

Identifying Key Selection Factors of Mobile Network Operator and Analysing Their Importance Versus Performance from SME Customers Perspective

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ABSTRACT

The primary objective of this empirical study is to identify the key factors that influence the selection of mobile telecommunications service provider/Mobile Network Operator (MNO) and assess the perceived levels of importance and performance using Importance Performance Matrix proposed by Martilla and James, (1977) from the perspective of SME customers. The survey instrument which was designed and developed after an exhaustive literature review coupled with one focus group discussions and fourteen in-depth interviews was administered through field survey and e-mail to collect the primary data from SME subscribers of leading MNOs in the west zone of Tamilnadu. The Principal Component Analysis (PCA) provided eleven critical factors namely: network service, billing system, service encounter, technology, value-added service, convenience, reputation, brand image, tariff plan, word-of-mouth and switching cost. The importance-performance analysis highlights the 'keep up the good work' factors and 'concentrate here' factors that demand a reallocation of resources and guide the MNOs to formulate competitive strategies for customer acquisition and retention.

Keywords: Mobile network operator, selection factors, importance-performance analysis, switching.

INTRODUCTION:

In the highly competitive, complex and customer-oriented Indian mobile telecommunications service market, understanding small and large business customers' choice behaviour is essential for Mobile Network Operators (MNOs) that want to compete effectively, whether they are in the manufacturing or service sector. Small and Medium-sized Enterprises (SME) not only represent a viable market segment but that their mobile telecommunications service needs are also different. In service marketing selecting the right service provider who can match the requirement of its customers is a very important and challenging issue because of the characteristics of service. MNOs must explore such information and understand the various important factors that play a significant role in customers' selection process and determine appropriate strategies to effectively match the expectations of quality of service performance to attract new customers and to retain existing customers satisfied and loyal.

This study is intended to identify and assess the perceived level of importance and performance of various critical factors that influence the selection of mobile telecommunications service provider/Mobile Network Operator (MNO) from SMEs' perspective using Importance-Performance Analysis (IPA) developed by Martilla and James, (1977). IPA in general pursues understanding the role of the key selection attributes in a purchase decision. Performance is then measured using the same set of attributes so that importance and performance can be directly compared within the same attributes via the IPA plot or grid (Oh, 2001). This is an effective managerial tool which allows through a representation on a Cartesian coordinate system identifies the critical

factors where a firm should focus, reduce or maintain their efforts and also evaluate the critical factors where the largest deviations occur between what is important and what is delivered to the client (Ferreira & Fernandes, 2015; Wong, Hideki, & George, 2011).

Mobile Telecommunication Market:

India is currently the world's second-largest telecommunications market with wireless subscribers of 1,170.18 million by end of March 2017 (Telecom Regulatory Authority of India [TRAI], 2018) and has registered strong growth in the past decade and a half. The country is the fourth largest app economy in the world. According to recent data from TRAI, by the end of December 2017 (BusinessToday, 2018) the Indian wireless subscriber market share is dominated with a prepaid segment (95.61%) whereas the postpaid user base stood at 4.39% of total 1149.81 million subscribers. Post-paid subscribers are smaller in number but they contribute significantly to the telcos' revenues. In the quarter ending December 2017, the post-paid subscribers paid, on an average, Rs.348, which is 5.19 times the average monthly recharge amount of the prepaid users (Rs.67). As the mobile telecommunication businesses get more complex, the MNOs started looking into enterprise solutions like healthcare services, cloud services, energy management, analytics and Internet of Things. Selling solutions to SMEs and large business customers will help MNOs improve margins and increase customers connect. Therefore, it becomes imperative for MNOs to understand the critical selection factors which influence the decision of selecting an MNO by SMEs and large business customers.

Who is SME?:

A review of the literature indicates that a consensus does not exist as to what constitutes an SME, in this sense it is critical to specify how the current study defines the term. In India Section 7 of the Micro, Small and Medium Enterprises Development (MSMED) Act, 2006 (Press Information Bureau, Government of India, Ministry of Micro, Small & Medium Enterprises, 2018) define units producing goods and rendering services in terms of annual turnover as follows: A micro enterprise will be defined as a unit where the annual turnover does not exceed five crore rupees; A small enterprise will be defined as a unit where the annual turnover is more than five crore rupees but does not exceed Rs.75 crore; A medium enterprise will be defined as a unit where the annual turnover is more than seventy five crore rupees but does not exceed Rs.250 crore. For the purposes of this study, Small-to-Medium-sized-Enterprise is defined as non-subsidiary independent firms of proprietorship and partnership firms that employ fewer than two hundred full-time employees or their part-time equivalent and does less than Rs.250 crore annual turnover. Individual proprietorship firm is an unincorporated business owned by an individual who pays personal income tax on profits and is personally responsible for any liabilities. Partnership firm is an unincorporated business owned by two or more persons having a shared financial interest in the business.

