Telecom Industry Brand Image and the Extended Service Marketing Ps: A Study on Private University Students of Rajshahi

Md. Omar Faruk Sarker
Professor, Department of Marketing, University of Rajshahi, Rajshahi, BANGLADESH

*E-mail for correspondence: ofsarker@gmail.com

Source of Support: None
No Conflict of Interest: Declared

ABSTRACT
Marketing always looks forward to making consumers delighted. Mobile telecom service provided a pace in daily life in Bangladesh. It plays a vital role in all the dimensions of our life. The prime objective of the study is to measure the influence of people, process, and physical evidence on brand image in the mobile telecom industry at Rajshahi metropolitan area in Bangladesh. One hundred fifty samples drawn from the students of two private universities using a convenient sampling technique. A structured questionnaire used for the survey. The findings of this study represent that all the null hypotheses rejected; there is a significant relationship between three extended service marketing and brand image in the mobile telecom industry. The researcher believes that this study would help strategy planners of mobile telecom service operators in Bangladesh to study people, process, and physical evidence with keen interest to blend service marketing mix and create and increase brand image as well as open more research relating to this ground. This finding may help different mobile telecom operators in Bangladesh to improve their focus regarding the efficient use of service marketing mix.

Keywords: Mobile Telecommunication Service, Brand Image, Extended Service Marketing Ps, Rajshahi Metropolitan Area, Private University

INTRODUCTION
Service marketing is more challenging for its unique characteristics. The delivery process and achieving trust both are very crucial in providing services. So why, it is an increasing challenge for mobile telecommunication operators. Mobile operators try to attract the new customers and trigger their strategies to sustain their customers. Brand image plays a vital role in having a tempo to help achieve the target. Therefore, customer satisfaction is not sufficient enough to uphold the brand image. Proper utilization of three extended Ps along with four traditional Ps add up to increased profitability of the company (Temporal, 2000). Mobile operators must maintain standards that their customers want (Hossain et al., 2016). Rapid expansion of the telecom industry and higher usage rates raise a question, whether the customers are delighted with the brand image of their operators (Rahman & Rahman, 2015). Intense competition and vibrant consumer characteristics lead subscribers with various alternatives to choose mobile telecom operators according to their handiness. Having a competitive advantage and retain it, telecom operators try to identify the suitable blending of the service marketing mix that create a brand image as well as brand equity.

Brand equity generates a unique value that enhances a company’s long term interests and capabilities (Chen, 2008). Brand equity is generally accepted as a critical success factor in differentiating companies and service providers from their competitors. A brand with a high level of equity is linked with outstanding performance including, sustained price premium, inelastic price sensitivity, high market share, competitive cost structure, and high profitability, contributing to company’s competitive advantage (Keller and Lehmann, 2003).

Customer-Based Brand Equity (CBBE) approach is the dominant perspective because if a brand has no meaning or value to the consumer, it is ultimately meaningless to investors, manufacturers, or retailers (Cobb-Walgren et al., 1995). Keller (1993) told that it occurs when the consumer is familiar with the brand, and holds some favorable, tough, and unique brand associations in their memory. Perhaps, brand associations or brand image is the most acknowledged feature of consumer-based brand equity. It is anything that linked to the customers’ memory to a brand.
Brand image includes product attributes, customer benefits, usages, users, life-styles, product classes, competitors, and countries. Consumers use brand associations to process, organize, and retrieve information in memory and this helps them to make purchase decisions (Aaker, 1991. 1992). To build strong brand equity in the market, it is essential to understand the core dimensions of brand image, which is brand personality (Lee & Oh, 2006). So, a higher level of brand association leads to a higher tendency for brand extension to become significant to customers.

