

Customer satisfaction variable analysis for broadband services in Malaysia: The impact of Pricing, quality, branding and customer relationship management

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Abstract— The increase in penetration of broadband services around the country has brought significant changes to the infrastructure as well as the ability of consumers to interact with various businesses in Malaysia. The government has been pushing increase penetration as a way of making some of the social developmental metrics which are needed for developed country. This policy has been largely influential in pushing forward the agenda of reduce costs for higher speeds in the country, which is now leading to an increase of competition when it comes to service providers. The government is slowly opening the landscape for new bidders which is changing the way marketing takes place in the industry and eventually how the customer journey is impacted. Given the complexity of this new customer journey, it is likely that customer satisfaction is now being derived from many other variables other than those which were thought to be important. Hence, it is expected that in the future companies will start looking at consumer satisfaction in a much more prominent way and start incorporating different measures that allow them to be more transparent. There are many benefits for companies with can satisfy the consumer's including the ability to upsell different services as well as secure long-term contracts with them so that revenue is assured for the future. This is important for companies that are looking to make investments in increasing infrastructure moving forward.

Keywords— Customer satisfaction, customer relationship, variable analysis

1 INTRODUCTION

THE increase in penetration of broadband services around the country has brought significant changes to the infrastructure as well as the ability of consumers to interact with various businesses in Malaysia (Chik & Ismail, 2013). The government has been pushing increase penetration as a way of making some of the social developmental metrics which are needed for developed country. This policy has been largely influential in pushing forward the agenda of reduce costs for higher speeds in the country, which is now leading to an increase of competition when it comes to service providers. The government is slowly opening the landscape for new bidders which is changing the way marketing takes place in the industry and eventually how the customer journey is impacted. Given the complexity of this new customer journey, it is likely that customer satisfaction is now being derived from many other variables other than those which were thought to be important (Getachew, 2018). For example, according to some research, one of the key factors for satisfaction for broadband services has always been price and customer service. However, with more companies looking to use branding as a way to circumvent some of these issues, there has to be better analysis done on what it is that makes the consumer happy and satisfied rather than pushing forward price discounts which has been the primary method of dealing with these issues (Bianco, et al., 2009).

On top of that, broadband services are also facing higher com-

plaint levels in Malaysia. These service companies have been accused of providing less than the stated speeds have also been chided for providing poor customer support for many issues (Almotairi & Almeshal, 2015). This is forcing companies to become more customer transparent and has allowed large companies such as TM to invest in its customer service infrastructure releasing new features such as the ability of chatting live with customer service representatives. This is increasing the complexity of the user journey for brands which is making them more aware of the importance of consumer satisfaction (Chik & Ismail, 2013). Hence, it is expected that in the future companies will start looking at consumer satisfaction in a much more prominent way and start incorporating different measures that allow them to be more transparent.

There are several benefits which have been recorded in the literature for companies which practice this mindset (Chatzoglou & Gournas, 2014). Broadband services operate in an extremely fast-paced environment and given the digital nature can conduct surveys and collect data which other companies won't have. This gives them unprecedented insight into the consumer which gives them higher chances of satisfying them (Yang, et al., 2009). There are many benefits for companies with can satisfy the consumer's including the ability to upsell different services as well as secure long-term contracts with them so that revenue is assured for the future. This is important for companies that are looking to make investments

in increasing infrastructure moving forward.

2 PROBLEM STATEMENT

One of the reasons why customer satisfaction has been decreasing in Malaysia has to do with the lower levels of customer satisfaction levels which are being experienced (Zhang, et al., 2010). There are many reasons through which customers are feeling dissatisfied with the services that they are being provided. For example, many customers feel that the broadband prices in Malaysia are some of the highest in the region which makes using the Internet at high speeds extremely uncompetitive (Chik & Ismail, 2013). This has been noted by the government as well who is now working to make sure that future price decreases are in the offering and that consumers can get a better deal as those seen in neighbouring countries. Another important reason for customer satisfaction going down as the number of disruptions which are taking place along the network. There are many kinds of services which are disrupted as part of this maintenance which then creates disruptions in all parts of the city causing problems for consumers. Even though some of these disruptions can be scheduled, many of these are not scheduled but adds further burden on the consumer and makes them unhappier with the service (Yang, et al., 2009).