Importance-Performance Analysis (IPA):

The Importance-performance analysis (IPA) developed by Martilla & James (1977) is considered as an expectation-disconfirmation model that models customer satisfaction as a function of importance (or, alternatively, expectations) and performance of the different product or service attributes (Oh, 2001; Martilla & James, 1977). IPA has become a popular managerial tool and its application has been extended to various fields including tourism, food services, education, healthcare, banking, public administration, e-business, and information technologies (refer: Sever, 2015). By identifying the most crucial attributes, i.e. the strengths and weaknesses, it prioritizes management actions to suggest the optimal allocation of limited resources that should improve and sustain customer satisfaction.

As shown in Figure-1, IPA generates four different suggestions based on importance-performance measures. This matrix classifies attributes into four categories or quadrants and provides an attractive snapshot about the customers' perceived importance of various attributes and how well the company perform in meeting customers' expectation and offers guidelines to set the priorities in allocating limited resources.

Figure 1: IPA Grid

High Importance Low	Quadrant II 'Concentrate Here'	Quadrant I 'Keep Up the Good Work'
	Quadrant III 'Low Priority'	Quadrant IV 'Possible Overkill'
	Low	High

Source: Chu & Choi (2000); Sever, (2015).

Quadrant I: 'keep up the good work'. The attributes are perceived to be very important to customers' purchase decision and at the same time, customers also perceive the company (or product or service) performs well in these attributes. The organisation needs continued investments to sustain competitive advantages.

Quadrant II: 'concentrate here'. The attributes are perceived to be very important to customers' purchase decision, but customers perceive the company's performance levels are fairly low. This suggests that organisation needs to focus its effort on improving its performance on these attributes

Quadrant III: 'low priority'. The attributes are perceived to be low important to customers' purchase decision and the company's performance also perceived to be low. As a result, these items are likely to receive a low priority in resource allocation decisions.

Quadrant IV: 'possible overkill'. The attributes are perceived to be low important to customers' purchase decision and the company is also performing relatively high in these attributes. So, these attributes demand a reallocation of resources.

LITERATURE REVIEW:

There is a wide range of literature on consumer behaviour concerning the selection or switching intention of mobile telecommunications service provider (see, for example, Thaichon, Sharma, Raina, & Kapoor, 2016; Kugyt & Šliburyt, 2005). There are many studies (see, for example, Kaur, 2015; Da Silva Fragata & Gallego, 2010; Nielsen, Trayler, & Brown, 1995) available on SME and large business customers' bank selection process and criteria that influence their choice behaviour. But, there is very limited body of knowledge regarding SME and large business customers' buying behaviour towards the selection of an MNO.

Network service quality has been identified as the core service and critical factor to measure customers' perceived mobile service quality, satisfaction and loyalty (Eshghi, Roy, & Ganguli, 2008; Kim & Yoon, 2004), and plays a major role in the intention to purchase the services of an MNO (Thaichon et al., 2016). This dimension includes the scale items like sufficient geographical network coverage, network accessibility (i.e., call set-up, data set-up and connectivity), network reliability (seamless connectivity, voice quality, network congestion (i.e., peak hour calling)) and network service recovery (Kaur, 2015; Kugyte & Šliburyt, 2005). The billing system criteria that bring convenience and satisfaction to customers are billing timeliness (Seth, Momaya, & Gupta, 2008); accuracy and clarity of billing, and ease of understanding (Pezeshki, Mousavi, & Grant, 2009), the comfortable payment methods, locations for bill payment (Liang, Ma, & Qi, 2013) and payment confirmations (Agrawal, Shah, & Wadhwa, 2007).

