the other hand, if the service received is below the expectations then the quality of the service is perceived as bad. Many studies have consistently demonstrated that service quality significantly impacts on the customer satisfaction and loyalty as well as on the performance of

telecommunications service providers. For example, Tabaa (2016) identified service quality as one of the most influential factors affecting consumer satisfaction and loyalty among telecommunication users in Indonesia. In a similar vein, Nsiah et al. (2014) note that service quality greatly contributes to the company's performance due to an increase in the rate of consumer retention. Furthermore, Cronin et al. (2000) added that a good service quality drives customer satisfaction which then impacts positively consumer loyalty. Since the company's survival depends significantly on how well is the customer served, most companies are continuously keeping track on the service quality to guarantee maximum customer satisfaction and enhance consumer loyalty (Muyeed, 2012). Based on this description, it can be hypothesized that,

*H0: Service quality does not influence customer satisfaction.*

*H1: Service quality positively influences customer satisfaction.*

### **Consumers' Trust**

Ponder et al. (2016) defined consumers trust as a "way of having beliefs and confidence which the consumer adheres with particular companies". According to Watson IV et al. (2015) and Akbar et al. (2010), consumers' trust is the "cornerstone of a good and long-lasting relationship between consumers and the telecommunications companies". A study by Harrison et al. (2012) revealed that long-term profits of telecommunication companies depend significantly on the consumers' trust. The importance of trust on consumer loyalty has been acknowledged among Finnish telecommunication subscribers (Karjaluo et al., 2020) and Ghanaian telecommunication users Ofori (2016).

According to Sarkar et al (2016), consumers' trust reduces the potential transactional risks and increases the probability that consumers will engage in future sales due to the long-term relationship between consumers and the telecommunications company (Sarkar et al. 2016). In the telecommunication industry, several factors contribute towards the development of trust among subscribers such as security and privacy (Cheng et al., 2014), the authenticity of the products and services as well as the employees' behaviours and attitude towards customers. These aforementioned factors guarantee that the customer will continuously gain value from future transactions with the telecommunications service provider (Laroche et al. 2013; Nguyen et al, 2013). Existing literature consistently draws the positive link between consumers' trust and consumer loyalty (Moreira et al., 2015) and customer satisfaction (Yoon, 2002; Crosby et al. 1990). Thus, with regards to the above given arguments, the following hypotheses is proposed:

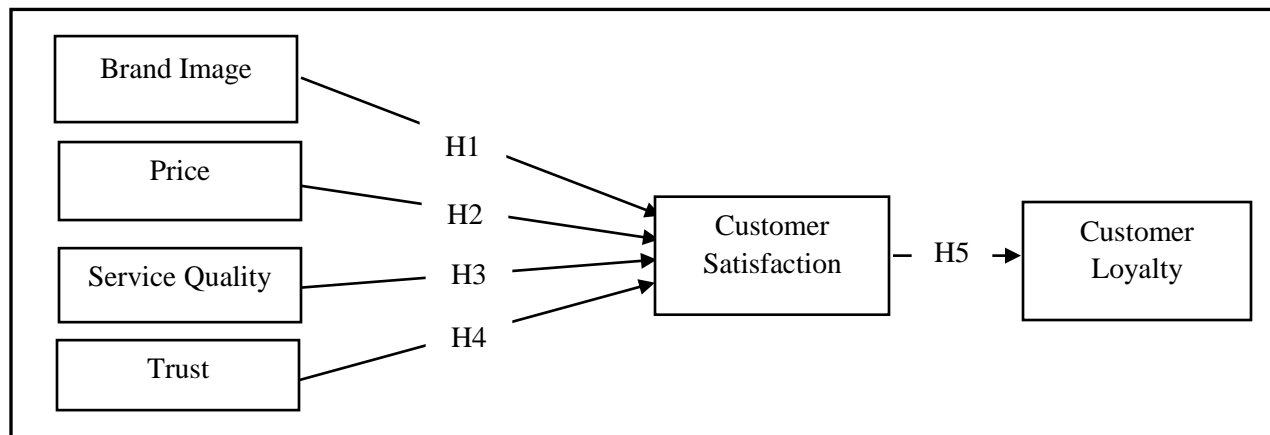
*H0: There is no relationship between trust and customer satisfaction.*

*H1: There is a positive relationship between trust and customer satisfaction.*

The relationship between customer satisfaction and consumer loyalty.