Another problem which companies are experiencing is at consumer satisfaction is being reduced due to the speed of service which is now being required by consumers (Ayele, 2014). In the past, consumers were willing to wait for phone calls and speak with customer representatives to solve their problems. Now consumers require instant answers not only through normal means but also through social media (Bianco, et al., 2009). The number of consumer points as increased making it more difficult for companies to try to understand in which part of the process they should be investing the resources in. Hence the problem of consumer satisfaction is both an external and internal problem for most companies (Yaacob, 2011). It is external because consumers are changing the way they interact with the brand which leads to dissonance. At the same time it is internal as well because the company needs to make sure that the service it is providing lives up to the brand name and also lives up to the brand promise which is an important part of why consumers tie themselves in with long contracts in the first place (Xie & Pan, 2010). It is expected that by managing consumer satisfaction levels, the company can improve its profitability and improve the return rate for consumers. An important metric within the industry is how many individuals have shifted from one service to another. Individuals will shift for reasons of dissatisfaction and many companies are now offering discounts to consumers that shift other brands (Wang & Chen, 2011). Brands cannot allow this movement to take place as it represents an extremely vital loss revenue opportunity which can create problems in future stability of the revenue which is wanting to be produced. In this way, the efforts of the company in improving customer satisfaction are directly related to the profitability was the company will experience as part of that process as well (Suryaprakash & Pawar, 2017).

3 RESEARCH OBJECTIVES

The research objectives of the current study are largely to understand what some of the requirements for customer satisfaction within the broadband industry are. Customer satisfaction within a fast-moving technological industry requires a thorough analysis of some of the basic factors which are present in all companies. One of the unique aspects around studying the broadband services industry is that it is not highly fragmented as other industries in Malaysia. This provides a much tighter set of data which can be analysed and represents the ease of analysis. This is achieved by looking at the larger companies and then assuming that most of the other companies are also trying to either emulate the same style or looking to transform themselves into the same manner. The research objectives are also important because it gives a basis to the research question which will be constructed later. Research questions are always based on the research objectives and must explore some of the bigger ideas which are being explored as part of the overall objectives.

Based on this, the following can be the most important research objectives which are being followed:

Exploring the impact of price, quality of service, branding and customer relationship management on customer satisfaction in the broadband services industry in Malaysia.

Understanding the relationship between the variables to provide guidance to industry and practitioners on the resource allocation for optimum customer satisfaction

To give insights into how these variables can impact customer satisfaction within the context of Malaysia

all these objectives are important and central to the study and require specific research questions, a format which will follow almost 2 questions per objective. This is to give better insight into the dimensions which are needed to be studied for this relationship analysis.

4 RESEARCH QUESTIONS

The research questions are as follows:

What is the impact of pricing on the customer satisfaction levels within broadband service providers in Malaysia?

What is the impact of quality of service on the customer satisfaction levels within broadband service providers in Malaysia?

What is the impact of branding on the customer satisfaction levels within broadband service providers in Malaysia?

What is the impact of CRM on the customer satisfaction levels within broadband service providers in Malaysia?

5 LITERATURE REVIEW

5.1 Price

In the initial phase of broadband growth, there was evidence to suggest that price is directly related to the customer satisfaction as lower deals were becoming normal in the industry (Ayele, 2014). Many new Internet providers are springing up and due to the lack of any barriers to entry, it was easy for any company to get into the game and start marketing to specific markets around the country. This was especially true in the United States which

led to an overall decrease in the price which is being put on the service. Price then became an indicator of satisfaction purely because individuals needs for data was growing and to get it at the lowest price brought them the highest level of satisfaction (Devi, 2010).

However, recent research is of the opinion that price does not have a direct impact on satisfaction and broadband services (Bianco, et al., 2009). This was done in the context of highly developed nations such as those in Western Europe and focused on the ability of the organization to provide consistency of services rather than the cheapest price. Some studies that conclude that price was still important, however other factors such as branding were also seen to gain prominence. This was especially true for the millennial's are the younger generation that are now interacting with the same services and are becoming an integral force of the future consumption.