In general, the employees of a firm represent the human interface of the service provider. It was observed from in-depth interviews and focus group discussions, the customer-employee interactions i.e., the service encounter occurs at three stages namely enrolment of service, maintenance of service, and termination of services. The service encounters occur for SME and large business customers with the designated company representative who identifies, services and manages the business-to-business relationships, as well as with the employees of customer care & help service system and, customer support and complaint handling system. Diligence, information communication, inducements, sportsmanship, and empathy are identified as the unique dimensions of salesperson service behaviour that are vital in consumers' evaluation of service quality (Ahearne, Jelinek, & Jones, 2007). The study carried out by Burgers, Ruyter, Keen & Streukens (2000) showed four sub-scales which are of major importance during voice-to-voice encounters namely: adaptiveness, assurance, empathy, and authority. Procedures to register complaints and effective handling of customer complaints are critical dimension for measuring service quality in cellular mobile communication (Negi, 2009). Zeithaml and Bitner (2000) define competence as possessing the skills and knowledge necessary to perform the service delivery. Turnbull (1979) noted that buyers appear to value personal contacts, interpersonal communication channels, the ease of contact and availability of technical advice reduces their perceived risk. Responsiveness concerns the willingness or readiness of employees to provide service and reliability involves consistency of performance and dependability (Parasuraman, Zeithaml, & Berry, 1985). Here, the tangibles refer to the appearance of the company personnel like neatly dressed, well groomed, neat and clean according to the company rules.

The technology used must be accurate, consistent error-free, (or error levels can be maintained below a specified reliability threshold) user-friendly and reliable (Yang, Jun, & Peterson, 2004). Having up-to-date equipment, the technology (Rahhal, 2015) and the degree of personalisation offered by the technology (Bitner, Brown, & Meuter, 2000) are found as major criteria to measure the tangibility and reliability dimension of service quality. Personalisation can infer as the convenience and benefit of the use of technology. The consumer adoption of Value Added Service (VAS) is affected by the up-to-date mobile VAS (Santouridis & Trivellas, 2010; Kim, Park, & Jeong, 2004) and the cost of VAS (Erlandson & Ocklind, 2000). Convenience is evaluated

by measuring a sufficient number of retailers or kiosks, sufficient methods and locations for bill payment and ease of subscribing and changing services (Hosseini, Zadeh, & Bideh, 2013; Kugyte & Šliburyt, 2005; Gerpott, Rams, & Schindlerl, 2001). Facilitating single point of contact was observed as an important attribute for business customers from in-depth interviews and focus group discussions.

Corporate image is likely to play a major role in customers' choice decisions unless competing services are perceived as virtually identical on performance, price, and availability (Andreassen & Lanseng, 1997). In a business buying situation, customers are expected to prefer stronger brands to minimise their risks (Webster & Keller, 2004) as brand image increases purchase confidence (Romaniuk & Nenycz-Thiel, 2013) and reduced search and transaction costs (Kotler & Pfoertsch, 2007). Customers are more likely to perceive companies with good reputations by several interrelated features—credibility, reliability, responsibility, and trustworthiness (Fombrun, & Van Riel, 1997) which can enhance customers' expectation of corporate capability in providing excellent products or services, and integrity in fulfilling formal contracts or announced promise. When coupled with high corporate abilities, a firm's Corporate Social Responsibility (CSR) actions are more likely to generate favourable attributions and consumer identification (Luo and Bhattacharya, 2006).

The competitiveness of telecommunication service providers is offering enough choice of pricing plans to customers (Eshghi et al., 2008; Kim et al., 2004). Business consumers have heterogeneous preferences, and the complexity and multidimensionality of the cellular service offerings need to cater to these heterogeneous preferences (Fibich, Klein, Koenigsberg, & Muller, 2017). In business to business context, the buyers' Word-Of-Mouth concerning the selling firm is characterised by the buyer's favourable recommendation to other buyers about the company (Swan & Oliver, 1989). The influencers are very likely to communicate and recommend to other members of buying centre by virtue of their involvement in the product category (Blackwell, Miniard, & Engel, 2001). Jackson (1985) defined switching cost as the psychological, physical and economic costs a customer faces in changing a supplier. These costs make switching service providers more difficult or costly for customers. Burnham, Frels, and Mahajan, (2003) provides a comprehensive categorization of switching costs dividing them into three dimensions: procedural – involving economic risk, search and evaluation and learning costs, financial – involving the loss of financial benefits and relational – involving psychological or emotional discomfort resulting from breaking bonds of affection with the provider's staff or with the service brand.