Beard (2014) defined customer satisfaction as an individual's sentiment of contentment or regret that has resulted from the comparison of the perceived outcome of a product or service with regards to the expectation of the customer. Customer satisfaction is considered as the most

effective determinant which affects consumer loyalty (Kannig, 2010). It is also capable of predicting customer services as satisfied consumers will tend to purchase again from the same company (Nguyen et al., 2018). As previously mentioned, all the four factors given earlier, Brand Image, Price, Service Quality, Consumers' Trust, are all related to customer satisfaction which thereby impacts consumer loyalty. In their studies, Chang et al. (2011) and Morgan et al. (2017), noted that there is indeed a very positive relationship between customer satisfaction and consumer loyalty in the Malaysian and South African Telecommunications industry. Similarly, another study by Daikh (2015) on the same topic deduced that consumer loyalty and customer satisfaction are 'the two sides of the same coin.' Without the presence of one of these two variables, the other cannot be effected as expected. Consumer loyalty will tend to increase when customer satisfaction accomplishes a particular level in any telecommunications industry. If consumers are satisfied with the telecommunications services, there will be repeat purchasing and also, positive experiences will be spread to others to increase the consumer loyalty of the business. Bae (2012) added that, the longer time a consumer remains satisfied, the longer time he/she stays loyal to the company and often patronizes about the company's goods and services in the future. This will eventually lead to more revenue and thereby more financial gains for the company (De Franzo, 2012). However, in a study by Oghojafor (2014) on the factors affecting Nigerian consumer loyalty, the association between the latter and customer satisfaction was deemed to be not strong enough. According to Irit et al. (2011), other factors such as trust and commitment outweigh customer satisfaction and have a stronger relationship with customer loyalty. This can be because, customer satisfaction may not always mean that it is crucial for increasing consumer loyalty as satisfied consumers may always switch to other telecommunications operators where they believe that the same products and services will be offered with superior quality and value.



**FIGURE 1**  
**CONCEPTUAL FRAMEWORK**

### RESEARCH METHODOLOGY

This quantitative study aimed at exploring the factors impacting upon customer loyalty among customers in the telecommunications industry in Mauritius. Drawing from the Theory of Reasoned Action (TRA) and empirical studies, the conceptual framework and the hypothesis

were established. A questionnaire was designed to gather relevant information for testing the hypothesis and validating the proposed conceptual framework. The target population constitutes of landline phone subscribers who reside in the nine districts of Mauritius. According to the Statistics Mauritius (2021), there are around 458,000 landline phone subscriptions in the island.

### Research Instrument

Given the nature of the study, a structured questionnaire comprising primarily of close ended questions was designed. The research instrument contains three sections and the items were adapted by referring to extant literature (Refer to Table 1 and Table 2). A five-point Likert scale (1 = strongly disagree, 2= disagree, 3 = neither agree nor disagree, 4= agree and 5 = strong agree) was used to determine the respondents' level of agreement and disagreement to each statement for Customer Loyalty (CL), Customer Satisfaction (CS), Brand Image (BI), Price (P), Service Quality (SQ) and Consumer Trust (CT). The questionnaire was pilot tested among 10 randomly selected participants to explore any issues that may affect the survey results. Since no issue was noted in the way the questions were structured and presented, the researchers proceeded with data collection on a larger scale. Out of the 325 questionnaires distributed, 300 were retained for further analysis indicating a response rate of 92.3%.