McCarthy (2001) has defined four marketing elements; Product, Price, Place, and Promotion. Booms and Bitner (1981) extended it to 7Ps. People, Process, and Physical evidence are an extension to the previous four in services marketing mix that makes service marketing a complete blending. These form the critical success factors for any service as evaluated by a potential customer. As, service marketing mix creates the brand image, it is necessary to know the impact of a service marketing mix elements on the brand image. In response to this, there is hardly any study that conducted on the impact of three extended service marketing Ps on the brand image that makes the traditional four Ps a complete service marketing mix to the consumers. Therefore, this study attempts to look into the matter.

The objective of the study is to measure the influence of the three extended service marketing Ps on the brand image in the mobile telecom industry.

**Significance of the Study**

Bangladesh is the first South Asian country to adopt cellular technology in 1993. Due to the privatization and liberalization of policy, the mobile telecom sector becomes a vibrant industry in Bangladesh. There are four mobile phone service operators in Bangladesh, namely Grameen Phone Ltd. (GP), Robi Axiata Limited (Robi-Airtel), Banglalink Digital Communications Limited, and Teletalk Bangladesh Ltd. (Teletalk) (BTRC, 2019). The mobile industry in Bangladesh has scaled rapidly over the last decade to become the ninth largest mobile market in the world (GSMA Intelligence, 2018). Blessings of mobile telecom service help to develop every other service area of Bangladesh such as education, healthcare, banking, restaurants, retailing, transportation, water and many other related areas that facilitate the evolution of a modern society (Afza, 2015). By helping to promote digital inclusion and support the delivery of essential services, the mobile industry makes a vital contribution to the economy of Bangladesh and plays a crucial role in supporting the achievement of the government’s Digital Bangladesh and Vision 2021 initiatives, as well as the UN’s Sustainable Development Goals (SDGs) (GSMA Intelligence, 2018).

On the contrary, the shifting views of subscribers in terms of different perceptions slow down the industry growth gradually. With the 2018 spectrum auction, Bangladesh policymakers made important steps towards introducing 4G/LTE services in Bangladesh, but the price per MHz for spectrum was highest in the world, and associated license fees remained. When coupled with a mobile market with some of the lowest ARPU levels in the world, some of this high-priced spectrum went unsold in the auction (GSMA Intelligence, 2018). This highlights the pressure, and importance of setting reserve prices for future spectrum auctions at levels that consider operators’ needs to not only finance access to spectrum, but also to deploy infrastructure to use that spectrum. This will add more pressure, as mobile broadband adoption scales and increased data demand further strains networks, requiring even greater access to spectrum. Without sufficient spectrum, quality of service for users will suffer.

With the challenging ARPU environment in Bangladesh, this cost will result in a lower return on investment for mobile operators. Again, Taxes on the use of mobile services in Bangladesh represent a higher share of tariff costs (22%) than in a number of neighboring countries (GSMA Intelligence, 2018). Overall, the industry dynamics in Bangladesh have changed significantly through the convergence of technologies, the emergence of new digital services, and increased competition from internet. All these have created a challenging investment climate for mobile operators in Bangladesh. This is a challenge as well as an opportunity for the operators in Bangladesh leading the operators to achieve sustainable advantage. The obvious way is to increase brand image followed by brand equity through effective service marketing mix.

**Literature Review**

Literature reviewed to find out the research gap of the study and a better understanding of three extended service marketing mix elements and brand image as well as brand equity.

Hossain and Suchy (2013) identified the influence of customer satisfaction on customer loyalty in the context of the telecom industry in Bangladesh. This study used six significant factors. Finding tells, except sales-promotion, all other five factors have positive relationships with customer loyalty.

Mallikarjuna et al. (2011) revealed that Switching cost is high to pre-paid customers due to low switching costs and competitive tariff plans. As network coverage, tariff plans, service play a vital role in retaining customers; the mobile operators should employ several strategies to manage the challenges. New levels of customer interaction at various stages are necessary to ensure customer loyalty. Providing information on different plans, value-added services, provision and activation of additional services, and customer-friendly environment at all points of interaction are necessary to ensure customer loyalty.