METHODOLOGY:

The Primary data is of paramount importance for this study due to minimal published literature (e.g., Thaichon et al., 2016; Kugyte & Šliburyte, 2005) on various important factors that influence the selection of an MNO and specific to SME and large business customers. In-depth experts interviewing on a one-to-one basis (Seidman, 2013) and focus group discussion evaluation research method over open-ended questionnaires was adopted because of their adaptability and ability to probe and investigate (Bryman & Bell, 2015). Two semi-structured in-depth interviews with industry experts and two interviews demographically representing the SME categories were conducted with a clear plan. Then reconstructed the details and conducted structured in-depth interviews to judge the applicability of instrument items following a schedule of pre-prepared questions in a specific order. To the nature and complexity of the research topic and objectives, the data saturation, for the most part occurred by the time analysed fourteen structured interviews with SME customers and developed the codes later. The focus group methodology was adopted from Powell and Single, (1996), and composed of SME customers of leading MNOs who share key characteristics pertinent to the study. The focus group consists of the key persons of proprietorship and partnership firms who involve in buying of MNO's services and coordinates post-purchase transactions, and comprises between six and 10 participants. Suggestions from expert interviews and focus group led to few changes and a little modification to increase the clarity in the questionnaire. Next, a pilot study involving 15 SME customers was conducted using the modified questionnaire. Consequently, the questionnaire was prepared with seven-point scale in Microsoft Excel and sent as an attachment to the respondents' e-mail addresses. The population being studied belong to the SME customers of leading MNOs in Tamilnadu whereas the target sample respondents are from the west zone of Tamilnadu. The questionnaires were sent to 350 email addresses in which 19 emails were undelivered. The response rate for fully completed questionnaires was 16.28% in the first attempt. A first reminder e-mail was sent to participants, with the aim of motivating participants to complete the survey, which improved the response rate to 30.57%. Later a second reminder was sent to the individuals that improved the overall response rate to 41.43%. In addition to this, the overall uncompleted questionnaire response rate was around 6.29%. Finally, 145 completed questionnaires were qualified for this study. Thus, the primary data was collected following convenience sampling from leading MNOs' SME customers in the west zone of Tamilnadu.

Data Analysis – Identifying Factors:

The results obtained from 145 respondents had been thoroughly analysed applying Principal Component Analysis (PCA), using SPSS to explore the underlying factors associated with 49 items and the outputs of the results have been discussed in details in this section. In accordance with the Cronbach's alpha (α) test, the total scale of reliability for this study varies from 0.851 to 0.860. (Table-1) The construct validity and sampling adequacy were measured and tested the strength of association among variables applying Kaiser–Mayer–Olkin (KMO) and Bartlett's Test of Sphericity. The KMO measure of sampling adequacy was first computed to determine the suitability of using factor analysis which helps to predict whether the data share a common factor structure. KMO is used to assess which variables to drop from the model due to multicollinearity problem. The value of KMO varies from 0 to 1 and KMO overall should be 0.60 or higher to perform factor analysis. The result of the KMO and Bartlett's test of Sphericity revealed that both were highly significant and eventually concluded that these variables were suitable for the factor analysis (Table-2).

Table 1

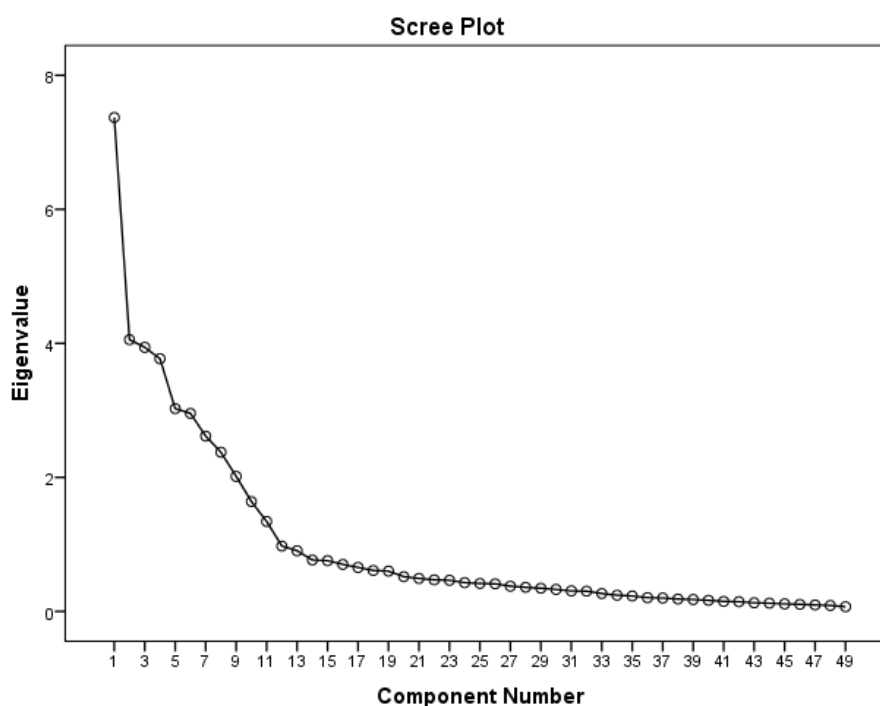
Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
0.858	0.865	49