<b>Table 1</b>		
<b>DESCRIPTION OF THE INDEPENDENT VARIABLES IN THE MODEL</b>		
<b>Brand Image (BI)</b>		<b>Adapted from</b>
BI1	The company has a good reputation of fulfilling its promises and commitments.	Deng et al. (2010)
BI2	The company is fair and honest towards its consumers.	Eshghi et al. (2008)
BI3	The company is a reliable and trustworthy company.	Gelaidan (2012)
BI4	The company is an innovative and forward-looking telecommunications company.	Deng et al. (2010)
BI5	The company is highly involved in social contributions towards societies.	Aydin and Özer. (2005)
<b>Price (P)</b>		
P1	The prices of the products and services are affordable to me	Tseng and Lo (2011)
P2	The company has good promotions compared to its rivals.	Chen and Dubinsky (2003)
P3	I receive value for money products and services with the company.	Adeleke and Sirajul (2012)
P4	I benefit from discounts and incentives to buy products and services from the company.	Morgan and Govender (2017)
P5	I am sure that any other telecommunications operator cannot beat the prices of the company.	Aydin and Özer (2005)



<b>Service Quality (SQ)</b>		
SQ1	The company provides good quality of services as promised to its consumers.	Cheng and Dubinski (2013)
SQ2	I rely on the services that are provided by the telecommunication company.	Caruana (2002)
SQ3	The company introduces new services on a regular basis.	Adeleke et al. (2012)
SQ4	Employees of the company understand the specific needs of the customers.	Host and Knie-Andersen (2004)
SQ5	The company handles effectively its customers' complaints.	Rahhal (2015)
<b>Customer Trust (CT)</b>		
CT1	I trust the company to provide me with consistent good quality services.	Morgan and Hunt (1994)
CT2	The company acts with good intentions towards its customer.	Karjaluoto et al. (2012)
CT3	The company caters for its consumers' best interests.	Koufaris and Hampton-Sosa. (2004)
CT4	I trust the commitments and promises made by the company.	Carrizo Moreira et al. (2017)
CT5	The company understands its consumers very well.	Karjaluoto et al. (2012)

	<b>Customer Satisfaction (CS)</b>	<b>Adapted from</b>
CS1	I am very satisfied with the products and services offered by the company.	Hassan (2013)
CS2	The products and services provided by the company are close to my expectations.	Türkyilmaz and Özkan (2007)
CS3	I am satisfied with the decision of choosing this company as my telecommunications operator.	Carrizo Moreira <i>et al.</i> (2017)
CS4	The company always makes an attempt to satisfy my needs.	Chen and Lu (2004)
	<b>Customer Loyalty (CL)</b>	<b>Adapted from</b>
CL1	I am loyal to the company and will not switch to any other telecommunications service provider.	Deng <i>et al.</i> (2010)
CL2	I intend to purchase more products or services from the company in the future.	Morgan <i>et al.</i> (2017)
CL3	I will recommend my family and friends to purchase telecommunication products or services from the company.	Foxhall (2002)
CL4	I will remain loyal to the company even if the price of its competitors' products or services decreases.	Akroush <i>et al.</i> (2011)

### Data Collection and Sample

The questionnaire was distributed among landline phone subscribers residing in the nine districts of Mauritius. The questionnaire administered via Google Forms was sent to respondents through email and social media platforms including Facebook, WhatsApp and Instagram. In this study, we used a non-probability (convenience) sampling as it was considered the most effective way of reaching out the respondents during the COVID-19 confinement period. Moreover, respondents were invited to share the survey link (through mail or social media network) with friends and colleagues within their networks. The characteristics of the sampled respondents are summarized in Table 3. The respondents comprised of 58% females and 42% males. Regarding the respondents' age, 63% were in the age bracket (18-29 years old), 19% were aged in the age group (30 to 40 years) and the remaining 18% were older than 40 years old. Majority of the respondents 32% hold a Bachelor Degree, 28% studied up to the secondary level and 21% were holder of a Diploma. 43.5% of the respondents were subscribers of the landline phone services for more than 10 years while half of them (51%) hold a landline phone for 3 to 10 years.