Kabir et al. (2009) measured the factors determining the customer satisfaction and loyalty of the mobile telecommunication industry in Bangladesh. Researchers tried to identify the relationship between service quality
and customer satisfaction along with service quality, switching cost, and the trust with customer loyalty. The study revealed the significant linear relationship between service quality and customer satisfaction. It has also identified that service quality, switching cost, and trust are significant predictors of customer loyalty.

Hasan et al. (2013) revealed the factors influencing customers’ mobile phone operator choice and change behavior as well as exploring the importance of different customer groups while choice mobile phone operators. Both primary and secondary data were used and, collected from 174 respondents by means of a survey method using self-administered questionnaire. The study found that call charge, network coverage, faster internet service, bonus on recharge, and cash back on use are the leading features that influence consumers’ mobile phone operators’ choice and switching behavior. The study also found that there are no significant differences between stayers and switchers with respect to influencing factors except supplementary services, and value added services. So, marketing strategies should emphasize on lowest possible price, strong network coverage, and faster internet service.

Wang and Li (2012) conducted the study to develop and validate a research model empirically that depicts the relationships between the identified key value proposition attributes of mobile value-added services and the core factors of brand equity. Survey data collected from 497 respondents and used structural equation modeling to validate the research model. The results indicate that the mobile service attributes of personalization, identifiability, and perceived enjoyment have significant positive influences on the key brand equity factors. The results also confirm the significance of all the four brand equity factors in interpreting consumer purchase intention for mobile value-added service consumption. The research results have extended the application and advanced the understanding of previous mobile-commerce and brand-equity theories in the context of mobile value-added service.

Islam and Rima (2013) attempted to find out the factors that have a significance influence on customer experience in telecom services and their impact over brand equity. Five factors were used and a survey with questionnaire was conducted among 100 respondents. The study found that three out of five factors; core service, product variation, and promotion has significant influence on customer experience in telecom services.

Rajh and Dosen (2009) investigated how various marketing mix elements affect service brand equity. The research included three services categories (fast food restaurants, banks and retail outlets), from which 10 brands were selected. Research concluded with relating to the necessity for concerted efforts regarding employees, advertising, price level, interior appearance and service operation, as each of these factors positively affects service brand equity.

Akroush and Al-Dmour (2006) tried on how service marketing mix elements affect customer satisfaction relating to commercial banks from its recipients in Jordan. The study identified a significant and positive relationship between the SMM components and customer satisfaction. The study found a significant positive correlation between the extended 3Ps of service marketing mix on customer satisfaction.

The literature review indicates that there is hardly any research in the context of the impact of three extended service marketing mix elements on brand image in mobile telecom service in Bangladesh. It encourages the researcher to attempt the study.

THEORETICAL FRAMEWORK

Service is any act or performance that one party can offer to another that is essentially intangible and does not result in the ownership of anything, and its production may or may not be tied to a physical product (Kotler and Keller, 2006). A brand is a name, term, sign, symbol, design, or a combination of these that identifies the maker or seller of a product or service. A brand represents consumers’ perception and feelings about a product and its performance-everything that the product or service means to consumers (Kotler and Armstrong, 2008). Brand image is the perception of customers about a particular brand. It is formed in the minds of existing or potential customers based on the experience and interaction of the customers with the brand. Customer perception is the customers’ judgment over the brand image, expectations, external influences, service quality and so on. The process in which a person selects, arrange, and interpret stimuli, these stimuli are filtered and adjusted to become one’s own view of the world. Self-perception, benefits perception, price perception, Perceived customer value, or customer’s belief on the brand, and so on drive behavior (Schiffman and Kanuk, 2000).