Table 2

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.714
Bartlett's Test of Sphericity	Approx. Chi-Square	4482.263
	df	1176
	Sig.	0.000

Deciding upon the number of factors that can be retained is difficult but initial runs-based on Eigenvalues (Figure-2) showed 11 factors (Table-3). To determine the minimum loading necessary to include an item in its respective constructs, Hair, Anderson, & Black (1995) suggested that variables with loading greater than 0.30 is considered significant, loading greater than 0.40 more important, and loading 0.50 or greater are very significant. For this study, the general criteria were accepted items with the loading of 0.50 or greater. Not a single factor had been dropped out under this circumstance which means the factor analysis ran on an ultimate success.

Figure 2: Screen plot of attributes



The Value of the following Table-3 indicates the affiliation of the items to a factor. The higher loading (factor) indicates the stronger affiliation of an item to a specific factor. The findings of this study indicate that each of the eleven factors was homogeneously loaded to the different factors. That means each of the that items loaded into eleven different factors, all has proven as significantly related to the consumers' buying decision.

Table 3: Mobile Network Operator selection factors and Items

Item Statistics			
Factor Analysis - Rotated Component Matrix	Factor Loading	Mean	Std. Deviation
Factor 1 - Network Service (N = 4; α = 0.880; Eigenvalue - 7.370)			
Sufficient geographical coverage	0.835	6.63	.695
Connection establishment	0.841	6.47	.746
Connection maintenance and retainability	0.831	6.48	.746
Network service recovery	0.835	6.32	.935
Factor 2 - Billing System (N = 3; α = 0.836; Eigenvalue - 4.056)			
Transparency and accuracy in billing	0.864	6.32	.998
Providing readable and understandable bills	0.893	6.41	.910
Different modes of Payment and payment confirmation	0.759	6.10	1.012
Factor 3 - Service Encounters (N = 10; α = 0.907; Eigenvalue - 3.941)			
Provides dependable & accurate service in timely manner	0.726	6.00	1.007
Responsiveness of customer contact personnel	0.730	6.12	1.003
Communicating information	0.728	5.85	1.076
Interest and concern for the welfare of the customer	0.828	5.84	1.039
Professionalism during client interactions	0.774	5.81	1.014
Knowledge of customer contact personnel	0.742	5.89	1.008
Sportsmanship of customer contact personnel	0.656	5.74	1.093
Ease of access to customer contact personnel	0.724	5.87	1.029
Demonstrating good social judgment	0.689	5.80	.976
Professional appearance	0.697	5.30	1.376
Factor 4 - Technology (N = 3; α = 0.875; Eigenvalue - 3.771)			
Product/Service Completeness (from one provider)	0.883	5.88	1.351
Up-to date technology adaptation and its reliability	0.879	6.46	.979
Convenience and benefit of use of technology	0.882	6.28	1.032
Factor 5 - Value Added Service (N = 3; α = 0.861; Eigenvalue - 3.026)			
Business Value Added Service	0.828	5.38	1.375
Need based VAS Solutions	0.886	5.58	1.321
Up-to-date and convenience of use of VAS	0.824	5.45	1.409
Factor 6 - Convenience (N = 3; α = 0.851; Eigenvalue - 2.955)			
Geographic presence - Local/National/Global	0.872	5.98	.996
Ease of subscription of services	0.856	5.53	1.390
Facilitation of 'Single Point Contact control'	0.862	5.79	1.040
Factor 7 - Reputation (N = 5; α = 0.874; Eigenvalue - 2.616)			
General reputation	0.834	6.23	1.080
Class of Business Customers	0.870	5.97	1.060
Reputation as Service leader	0.807	6.10	1.126
Reputation as Technology leader	0.728	6.03	1.236
Reputation as Price leader	0.766	6.20	1.071
Factor 8 - Brand Image (N = 6; α = 0.856; Eigenvalue - 2.375)			
Familiar Brand in Telecom Industry	0.684	6.34	.952
Trust of corporate brand	0.732	6.23	1.046
The integrity of corporate brand	0.791	6.12	1.017
Brand Energy of the corporate	0.747	6.02	1.010
Influential marketing communication & Tangibles	0.817	5.90	1.177
Socially responsible corporate	0.769	5.04	1.649