Price was also seen to change the way consumer behaviour takes place when purchasing the services (Xie & Pan, 2010). This is consistent with other literature as well. For example, if deep enough discounts are given, and some discounts are linked to the previous status of the consumer, it leads to an added incentive to switch services. Price does have an impact; however, it leads to a state of price war between companies which is not healthy for the industry. Price wars are seen to be beneficial for consumers, however for companies it represents a deadweight loss to society which needs to be compensated in other means (Yang, et al., 2014). It is far more beneficial for companies to work together and develop a pricing mechanism that is suitable for different business requirements. The market for broadband services is seen to be regulated in countries like Malaysia as well which also has an impact on the pricing which can be offered to the consumer. However, others have concluded that within the Malaysian context price is not a mechanism of the quality but rather a protectionist measure for the public companies involved in providing the same services.

5.2 Quality

Quality of service is one of the more important aspects and consistent in various studies as well. Quality has a differentiated meaning within the broadband context (Devi, 2010). The quality in broadband refers to the ability of the Internet service provider to give the maximum amount of bandwidth which has been allotted to the user. Quality also refers to the consistency of the network and the ability of the network to have more than 99% uptime. Quality is also a measure of the upload and download speeds that are user experiences. It is the sum of these factors which develops the quality angle in this research (Chik & Ismail, 2013).

The impact of quality is quite evident in demand for that product. Differentiated markets seem to appreciate these benefits considerably more. In a study of gamers, it was concluded that the quality of the connection as well as the fidelity of it were the most important factors (Wang & Chen, 2011). Most consumers believed if the company was able to provide the full bandwidth which had been advertised, it would lead to much higher quality ratings as well as customer satisfaction. One interesting perspective within this is how most individuals were not willing to pay more for quality. Most individuals felt that the current pricing

was already over, leading them to conclude that until prices fall in the market there is no need to pay for more (Wong, 2013). The phenomenon of keeping maximum uptime is also a regulatory requirement by the government. The government forces Internet service providers to give minimum downtimes and disrupt all the mechanisms which rely on it economically.

5.3 Brand Impact

Branding is also extremely important according to literature. Branding is understood in marketing is the characteristics of the product or service which allows it to take on a different meaning in the eyes of the consumer (Rajeswari, et al., 2017). A large part of branding is brand perception, which is how consumers perceive the brand based on the marketing mix which is been adopted. Luxury brands are in effect seen to impact consumer slightly differently than mass-market brands.

Branding impacts the consumer journey because it impacts the stages where the information is being gathered (Rajeswari, et al., 2014). The information gathering stage in the process is important because it shapes the perceptions of the consumer. Companies use specific branding elements to reach out to these consumers and to convince them about certain aspects which are being targeted. This creates the marketing impact which leads consumers towards using brands as the entry point towards consuming the service.

Branding has been adopted by many leading broadband services across the region. Just like the telecommunication sector, the broadband sector is also looking towards appealing more to a brand presence as it allows them to create differentiated services while keeping price point stable (Lartey, 2015). Branding also creates important barriers to exits which prevents consumer from leaving very easily. All of this is very important in the face of regulation which gives consumers extremely easy means to switch providers without incurring any penalties. Companies understand the use of branding and use it to keep consumers within the ecosystem as best as possible.

5.4 Customer Relationship management (CRM)

Customer relationship management has always been important for customer satisfaction. This has been proven time and time again in literature which is not even related to the broadband sector. All sectors regardless of their industry have benefited from improved levels of customer relationship which have allowed them to not only improve the bottom line but also create happier customers that are able to contribute to the company for over a longer time (Rajan, et al., 2016). These consumers are extremely important because they form a core target market which each company needs to keep appealing to and grow.