<b>Variable</b>	<b>Categories</b>	<b>N</b>	<b>%</b>
Gender	Male	127	42
	Female	173	58
<b>Total</b>		<b>300</b>	<b>100</b>
Age	18-29	189	63
	30-40	57	19
	Above 40	54	18
<b>Total</b>		<b>300</b>	<b>100</b>
Education Level	School Certificate	21	7
	Higher School Certificate	63	21
	Diploma	63	21

	Undergraduate Bachelor Degree	96	32
	Postgraduate Degree	54	18
	Others	3	1
<b>Total</b>		<b>300</b>	<b>100</b>
Number of years subscribed to landline phone	<3 Years	15	5
	3-5 Years	57	19
	6-10 Years	97	32.5
	Above 10 Years	131	43.5
<b>Total</b>		<b>300</b>	<b>100</b>

## Data Analysis Method

This study employed the SEM-PLS approach to analyse the data. The reliability and validity of the constructs were examined to assess the measurement and structural models. The bootstrapping procedure with 500 bootstrap re-sampling was applied to assess the structural model.

## RESULTS

### The Measurement Model Results

**Construct validity:** In this study, construct validity was applied to ensure that the constructs are reliable measures, that is, the items measure accurately what the study intends to measure. According to Hair et al. (2013), construct validity can be measured in two ways namely the convergent validity and discriminant validity. Convergent validity is achieved when factor loading of each item is greater than 0.70 and AVE exceeds 0.5 (Hair et al., 2018). The results of the convergent validity are presented at Table 4. Items SQ2, CT1, CT3 and CT5 have been removed due to lower factor loadings. As can be seen in Table 4, the convergent validity was achieved since all items have a factor loading greater than 0.70 and the AVE for each construct was greater than 0.5. The Fornell–Larcker criterion was used to establish the discriminant validity. As shown in table 5, discriminant validity is achieved since the square root of the AVE of each construct is higher than its correlations with other construct.

### Construct Reliability

Cronbach Alpha (CA) and Composite Reliability (CR) have been used to determine the construct reliability. Reliability is defined as the “*extent to which a measuring instrument is stable and consistent. The essence of reliability is repeatability. If an instrument is administered over again, will it yield the same results*” (Mark, 1996). Table 4 illustrates the (CA) and (CR) results. The (CA) ranges from 0.838 to 0.911 and the (CR) statistics range from 0.915 to 0.937. Hence, construct reliability is achieved since the reliability statistics exceed 0.70 (Hair et al., 2011).

	Items	Loadings	Cronbach's Alpha	Rho_A	Composite Reliability	AVE
Brand Image	B1	0.89	0.904	0.906	0.928	0.722
	B2	0.86				
	B3	0.87				
	B4	0.81				
	B5	0.83				
Price	P1	0.83	0.891	0.892	0.920	0.697
	P2	0.83				
	P3	0.85				
	P4	0.84				
	P5	0.83				
Service Quality	SQ1	0.88	0.884	0.888	0.916	0.685
	SQ3	0.84				
	SQ4	0.86				
	SQ5	0.82				
	SQ6	0.88				
Customer Satisfaction	CS1	0.90	0.911	0.911	0.937	0.789
	CS2	0.90				
	CS3	0.88				
	CS4	0.88				
Customer Trust	CT2	0.88	0.838	0.839	0.925	0.861
	CT3	0.89				
Customer Loyalty	CL1	0.85	0.875	0.876	0.915	0.728
	CL2	0.85				
	CL3	0.86				
	CL4	0.86				