Elements that can satisfy service consumers are the services marketing mix offered by the marketers. The traditional concept of the marketing mix; product, price, place, and promotion was introduced by Borden in 1948 (Kent, 1986) while Booms and Bitner added additional three Ps; people, physical evidence, and process in 1981 to have a more comprehensive model for a service product (Booms and Bitner, 1981). Lovelock argued that the service marketing mix should be eight Ps. The eighth P is productivity and quality (Lovelock, 2001). In general, the 3Ps effect on customers’ satisfaction was found more than the traditional marketing mix components 4P (Akroush et al., 2005). Zeithaml and others proposed another way to address the challenges of services marketing through thinking creatively about an expanded marketing mix for the future (Zeithaml et al., 2006). The operational definition of the dependent and independent variables is explained for the study accordingly. People consists of staff with their attitude, service knowledge, and skills. Employees need the support of the company to execute in the best possible ways to serve the service brand (Grönroos, 1994). Process indicates the flow of activities by which a service is delivered. Service delivery can either raise or lower the perceived value of the respective service (Tseng et al., 1999). Consumer experience with service has a direct impact on the creation of its brand image, which in turn affects brand
equity (Berry, 2000). Physical Evidence is the environment within which the service is delivered and the use of tangible, material elements of service to communicate the value of the service. Physical environment affects service brand image and consumer satisfaction (Bitner, 1990). Brand Image refers to a consumer’s perception of the brand reflected by the brand associations held in his or her mind. It includes products’ appeal, ease of use, functionality, fame, and overall value. When consumers purchase a service product, they also purchase its brand image.

Hypotheses of the Study

Following hypotheses were developed to test for achieving the objective:

- **H01**: There is no significant influence of the people on brand image.
- **H11**: There is a significant influence of the people on brand image.
- **H02**: There is no significant influence of the service delivery process on brand image.
- **H12**: There is a significant influence of the service delivery process on brand image.
- **H03**: There is no significant influence of physical evidence on brand image.
- **H13**: There is a significant influence of physical evidence on brand image.

Research Methodology

This study is quantitative and empirical. Both primary and secondary data used in the study. Primary data collected along with few secondary data as a supplement to draw meaningful results. Primary data collected from the subscribers of mobile service. Secondary data collected from books, journal articles, dissertations, websites, and newspapers. Selected elements of extended 3Ps of the service marketing mix used for the purpose. Barendra University, Rajshahi, and North Bengal International University, Rajshahi, selected purposively from Rajshahi metropolitan area for the convenience of collecting data. There are 51% unique mobile subscribers, and almost 50% subscribers are under 25 years of age in Bangladesh and 21% unique mobile internet users. Moreover, smart phone represents 31% of the total connections (GSMA Intelligence, 2018). Pre-survey report says, in private universities in Rajshahi, 100% students use cell phone, and mobile internet and 82% students use smartphone. Considering all these, students were considered as respondents. The sample size was one hundred fifty as the target population was almost homogeneous, and thought to be sufficient enough to draw a reliable conclusion. A convenient sampling technique used for selecting sample size. Primary data collected through a survey using simple random sampling technique with a structured questionnaire of close-ended questions. Five-point Likert scale used mostly in the questionnaire. Five-points were used in the questionnaire. Primary data collected from 13th September to 20th September, 2019. For analysis, IBM SPSS, 22.0 version software packages, operated where Chi-square test used to test the three hypotheses developed.

Chi-square Test Statistic: The chi-square test statistic is a useful technique for the association studies among the categorical variables. The key assumptions of this test statistic are; sample should be independent and random.

\[ \chi^2 = \sum_{i=1}^{N} \frac{(O_i - E_i)^2}{E_i} \]  
(Akroush, & Al-Dmour 2006)

Discussion and Results

Brand image is very imperative because it creates a sense of belongingness, emotional binding among customers with the firm. As the purpose of the study is to investigate the influence of the elements of three extended Ps of service marketing mix on brand image, the following results will justify it for the study area.

