

To study the relationship between tyre service providers and puncture mechanics for setting up a tyre services kiosk in petrol pumps across the Mumbai region

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ABSTRACT

This research paper provides opportunities to keep start-up platform companies (tyre service providers) as a business model that creates value for puncture mechanics and petrol pumps. The objectives of this study were to identify the role of platform companies in setting up a tyre service kiosk, the other objective was to study the willingness of puncture mechanics to work at designated petrol pumps and to identify the preference of branded equipment used by puncture mechanics. The study was conducted in different parts of Mumbai city. Initially, secondary data was focused on tyre service providers and potential partners for setting up a kiosk inside a petrol pump. This was followed by quantitative research in nature, to make the study effective primary data was collected using a structured questionnaire. Primary data was collected from 150 respondents who were puncture mechanics throughout the Mumbai region. During this research it was found that puncture mechanics had a preference for certain brands of tyres, they also preferred certain equipment which were necessary for their day-to-day work. Puncture mechanics were getting business for a certain duration of the day. This research conclude that willingness of puncture mechanics to work in petrol pumps kiosk is independent on location provided by tyre service providers. It also states that type of equipment handled by puncture mechanics is independent of brands used by them.

Keywords: *Tyres service providers, puncture mechanics, petrol pumps, kiosks, potential partners.*

INTRODUCTION

In the rapidly evolving landscape of modern transportation, efficient puncture mechanics have become indispensable. With the proliferation of automobiles on the roads, addressing tyre related mishaps has gained paramount significance. In the context, the emergence of innovative solutions, such as self- service kiosk and on demand tyre service providers, has revolutionized the traditional approach to puncture repair.

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(Kotler, 1996) said that “In order to serve more effectively in the competitive market, the solution to price competition has been developed a differentiated offer and delivery which includes innovative features that set the platforms companies apart from the competition with higher brand image”.

In previous days the motorist had to navigate through the frustration of changing a flat tyre themselves or relying on petrol pumps for assistance. The evolving landscape of automotive industry has fostered collaborations between puncture mechanics and platform companies (tyre service provider). These companies bridge the gap between drivers in need of puncture repair services and skilled puncture mechanics. Over the last few decades, designated petrol pumps have observed a major change due to technological advancement, change in customer habit, expectation etc. Accordingly, customer service has also undergone a major change. While empathy and active listening plays an important role in enhancing customer service (HCM Sales, 2017).

Tyre service providers take many factor for setting up a kiosk inside a petrol pumps from Indian oil Cooperation limited (IOCL), Bharat petroleum Cooperation limited(BPCL), and Hindustan petroleum Cooperation limited, which helpful for puncture mechanics to identify designated petrol pumps. The Factor include such as space availability, Kiosk size, Availability of equipment are taken into consideration. Petrol pumps also undergoes adoption of technology in a massive way, apart from basic requirement for fuel purchase, usage of technology, payment solutions and facilities, and availability of integrated convenience at petrol pumps (Sari, 2017).Therefore there is a need of tyre service providers to open a kiosk inside a petrol pumps.

In petrol pumps associated services like air pressure checking, vehicle cleaning, and convenience stores, are the prime need for consumer and platform companies should focused on it to retain customers. (Devi, 2016).Along with the good quality and quantity of fuel in petrol pumps other primary facility also play an important role like air pressure checking, wind shield cleaning, mechanic facility and availability of refreshment are the important needs for consumers in petrol pumps (Mary, 2018) .Air pressure plays an important role to retain customers (Priyadharshini, 2019).

In this paper, an effort is made to identify the role of platform companies in setting up a tyre service kiosk. The other purpose was to identify the willingness of puncture mechanics to work at designated petrol pumps and also to identify the preference of branded equipment used by puncture mechanics.