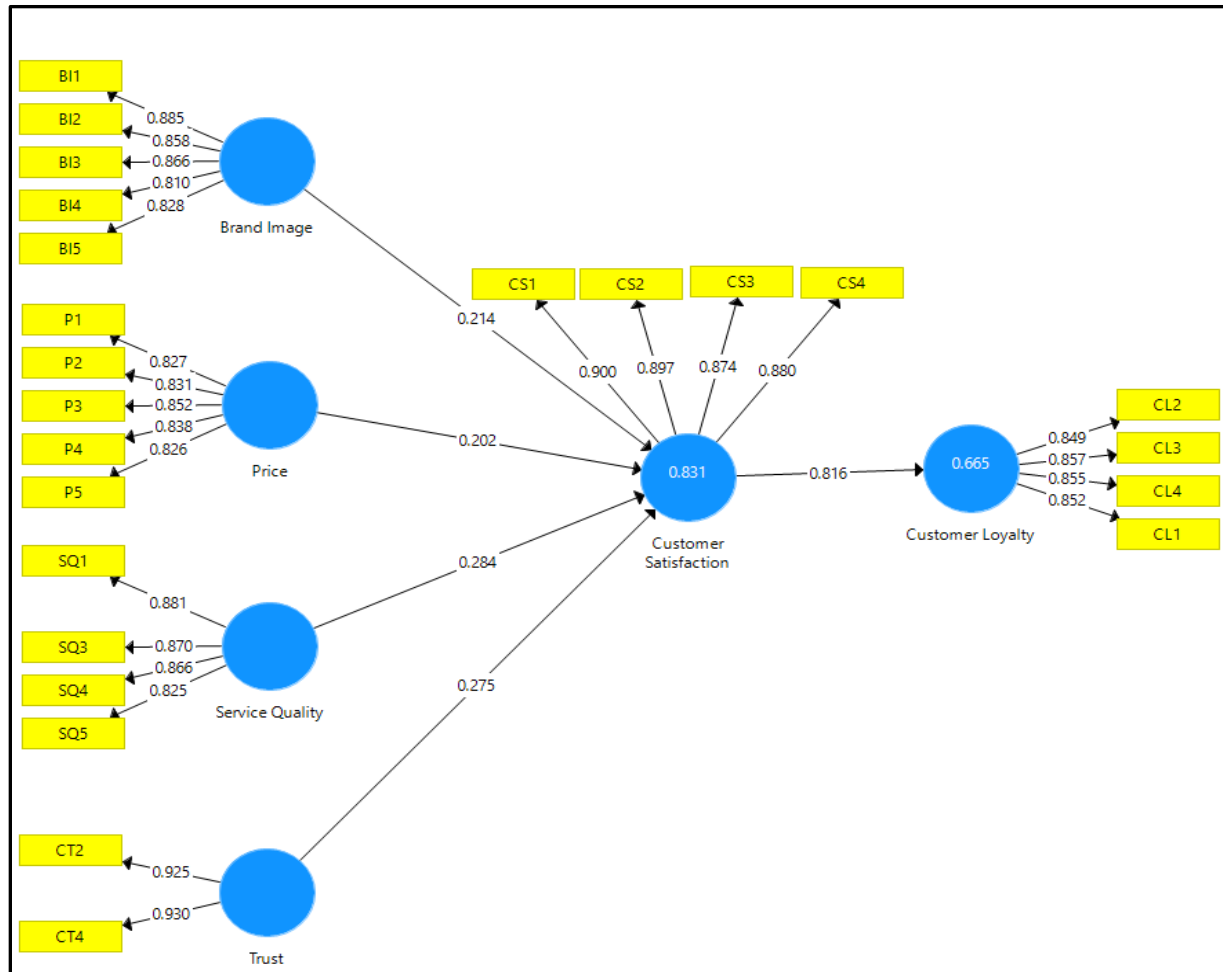
Note: SQ2, CT1, CT3 and CT5 have been removed due to lower factor loadings.