The direct linkage between customer relationship management and customer satisfaction is that customers feel that the company is listening to them and acting on their advice. This is a psychological connection which the consumer creates with the company and it is important for the company to fulfil as it is part of brand promise (Suradi, et al., 2008). What happens after the consumption takes place is also important and given that there are longer-term contracts in place with broadband companies, there is a direct relationship with continued satisfaction and the ability to handle consumers effectively. The broadband industry

in general understands this and applies it in various ways. For example, companies that have specific clients that spend more on a monthly basis get access to different deals than those that don't. This is one way of increasing satisfaction as it makes the consumer feel happier about the purchase and the fact that the consumer is being taken care of. This is another psychological connection with the consumer creates with the company (Getachew, 2018).

All this is beneficial because it creates trust with the brand. Customer relationship management also requires the company to have an organized method of dealing with inquiries. This can include a combination of off-line and online elements with the end goal of answering all inquiries and rectifying all mistakes. It is essential that the company keep listening to this feedback as some of the most invaluable feedback comes from clients that may not be happy with the services.

6 METHODOLOGY

The methodology will focus on describing how the sampling methods were developed and what were some of the reasons behind the philosophical direction which was chosen for the study.

From an objective point of view the study is a quantitative analysis with the help of statistical analysis to understand the relationship between the variables. This is one of the more robust frameworks when it comes to looking at analysis and the relationship between variables. To carry out this analysis, the tool of SPSS was used which is one of the leading tools to determine the very statistical analysis which is needed to conduct the analysis on the relationship between the variables. There was a positivist framework adopted to the study as the goal was to look at the numerics in detail and to understand its impact on the respondents.

As part of this analysis, there was mostly deductive reasoning used (Giovanis, et al., 2014). Deductive reasoning is when a large sample size is analysed to understand generalization which is the opposite of inductive reasoning. In inductive reasoning framework, the focus is on using a smaller sample size and then drawing generalizations based on that.

The sample size which was used for this study was around 395 candidates. This was based on the total population size of more than 1 million as many individuals were eligible for the study which made the overall population for the study quite large. 395 candidates or respondents are adequate when trying to understand larger patterns of behavior.

The main demographics that were chosen for this study were individuals between the ages of 18 to 40 that were regular users of broadband services in Malaysia (Satria, et al., 2015). The users had experience in many different services in Malaysia which made them suitable for this kind of study. When it came to the type of sampling methods which were used to find these individuals, there was a convenience sampling method used in which the researchers try to find individuals that they were familiar with and send them the questionnaires. Discussion on the questionnaire form the next important part of the methodology.

The questionnaires that were used to understand some of these relationships was based on existing literature and was bro-

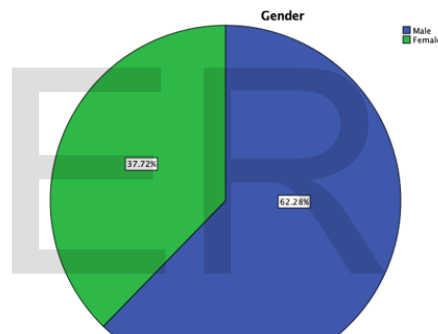
ken up into three main parts (Satish, 2014). The first part was focused on collecting demographic data from the respondents. This was analysed to understand how different mindsets were influencing the answers which are given. At the same time, the next two sections focused on both the independent variables as well as the dependent variables as these answers were needed as well.

The questionnaires were first put through a pilot test in which 20 individuals were chosen to see if the questionnaire was able to answer all of what it is asking. Once the changes were made to the pilot questionnaire, this was converted into the full questionnaire which was then sent all the candidates.

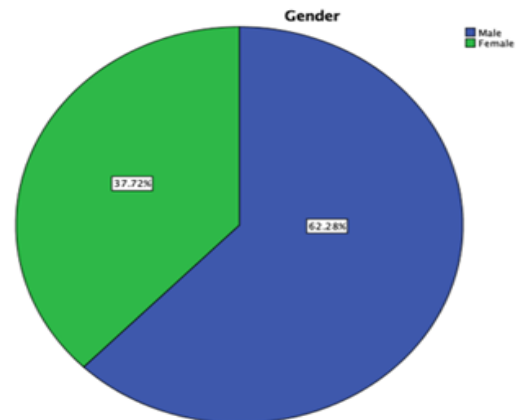
7 DATA ANALYSIS

The first important data which was analysed is that of the de-

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	246	62.3	62.3	62.3
	Female	149	37.7	37.7	100.0
	Total	395	100.0	100.0	