Item Statistics			
Factor Analysis - Rotated Component Matrix	Factor Loading	Mean	Std. Deviation
Factor 9 – Word-Of-Mouth (N = 4; $\alpha = 0.836$; Eigenvalue - 2.015)			
Top Management	0.813	5.98	1.003
Middle/Lower Management	0.767	5.74	1.054
Vendors, Business Associates	0.817	5.43	1.353
Friends, Relatives	0.762	5.57	1.207
Factor 10 - Tariff Plan (N = 5; $\alpha = 0.887$; Eigenvalue - 1.640)			
Subscription Price	0.855	6.30	1.050
Usage charges	0.898	6.22	1.083
Financial Incentives	0.829	5.98	1.362
Promotional offers	0.784	5.77	1.302
Subscription cost and Maintenance fee	0.775	5.74	1.369
Factor 11 - Switching Cost (N = 3; $\alpha = 0.835$; Eigenvalue - 1.343)			
Procedural Cost	0.864	5.42	1.256
Financial Cost	0.824	5.57	1.200
Relational Cost	0.806	5.65	1.193
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 7 iterations.			

Data Analysis – Importance-Performance Analysis (IPA):

Measuring the importance of service attributes cannot be simply ignored when analysing customer buying behaviour while selecting a service provider. The nature and magnitude of the relationship between the importance of service attributes and customer satisfaction may change with performance (Bacon, 2003; Kano, Seraku, Takahashi, & Tsuji, 1984).

Table 4:

Table-4	Importance vs. Performance of the Critical Factors, for MNO selection.					
Critical Factors	Importance	Std. Deviation	Ranking	Performance	Std. Deviation	Ranking
Network Service	6.48	0.780	1	5.86	1.234	7
Billing System	6.28	0.973	2	6.10	1.026	3
Service Encounter	5.82	1.062	7	5.70	1.137	8
Technology	6.21	1.121	3	6.26	0.932	1
Value Added Service	5.47	1.368	11	6.01	1.110	5
Convenience	5.77	1.142	8	5.67	1.265	9
Reputation	6.11	1.115	4	6.13	1.168	2
Brand Image	5.94	1.142	6	6.04	1.011	4
Word-Of-Mouth	5.68	1.154	9	5.58	1.223	11
Tariff Plan	6.00	1.233	5	5.65	1.125	10
Switching Cost	5.55	1.217	10	5.91	1.211	6
Global Average	5.94	1.119		5.90	1.131	

Importance Mean scale: 1 - Extremely unimportant to 7 - Extremely important.

Performance Mean scale: 1 - Extremely poor to 7 - Extremely good.

At this point, it was intended to evaluate Importance vs. Performance, based on the eleven critical selection factors (CSF) identified in this study using the IPA matrix developed by Martilla & James (1977). Based on customers' self-stated (explicit) method the importance of various CSF attributes was estimated instead using statistically inferred importance (implicit) method. In the self-stated importance-performance method, through surveys customers are directly asked to rate the importance of various items (attributes) of identified CSF based on their preferences and the perceived performance of every item. The research results are reflected in the above Table-4, according to mean values

FINDINGS AND DISCUSSIONS:

Responses of all 49 items were skewed towards being important considerations to identify 11 critical selection factors namely: network services, billing system, service encounter, technology, value-added service, convenience, reputation, brand image, tariff plan, word-of-mouth and switching cost. In each factor, the importance and performance of its respective items were also identified. Table-3 shows the item wise statistics of the identified eleven CSF considered by the customers to select an MNO. The focus of this study was also to classify the CSF using importance-performance analysis provided by Martilla & James (1977).