1. Item loadings > 0.5 indicates indicator loading.
2. All Average Variance Extracted (AVE) > 0.5 indicates convergent Reliability.
3. All Composite Reliability (CR) > 0.7 indicates internal consistency.
4. All Cronbach's Alpha (CA) > 0.7 indicates indicator reliability.

	Brand Image	Customer Loyalty	Customer Satisfaction	Price	Service Quality	Trust
Brand Image	<b>0.850</b>					
Customer Loyalty	0.815	<b>0.853</b>				
Customer Satisfaction	0.845	0.816	<b>0.888</b>			

Price	0.824	0.795	0.835	<b>0.835</b>		
Service Quality	0.837	0.775	0.864	0.827	<b>0.861</b>	
Trust	0.820	0.752	0.854	0.805	0.846	<b>0.928</b>

**The Structural Model**



**FIGURE 2  
THE STRUCTURAL MODEL**

The coefficient of determination, R<sup>2</sup>, is 0.665 for the Customer Loyalty endogenous latent variable. This means that “Customer Satisfaction” moderately explains 66.5% of the variance in Customer Loyalty. R<sup>2</sup> for “Customer satisfaction” is 0.83 which means that “Brand image”, “Price”, “Service Quality” and “Trust” altogether explains 83% of the variance in “Customer Satisfaction”. Moreover, “Service Quality” and “Trust” have the stronger effect on “Customer Satisfaction” compared to “Price” and “Brand Image”. The hypothesized path relationship between “Customer Satisfaction” and “Customer Loyalty” is significant (>0.1). The hypothesized path relationship between “Brand Image”, “Price”, “Service Quality” and “Trust”

and “Customer satisfaction is significant ( $>0.1$ ). It can, thus, be concluded that “*Brand Image*”, “*Price*”, “*Service Quality*” and “*Trust*” are significant predictors of “*Customer Satisfaction*”.

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics ( O/STDEV )</b>	<b>P Values</b>
H1: Brand Image -> Customer Satisfaction	0.214	0.212	0.06	3.604	0.000
H2: Price -> Customer Satisfaction	0.202	0.207	0.059	3.406	0.001
H3: Trust -> Customer Satisfaction	0.275	0.275	0.061	4.482	0.000
H4: Service Quality -> Customer Satisfaction	0.284	0.282	0.06	4.728	0.000
H5: Customer Satisfaction -> Customer Loyalty	0.816	0.816	0.022	37.447	0.000

### **Hypothesis 1: Brand image positively influence customer satisfaction**

The results revealed that brand image has a significant impact on customer satisfaction ( $\beta=0.214$ ,  $t=3.604$ ,  $p<0.05$ ). Hence H1 is supported Figure 2.

### **Hypothesis 2: Price influence the customer satisfaction**

The results revealed that price has a significant impact on customer satisfaction ( $\beta=0.202$ ,  $t=3.406$ ,  $p<0.01$ ). Hence H1 is supported.

### **Hypothesis 3: Customer trust positively influence customer satisfaction**

The results revealed that customer trust has a significant impact on customer satisfaction ( $\beta=0.275$ ,  $t=4.482$ ,  $p<0.05$ ). Hence H1 is supported.

### **Hypothesis 4: Service Quality positively influence customer satisfaction**

The results revealed that service quality has a significant impact on customer satisfaction ( $\beta=0.284$ ,  $t=4.728$ ,  $p<0.05$ ). Hence H1 is supported.

### **Hypothesis 5: Customer satisfaction positively influence customer loyalty**

The results revealed that customer satisfaction has a significant impact on customer loyalty ( $\beta=0.816$ ,  $t=37.447$ ,  $p<0.05$ ). Hence H1 is supported.