LITERATURE REVIEW

A Fuel station (Petrol pumps) is a place where they sell fuel and engine lubricants for motor vehicles. However, over a last few year, and due to competitive market, Fuel retail companies like Indian oil cooperation limited, Bharat petroleum cooperation limited and Hindustan petroleum cooperation limited had started providing various value added services like free air for vehicle tyres, Car Wash, Kiosk for vehicle repair, convenience stores, clean toilet, kids zone etc. Customer buying behaviour has also evolved with the concept of availing value-added services leading to service-based industry. Petrol pumps in India have expected major shift from “only petrol pumps” having fuel products for sale to “Recreation centre” with the concept of value-added services under one umbrella (Bigelow, 2019).

Due to increasing emphasis on customer has also led to a greater understanding of the sales and retention. A cross- industry comparison of customer satisfaction study in USA AND UK showed that in today scenario, customer service quality has been demonstrated as key to customer retention (Gilbert, 2006). Consumer satisfaction is derived from the customers comparison of the customers actual experience with a service episode, contrasted with the customers service expectation.

Service quality varies within industries, and because of this organizations competing in similar markets are compelled to monitor both the practices of their competitors and their own behaviour to attract and retain their customers (Moran, 2008). There has been linear to nonlinear relationship within shopping journey with respect to their brands and risk associated with customer shopping journey (Farah, 2019).

Globally, Petrol pumps has undergone a huge change. Some factors play a historically important role (E.g., price, quality, etc) while some factors have emerged because of increasing competition and technological advancement like kiosk inside petrol pumps. There are many factors that has emerged as customer choices and preferences. It has been observed that in the process of buying fuel from petrol pumps other things are also taken into considerations like quality of fuel, price, availability of tyre repair, Kiosk before selecting a petrol pump (Petra, 2017). Geographical coverage of petrol pumps and consumer perception of customer confidence plays an important role on customer buying decision (Marc, 2012).

Organized retail kiosk in India is growing very fast and consumer buying behavioural dimensions are undergoing rapid changes (Katole, 2012). Customers needs and trends vary from region to region , therefore non fuel kiosk proposition has to be specially targeted each retail kiosk and customized according to demographics of the regions

(Patel, 2012).Nowadays due to implementation of advanced technology smart- kiosk has great potential to grow in future (Das, 2019).

Factors such as customer stratification, brand trust and brand image towards customer loyalty in India recommended that fulfilling customer expectation's is the main priority to retain and enhance the customer loyalty (Azizan, 2019).Introduction of self-service pumps and self-service kiosk reduced the traffic of people in petrol pumps and attendants at fuel stations, shifting the work done by these attendants to the customer.

This had helped differentiate the customer buying experience and attain upward productivity growth (Emek, 2017). Fore court efficiency in the fuel station is also very important from the perspective of customer perception and satisfaction. Poor staffing, inefficient fuel pumps, queuing at fuel stations are common factors leading to inefficient service delivery at fuel stations (Ajayi, 2017).

Nowadays important trends of customer loyalty have been introduced. Customers has observed that fuel supply company are offering customer loyalty programs to build customer loyalty and increase repeat purchase (Madel, 2020).In today's world if company is providing an innovative customer experience for brand differentiations are more successful and retaining the customer on a greater extent (Pham, 2019).

In modern retail they provide a large variety to customers and offer an ideal shopping experience with an amalgamation of product, entertainment and service , all under a single roof (Sahney, 2016).Due to emerging trends for preference of organized retail , small retail had to initiate strategies for survival (Rai, 2014).Nowadays customer demands for non-fuel facility at petrol pumps has been increasing as a part of customer convenience. The concept of petro-retaling in India has witnessed competition among the petroleum cooperations due to linearization in policy by government of India that allows private petroleum cooperation to establish their fuel stations.

It has been observed that augmented factors would help to increase non-fuel revenue but such a model has yet to be successful in India because margins in selling petrol and diesel are significantly lower compare to margins in retails and supermarket kind of structures (Report, 2017).Today in petrol pumps many services are provided other than fuel like Automated Teller Machine(ATM), Food Lodge, Free air service etc (Keerthika, 2019).In Petrol pumps, associated services like air pressure checking, vehicle cleaning and availability of refreshment are important needs for consumers in petrol pumps (Mary, 2018), (Devi, 2016).Air pressure plays an important role to retain customers (Priyadharshini, 2019).