Table 1: Association between the people and brand image

<table>
<thead>
<tr>
<th>Brand Image</th>
<th>People</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide high brand value for money</td>
<td></td>
<td>.000*</td>
<td>.000*</td>
<td>.011*</td>
<td>.021*</td>
<td>.001*</td>
<td>.004*</td>
<td>.004*</td>
<td>.092*</td>
</tr>
<tr>
<td>Committed even service changes</td>
<td></td>
<td>.000*</td>
<td>.011*</td>
<td>.002*</td>
<td>.005*</td>
<td>.112</td>
<td>.324</td>
<td>.032*</td>
<td>.024*</td>
</tr>
<tr>
<td>Stay even price increases or competitors’ price decreases</td>
<td></td>
<td>.000*</td>
<td>.001*</td>
<td>.002*</td>
<td>.005*</td>
<td>.001*</td>
<td>.002*</td>
<td>.050*</td>
<td>.050*</td>
</tr>
<tr>
<td>Stay even withdrawal of advertising support</td>
<td></td>
<td>.000*</td>
<td>.001*</td>
<td>.135</td>
<td>.003*</td>
<td>.000*</td>
<td>.213</td>
<td>.276</td>
<td>.049*</td>
</tr>
<tr>
<td>First choice and straight forward to use</td>
<td></td>
<td>.000*</td>
<td>.627</td>
<td>.002*</td>
<td>.023*</td>
<td>.001*</td>
<td>.004*</td>
<td>.213</td>
<td>.343</td>
</tr>
<tr>
<td>Proud and delighted to use the brand</td>
<td></td>
<td>.001*</td>
<td>.225</td>
<td>.001*</td>
<td>.237</td>
<td>.003*</td>
<td>.023*</td>
<td>.002*</td>
<td>.354</td>
</tr>
<tr>
<td>Share experience and recommend to others</td>
<td></td>
<td>.001*</td>
<td>.237</td>
<td>.000*</td>
<td>.001*</td>
<td>.005*</td>
<td>.013*</td>
<td>.013*</td>
<td>.034*</td>
</tr>
<tr>
<td>Highly trusted brand</td>
<td></td>
<td>.002*</td>
<td>.023*</td>
<td>.049*</td>
<td>.022*</td>
<td>.403</td>
<td>.011*</td>
<td>.002*</td>
<td>.342</td>
</tr>
<tr>
<td>Capable to provide the best service</td>
<td></td>
<td>.000*</td>
<td>.278</td>
<td>.211</td>
<td>.412</td>
<td>.312</td>
<td>.028*</td>
<td>.004*</td>
<td>.338</td>
</tr>
<tr>
<td>Much more than a service</td>
<td></td>
<td>.003*</td>
<td>.312</td>
<td>.012*</td>
<td>.420</td>
<td>.012*</td>
<td>.236</td>
<td>.001*</td>
<td>.442</td>
</tr>
</tbody>
</table>

Note: * means statistically significant (p<0.05).

Values of the table show a statistically significant association between a large number of elements of people and brand image. Most of the items, more than 90%, are statistically significant; (p<0.05). So, the null hypothesis is rejected. Therefore, it can be concluded that there is a significant influence of the people on brand image.
The above result shows that most of the items, more than 90%, shown in the chi-square test statistic, are statistically significant; (p<0.05). Hence, the null hypothesis is rejected. So, it is concluded that there is a significant influence of the service process on brand image.