## **RECOMMENDATIONS AND MANAGERIAL IMPLICATIONS**

### **Theoretical and Practical Implications**

This study has provided several theoretical and practical insights to the academic community, policy makers of telecommunication industry and practitioners of mobile operating sector of small and developing island economies. The telecommunications sector represents a promising sector and there are forecasts for 2020-2030 that accentuates on several accelerating changes that this sector will experience, such as challenging uptake with new products and

services, increase in the percentage of mobile phone users and smart devices adoption in the near future. In the light of these strong assertions, the validated model for driving customer loyalty in the telecommunications sector represents a novel approach of understanding customer loyalty from both theoretical and practical perspective.

### **Theoretical Implications**

This research is providing an original theoretical lens to understand the concept of customer loyalty by drawing from the Theory of Reasoned Action (TRA) that has been widely used to predict consumer behavior across diverse sectors. The influence of the independent factors such as brand image, price, service quality and trust have been modelled to assess their predictive power on customer satisfaction and loyalty drivers during the exchange process between the telecommunication provider and telecommunication users/customers. This theoretical model, adapted from the TRA serves as an original theoretical map to guide researchers and academic scholars for ongoing studies in the arena of customer loyalty and customer satisfaction. This research with the validated model has contributed to the marketing and services management literature by appraising the independent constructs and its impact on customer satisfaction and loyalty by using the TRA in a marketing context. Therefore, this paper has extended the theoretical understanding of customer loyalty ( $R^2$  0.665) and customer satisfaction ( $R^2$  0.831) that have been immensely researched during the past decades by supplementing the body of knowledge with a new theoretical model of understanding customer loyalty as there will be sustained research interests in the field of customer loyalty in the forthcoming years. Moreover, the validated model through PLS-SEM has ascertained that service quality ( $\beta=0.284$ ,  $t=4.728$ ,  $p<0.05$ ) and consumer trust ( $\beta=0.275$ ,  $t=4.482$ ,  $p<0.05$ ) are important constructs of customer satisfaction for enhancing customer loyalty in telecommunications contexts and service quality and consumer trust have been theoretically validated in this original model.

This research has also enabled to integrate robust constructs that have been empirically validated through PLS-SEM in the existing body of knowledge pertaining to services management, marketing and branding literature. These theoretically validated constructs of the model as shown in Tables 5 and 6 such as brand image, customer trust, service quality, price, customer satisfaction and customer loyalty with their respective indicators are robust constructs with excellent validity and reliability values for future model testing and validation that the academic scholars can extrapolate from in order to further advance the theoretical understanding of customer loyalty. Drawing from the TRA, this research has also provided a better theoretical clarity to appraise the positive consequence of customer satisfaction on customer loyalty ( $\beta=0.816$ ,  $t=37.447$ ,  $p<0.05$ ), based on the series of exchange between the telecommunication users and the telecommunication providers.

### **Practical Implications**

This research has also provided a clear practical guideline on the most predictive factors impacting on customer satisfaction. In fact, service quality and consumer trust have proved to be the most influential factors impacting upon customer satisfaction in mobile operating contexts. This theoretical model serves as a roadmap to enhance customer loyalty in telecommunication industry. The validated theoretical model is also offering practical insights that policy makers of

the telecommunication operators and mobile service providers will have to consider in order to promote better customer satisfaction and drive customer loyalty in this competitive sector.

It is important for the telecommunication industry and the players in the mobile operators to excel in their service quality attributes by focusing on some key service quality dimensions. There will be a major uptake of mobile operators in the telecommunication industry across the world following the upheavals caused by the recent pandemic. Therefore, this research findings are of great essence to multi-stakeholders comprising of the Ministry of information technology, mobile payment stakeholders and banking stakeholders among others. It is further recommended that telecommunications providers launch new products and services on a regular basis with special attention on safety aspects during the pandemic crisis (Loading 0.823). Specialized courses in mobile applications can be introduced to fulfil the tailor-made needs of each customer segment in Mauritius, given that Mauritius is paving its way towards an ageing population and at the same time, the emerging generation is very mobile and technologically driven (Loading 0.823). Several customized strategies will have to be adopted by mobile and telecommunication operators to promote customer satisfaction and sustain customer loyalty in small island developing states such as Mauritius. In this respect, the employees of the telecommunication providers should also understand the specific needs and granularity of their segmented customers in order to provide them with appealing and good quality products and services as promised by the telecommunication providers (Loading 0.881). As far as complaint handling initiatives as an important attribute for service quality is concerned (Loading 0.825), telecommunication providers should coach their employees to listen attentively to customer complaints and provide the right solutions to resolve customer complaints. It is, thus, suggested that regular training by experts in complaint management are organized to ensure that complaints are well addressed in the context of telecommunication sector to promote service quality to further enhance customer satisfaction and drive loyalty among telecommunication users.