		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	246	62.3	62.3	62.3
	Female	149	37.7	37.7	100.0
	Total	395	100.0	100.0	



s many other represents the total of 395 re- l of them suc- sted of almost also represent- r answers and sfully. hich is seen in s a slight slant t comes to the tative. This is ing to the ser-. It also repre- roadband ser- other reasons ie of these dif-

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that indicates the proportion of variance in your variables that might be caused by underlying factors. High values (close to 1.0) generally indicate that a factor analysis may be useful with your data. It is important that from an exploring tree perspective, the values are high enough so that the individual factors which have been chosen for analysis are seen to have a direct impact on the dependent variable. If at this stage the reliability of these independent variables is low, it leads to a need to really look at the variables and try to look at some other variables that may be better at explaining the relationship.

From the results below, there is a high enough relationship from an independent variable impacting the dependent variable. A close to 78% explanation is seen which indicates that most of the variables have a high relevance to the dependent variable. This was important to carry out as all other tests will depend on the results of this. If the test indicated an extremely low figure than the whole study would have to be re-looked at.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.775
Bartlett's Test Approx. Chi-Square	18535.316
df	300
Sig.	.000

The next most important step is to carry out the regression analysis. The regression analysis is the most important tool when it comes to describing the relationship and the strength of that relationship between the variables. The analysis will help reveal many of the important indicators which have to be looked at and to decide which of the variables is most important from an impact perspective. It does that not only by providing a numerical strength of that relationship but also providing a statistical significance which needs to be below the value of 0.05. This is the P value below which indicates that the model is successful in explaining the relationship.

An examination of the results revealed that all the variables were important. The relationship metric in the multiple regression was close to 100% which represents all these factors playing an important part in consumer satisfaction. This is an extremely strong result which helps to indicate the importance of applying these concepts within a consumer satisfaction perspective. There are other types of tests which were also carried out such as reliability tests. These tests also shown that the independent variables and its dimensions were important enough and did not have any issues of multicollinearity which is important as well.

Overall the results were extremely successful. It essentially indicates that the variables chosen to have a direct impact and that all the hypothesis of the variables having a positive relationship can be concluded. What is not difficult to estimate given the high level of relationship is which of these variables has the most impact when it comes to determining consumer satisfaction. The results were very close to each other which indicates that achieving consumer satisfaction is not only

about these variables but is also about other approximate variables which must be considered.

	Mean	Std. Deviation	N
CSA	1.9418	.93665	395
PIS	1.9215	1.06700	395
PQ	2.2405	1.38717	395
BA	2.1139	1.15968	395
CSE	1.8810	1.00432	395

Model	Variables Entered	Variables Removed	Method
1	CSE, PIS, BA, PQ ^a		Enter

a. Dependent Variable: CSA
b. All requested variables entered.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.990 ^a	.980	.980	.13276

a. Predictors: (Constant), CSE, PIS, PQ, BA

8 DISCUSSION

The results of the study underlined the importance of price, quality, branding and customer relationship management within the context of broadband companies in Malaysia. All these characteristics are seen to be extremely influential and customer satisfaction, and as is understood by customer service theory this leads to long-term consumers that are more profitable. Hence in this way the study connects with what is known already in the wider literature (Chatzoglou & Gournas, 2014).

What was not so visible in the Malaysian context is the ability of brands to play a part in determining consumer satisfaction (Vanara, 2016). This can be explained in part due to the high levels of branding which is taking place between competitors. As described before, some of the largest competitors are now competing exclusively on branding to reduce the price wars which exist. With branding becoming almost as important in pricing, it is creating a differentiated consumer journey which companies would need to understand and leverage properly. Part of the answers are located within the digital space, while most of it is still located within off-line spaces through which the companies must connect with consumers (Laeheem, 2012). Another important finding of the study is that customer relationship management is a key factor through which companies can improve themselves. The feedback which is given through these mechanisms is important as it gives new ideas to management to tackle existing problems (Satria, et al., 2015). Companies can do a better job at leveraging this data and should create communication networks that make it easier for consumers to leave this feedback. There is evidence to suggest that many companies are reluctant when it comes to creating this communication networks as it cuts through existing organizational structures and processes that are set up. How-

ever, companies will need to overcome this if they wish to be successful in its implementation.