Table 3: Association between physical evidence and brand image

<table>
<thead>
<tr>
<th>Physical Evidence</th>
<th>C1</th>
<th>C2</th>
<th>C3</th>
<th>C4</th>
<th>C5</th>
<th>C6</th>
<th>C7</th>
<th>C8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide high brand value for money</td>
<td>0.000*</td>
<td>.001*</td>
<td>.004*</td>
<td>.011*</td>
<td>.118</td>
<td>.014*</td>
<td>.005*</td>
<td>.172*</td>
</tr>
<tr>
<td>Committed even service changes</td>
<td>.002*</td>
<td>.012*</td>
<td>.001*</td>
<td>.001*</td>
<td>.039*</td>
<td>.004*</td>
<td>.005*</td>
<td>.011*</td>
</tr>
<tr>
<td>Stay even price increases or competitors’ price decreases</td>
<td>.000*</td>
<td>.002*</td>
<td>.004*</td>
<td>.000*</td>
<td>.023*</td>
<td>.153</td>
<td>.003*</td>
<td>.008*</td>
</tr>
<tr>
<td>Stay even withdrawal of advertising support</td>
<td>.001*</td>
<td>.322</td>
<td>.034*</td>
<td>.002*</td>
<td>.013*</td>
<td>.265</td>
<td>.003*</td>
<td>.019*</td>
</tr>
<tr>
<td>First choice and straight forward to use</td>
<td>.000*</td>
<td>.000*</td>
<td>.013*</td>
<td>.000*</td>
<td>.231</td>
<td>.013*</td>
<td>.003*</td>
<td>.019*</td>
</tr>
<tr>
<td>Proud and delighted to use the brand</td>
<td>.002*</td>
<td>.002*</td>
<td>.048*</td>
<td>.006*</td>
<td>.424</td>
<td>.042*</td>
<td>.004*</td>
<td>.012*</td>
</tr>
<tr>
<td>Share experience and recommend to others</td>
<td>.117</td>
<td>.000*</td>
<td>.167</td>
<td>.001*</td>
<td>.127</td>
<td>.032*</td>
<td>.001*</td>
<td>.017*</td>
</tr>
<tr>
<td>Highly trusted brand</td>
<td>.000*</td>
<td>.004*</td>
<td>.039*</td>
<td>.001*</td>
<td>.004*</td>
<td>.042*</td>
<td>.004*</td>
<td>.019*</td>
</tr>
<tr>
<td>Capable to provide the best service</td>
<td>.002*</td>
<td>.015*</td>
<td>.431</td>
<td>.113</td>
<td>.178</td>
<td>.342</td>
<td>.003*</td>
<td>.017*</td>
</tr>
<tr>
<td>Much more than a service</td>
<td>.003*</td>
<td>.001*</td>
<td>.017*</td>
<td>.003*</td>
<td>.253</td>
<td>.017*</td>
<td>.002*</td>
<td>.004*</td>
</tr>
</tbody>
</table>

Note: * means statistically significant (p<0.05).

The result indicates that the majority of the items, more than 80%, showed in the chi-square test statistic proved to be statistically significant; (p<0.05) in the study. As a result, the null hypothesis is rejected. Therefore, it is concluded that there is a significant influence of physical evidence on brand image found in the study.

Findings show that most of the elements of people, process, and physical evidence influence brand image in mobile telecom service in the study area significantly. The study reveals that brand image develops when three Ps combine in the service marketing mix extended. It indicates the proper and effective use of three extended service marketing mix to increase brand image leading to customer-based brand equity.

**Conclusion**

The study shows that the three extended service marketing Ps have a critical role in adding value to the brand image and help to make a good reputation as well as make a long term profitable relationship with the brand. Result reveals the significant influence of people, service delivery process, and physical evidence together and individually in creating brand image in the telecom industry in Bangladesh. It is a signal to the mobile operators to put equal concentration for extended service marketing Ps along with traditional Ps in creating brand image. Urban people use more voice call and additional contents including internet (BTRC, 2019) and Rajshahi metropolitan area is not exception to this. University students of the study area use more and more contents including internet (BTRC, 2019) and private university students of the study area do the same. If subscribers are provided with effective extended Ps; people, process, and physical evidence, mobile service operators will be able to increase average revenue per user from urban private university students. Again, if subscribers’ complaints regarding the extended three service marketing Ps are solved with keen interest and commitments, it may provide a sense of belongingness to the brand in a sustainable manner. Therefore, the study may be useful to the mobile service operators to plan and execute marketing strategies to gain competitive advantage and sustainable marketing.

**References**


---0---

How to Cite this Article