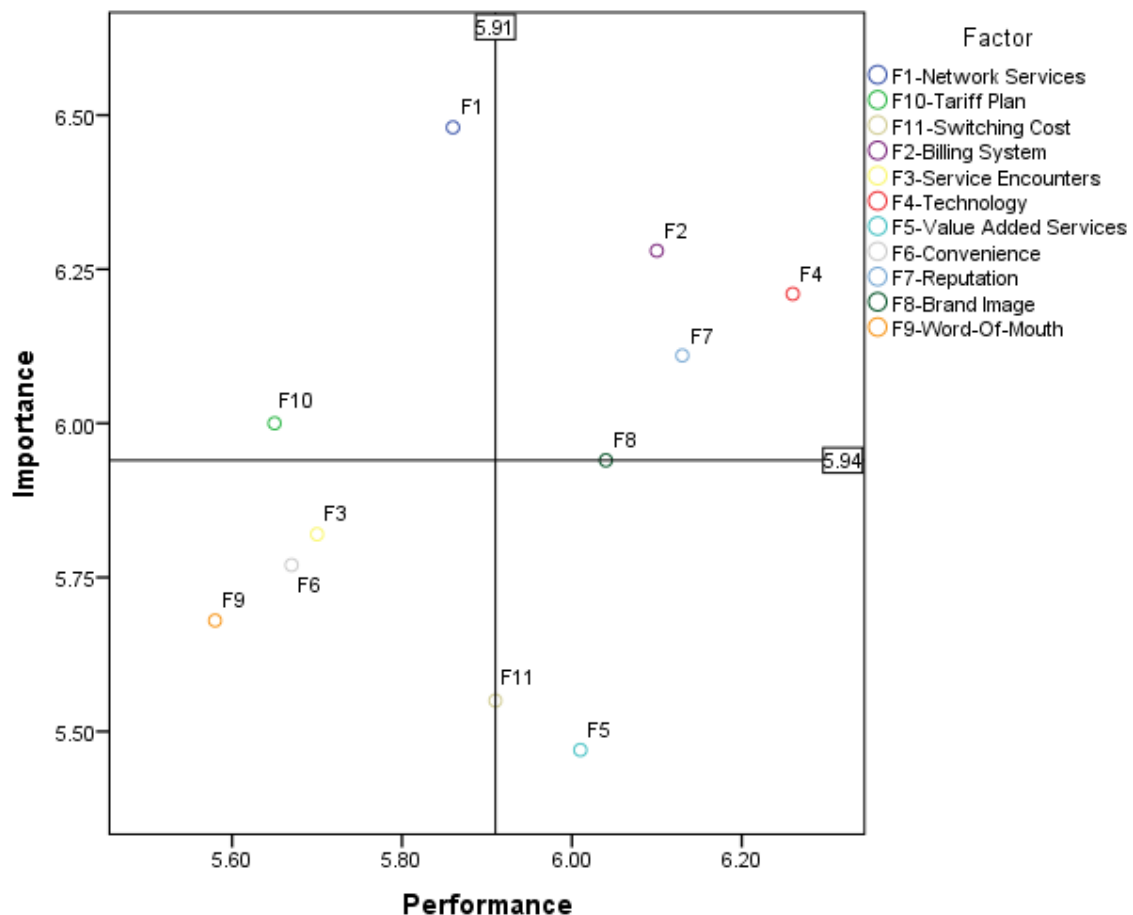
Network service and billing system were identified as very important factors followed by technology. Though reputation and brand image were found to be relatively important factors for SME, the factor 'tariff plan' influences more their buying behaviour. The attributes which have higher mean value than the global average mean (5.94) measuring importance are sufficient geographical coverage, providing readable and understandable bills, responsiveness of customer contact personnel, up-to-date technology adaptation and its reliability, geographic presence - local/national/global, general reputation, familiar brand in industry word of mouth of top management and subscription price. Similarly, the least important attributes are professional appearance and socially responsible corporate as SMEs are not very concern about these factors during the buying process. It is observed that most communications happen over phone or internet. Though the customers want the corporates to be a socially responsible entity, most respondents believed that they would not care much about the CSR activities when making a purchase, which is in line with the findings of Thaichon et al, (2016). The SMEs' mobile telecommunications requirement is also very specific as their usage pattern is limited, which means that most communication is within the Closed User Group (GUG). That is the reason SMEs give higher priority to subscription price rather than usage charges. The need for proprietor or the working partner is very specific (like STD calls) as they interact more with their suppliers and buyers who are scattered in far locations. The word-of-mouth from their friends and relatives play a vital role in the purchase decisions. Though little higher importance is given for relational factor the SMEs are not much worried about the switching costs as technology like mobile number portability has reduced the risk factor of losing important contacts and the procedural cost. More over, the intensified competition from Jio and other leading MNOs, mostly all MNOs offer their services even at nil charges to SME and large corporates. The need for value-added service is also very limited to SMEs.