Broadband companies are then required to improve all these four aspects (Bianco, et al., 2009). They are required to do this because their future profitability depends entirely on their ability to satisfy the consumer. The high level of complaints which exist need to be reversed for broadband companies to start growing their market share and their consumer satisfaction. Everything would need to go hand in hand for the future landscape to be profitable for all commercial companies involved.

9 LIMITATIONS OF THE STUDY

There are several limitations of this current study which must be highlighted at this point. The first limitation is that the study uses only for variables to understand consumer satisfaction which can be considered limiting factor. The variables were selected based on their veracity and their ability to explain consumer satisfaction in the industry, however it does not represent the full picture. There are other important variables as well such as consumer perception about services which can play an equally important part in impacting the overall outcome. The fact that the current study did not consider these variables due to its own constraints means it's one of the limiting factors which have to be considered by future researchers.

Another major time constraint was that of time. The scope of the study was brought and required a look at many different variables in the data collection period was also an extensive. Given the fact that there was a limited time. Available to collect all this data there were constraints faced in reducing the scope of the study. The scope of the study could have been improved by having more time to collect better data from individuals that are not based on convenience sampling. Convenience sampling is not the primary method which would be used in quantitative studies as a probability-based random sampling is a much better indicator.

The last important limitation of the study is that it only provides an overview of the interrelationship between the variables and describe some of its impacts but does not go as far as to try to put that within the context of organizations. In other words, the academic contribution of the study is much larger than the actual practical contribution. This is not troubling for researchers as the goal of any academic report is to help improve the knowledge which is available in the industry with the whole that companies can try to apply that knowledge within their own perspective and bring it to life.

At the same time, all these limitations are not purely for this study alone. Quantitative studies which are looking at trying to understand the impact of various variables on the dependent variables suffer from some of the same limitation which then puts the limitation of this study within context. These can be overcome and some of these recommendations will be looked at in the next section.

10 RECOMMENDATIONS

The recommendations which are given focus on overcoming some of the shortcomings of the current study. The first recommendation is that researchers should try to use a mixed mode methodology to improve their findings. A mixed mode methodology requires that qualitative elements are also included within the research which gives a much broader context of what is being discussed. Statistical analysis is carried out; however, it is augmented by some of the context which is provided through the open-ended questions which are asked in the interviews. These questions become the basis of performing a deeper analysis of what the numbers are saying as well. It also gives the opportunity to the researcher to try to come back to these questions when the data has been analysed as well (Satish, 2014).

Another recommendation would be that there is a longer time period devoted to conducting this research. A longer time favours and provide many different benefits. Firstly, it can allow better sample selection as the current sample was based on convenience (Howard, et al., 2015). A random sampling also allows the researcher to get much stronger data and better findings. However, next time there should be better use of online resources when sharing the questionnaires which were given. In the current study, there was a much bigger reliance on a paper-based questionnaire which limits the ability of it being shared to many different people.

Lastly, future studies should try to improve the number of independent variables which are being studied. The current study only had four variables which can be either increase in the future by other researchers or can remain roughly the same with inclusion of moderating and mediating factors to make the analysis much more complex (Jusoh, et al., 2012). There should also be greater focus on trying to incorporate other factors which are not from the industry to see how well they can explain customer satisfaction in the industry. There should also be specific focus on branding as this is playing a part in disrupting many of the connections which exist between the brand and the consumer in both the short and long run.

It is also recommended that future researchers try to modify the dependent variable as well. The dependent variable can have further dimensions added to it to make it more reliable. These dimensions can be taken from existing literature on either the industry or outside of it.

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