In addition, trust reinforcement strategies such as telecommunication providers acting with good intentions (Loading 0.925) and catering for customer's best interests (Loading 0.930) should be maintained in the marketing communication strategies especially through social media marketing since customers are mainly connected on social media sites. Therefore, telecommunications provider should further connect with their customers on social media sites to further reinforce trust as a long-term orientation by providing genuine testimonials about the good intentions of the telecommunications providers from customers in a compassionate manner. Policy makers of telecommunications sector should also optimize on emotionally driven communication campaigns such as showcasing the high-level telecommunications policy decision makers by short inspiring video to illuminate several stakeholders that catering for the best interest of customers is naturally embedded in the policies of the telecommunications service providers.

The findings of this study are very useful to strategic policy makers of small island developing states where mobile operators are expanding their business. In the light of COVID-19, the government is emphasizing on the adoption of mobile applications and mobile services to avoid greater influx of persons in the country in order to safeguard safety standards. Hence, the findings pertaining to customer trust for ensuring customer satisfaction in this particular context is very valuable. The policy makers from the telecommunication industry, mobile and information technology domain, together with experts from Ministry of health and quality of life can have constructive consultations and working sessions to reflect on trust enhancement strategies that both high level stakeholders can establish to promote customer trust in today's uncertain pandemic situation.



## CONCLUSION AND LIMITATIONS

Based on the TRA and extant literature, this study has empirically tested the antecedents of customer satisfaction and loyalty in the telecommunications industry in Mauritius. The focus of the study was to examine the impact of the four borrowed constructs namely Brand Image, Price, Service Quality, and Consumers' Trust on consumer loyalty of Mauritian consumers by using the PLS-SEM 3 software. The empirical findings have demonstrated that the four constructs are important constructs of customer satisfaction and loyalty in the Mauritian telecommunications industry.

However, as with all the studies, this study also suffers from some limitations which may narrow down the interpretation of the findings and conclusions. The first limitation of the study pertains to the sample size which can affect the generalization of the findings. It is, therefore, recommended that future studies use a larger sample size so that accurate and precise conclusions can be drawn. Since this study adopted a deductive approach such that the hypothesis formulated are derived from existing literature, the authors recognize that certain issues inherent to the local context might not have been considered in the conceptual framework. Hence, from a methodological point of view, it recommended that future studies adopt a mixed method approach (qual-quant) to capture the latent factors that could have been omitted in this study. Moreover, future studies can apply Multi Group Analysis (MGA) to assess if there are significant differences among several categories of consumers (based on the age, gender and occupation) in terms of the effect of the four constructs on customer satisfaction and customer loyalty. Furthermore, to validate the findings of this study, similar studies can be carried out in other countries that are comparable to the Mauritian context. Finally, the two most predictive constructs for improving customer satisfaction and customer loyalty namely service quality and consumer trust can be further tested theoretically through other robust multivariate statistical techniques such as CB-SEM in future studies to substantiate the finding of this study as there is scarce literature pertaining to the attributes for improving loyalty among telecommunication users in a SIDS context from a social exchange perspective. Nevertheless, it is hoped that this study has shed light on the most predictive factors impacting on customer satisfaction and customer loyalty and that it has laid the foundation for future studies to enhance customer loyalty in telecommunication industry.

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