In general, the availability of a product's or service's main functional features and the customers' experience in use of other auxiliary features/services influence customers' perceived post-purchase evaluation of the particular product or service. According to Quelch and Hoff (1986), consumer response to product quality also changes dynamically as experience builds up, information accumulates, and the cost of quality changes. The perceived performance of MNOs on various attributes which have a higher mean than the global average mean (5.87) measuring performances are familiar brand and general reputation. It is observed from the industry that MNOs are consistently involved in reputation and brand building activities through different marketing communication channels. Up-to-date technology adaptation and its reliability helped the MNOs perform better in improving the geographical network coverage, providing readable and transparent billing, tailored business value-added service and simplified procedures to subscriptions. On the other side, the low performing attributes are the establishment of connections and usage charges. Facilitation of single point contact to SME and large corporates found to be very important to avoid conflict between both the parties and building a business relationship. Overall, the various attributes of factor 'services encounter' has to be improved to score higher than the global average mean.

As discussed above, after measuring all the 49 attributes adopting factor analysis, the identified eleven CSF are plotted in the four quadrants of Importance-Performance Analysis (IPA) as shown in Figure-3 based on the overall median value. The attributes positions shown in the figure have an orientation of median values and consequently, the axes were defined by the overall median values (5.94, 5.91) and for the attributes to the overall averages.

IPA, a simple quadratic presentation displays the results graphically on a two-dimensional grid that explicitly shows the strengths and weaknesses of the key selection attributes being studied. The MNOs can tailor-make marketing strategies using the results provided by the importance and perception of performance revealed in each quadrant of IPA grid from the perspective of customers. By analysing the above figure, it can be verified that the MNOs are keeping up the good work in developing a higher perceived performance in the minds of the customers for factors billing system, technology, and reputation. These factors are observed to be the strategic factors for MNOs and represent opportunities to gain or maintain competitive advantages.

Figure 3: Analysis of the quadrants for the CSE, with medians as the axis



It is found that MNOs perform better in Network service than tariff plan as shown in quadrant II. These two factors are found to be the most critical selection factors for SMEs buying decision. Network service is the core service factor for mobile telecommunications business which develops and enhances the perceived performance in the minds of customers. Tariff plan is the factor which supports the customers to analyse the value proposition of the services experienced. Though some studies reported that companies that invested in service attributes in Quadrant II did not experience an increase in customer satisfaction. (e.g. Sampson & Showalter, 1999; Mittal, Ross, & Baldasare, 1998) the MNOs continue to 'Concentrate Here' as these factors are the key critical factors. The Low Priority quadrants identify those items where MNOs are performing adequately well but customers perceive them as less important in the service provider selection process. The customers perceive factors service encounter convenience, word of mouth, switching cost and value-added services as relatively less important. This does not mean that MNOs should reduce their efforts to improve such services attributes. On the contrary, these service attributes are often considered as the basic facilities offered to the customers, which build the overall positive perception of the service provider.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS:

This study was empirically tested using data of SME mobile customers in the west zone of Tamilnadu which could be different for another segment of customers in mobile telecommunication sector and also in other service industries. In the interest of generalisation, future research should be conducted to test the findings of this study in other customer segments in a different part of the country. Future research should investigate these key selection attributes in order to better understand the effects on customer selection process of an MNO in a more challenging customer environment, which may even bring out new attributes.

MANAGERIAL IMPLICATIONS AND CONCLUSION:

The mobile telecommunications service sector has witnessed high switching rates (TRAI, 2018). The Mobile Network Operators try to acquire new customers through price competition, which might lead to a vulnerable

and imbalanced market in which smaller companies with low capital cannot compete against major corporations (Thaichon et al., 2016). This study was undertaken to investigate and understand various key selection factors that are considered to be important in the selection of an MNO and their perceived performance by SMEs. This process develops into further service provider and consumer relationships that could be distinguished by the acquisition of more and more complicated services. In general, the customers' perception is widely varied in accordance with the eleven factors that were identified from 49 attributes. The intensified competition in the mobile telecommunications business market compelled the MNOs to place greater emphasis on understanding consumers' buying behaviour to guide their strategic marketing decisions to attract and acquire the potential consumers. Using IPA, this study also investigated the differences between the importance of key selection factors and actual performance in relation to these factors as perceived by SME customers, could contribute to further research studies in the area of consumer decision-process theory. This is a useful and effective way for management to identify what problems exist, and why. In practical terms, the IPA technique has helped to divide the MNO selection factors into four identifiable quadrants which will form a foundation for MNOs to better understand how SME customers perceive their products and services and to develop new customer acquisition and existing customer retention strategies.

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