Based on the literature that profoundly relied upon Facility available inside petrol pumps, the study helps to understand the relationship between puncture mechanics and tyre service providers for setting a kiosk inside a petrol pumps, also to identify branded equipment required by tyre service providers.

OBJECTIVES OF THE STUDY

- To identify the role of platform companies in setting up a tyre service kiosk.
- To study the willingness of puncture mechanics to work at designated petrol pumps.
- To identify the preferences of branded equipment used by puncture mechanics.

HYPOTHESIS

H1o: Willingness of puncture mechanics to work in petrol pump kiosk is independent on location provided by tyre service providers.

H11: Willingness of puncture mechanics to work in petrol pump kiosk is dependent on location provided by tyre service providers.

H2o: Type of equipment handled by puncture mechanics is independent on brands used by them.

H21: Type of equipment handled by puncture mechanics is dependent on brands used by them.

RESEARCH METHODOLOGY

The research is quantitative in nature. The sample consists of Puncture mechanics located in Mumbai region. A sample size of 150 respondents is used in this research. Data was collected in four main region that is western region (60) respondents, central region (40) respondents, harbour region (30) respondents and others (20) respondents. Secondary data was collected through literature review and internet surveys. A Structured Questionnaire was prepared by the researcher. Statistical Package for Social Sciences (SPSS) software was used for data analysis.

LIMITATIONS

The survey was conducted within the Mumbai region only. The period of the research was a period of two months (time constraint). This research is also subject to cost constraints.

DATA ANALYSIS

Hypothesis 1

H1o: Willingness of puncture mechanics to work in the petrol pump kiosk is independent on location provided by tyre service providers.

H11: Willingness of puncture mechanics to work in petrol pump kiosk is dependent on location provided by tyre service providers.

Table 1: Cross-- tabulation for Location provided by tyre service provider and willingness to open a kiosk by respondent inside a petrol pump

Location Provided by tyre service providers (Mechmiles) * willingness of potential partners (Puncture mechanics) to work in petrol pump kiosk					
Cross-tabulation					
			Willingness of potential partners (Puncture mechanics) to work in petrol pump kiosk		Total
			Yes	No	
Location selection by tyre service providers (Mechmiles)	Easily Accessible	Count	33	13	46
		Expected Count	29.8	16.2	46
		% of Total	23.20%	9.20%	32.40%
	Accessible	Count	23	16	39
		Expected Count	25.3	13.7	39
		% of Total	16.20%	11.30%	27.50%
	More Vehicular Traffic	Count	28	15	43
		Expected Count	27.9	15.1	43
		% of Total	19.70%	10.60%	30.30%
	Others	Count	8	6	14
		Expected Count	9.1	4.9	14
		% of Total	5.60%	4.20%	9.90%
Total		Count	92	50	142
		Expected Count	92	50	142
		% of Total	64.80%	35.20%	100.00 %

Source: Researchers' Primary Data

Table 1 shows that out of total respondents 23% of puncture mechanics opted for locations which are easily accessible, 16% for accessible, 20% for more vehicular traffic and 6% as others.

Table 2: Chi-square test for willingness to open a kiosk and location provided by respondents

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.913 ^a	3	.591
Likelihood Ratio	1.925	3	.588
Linear-by-Linear Association	.836	1	.360
N of Valid Cases	142		

Source: Researchers' Primary Data

Table 2 suggests, the p value as 0.591. Since the p value is $0.591 > 0.05$. Therefore we fail to reject the null hypothesis. Therefore, Willingness of puncture mechanics to work in petrol pump kiosk is independent on location provided by tyre service providers.

Hypothesis 2

H2o: Type of equipment handled by puncture mechanics is independent of brands used by them.

H21: Type of equipment handled by puncture mechanics is dependent of brands used by them.

Table 3: Crosstabulation for Brand preference and type of equipment required

Brand preferences by potential partners (Puncture mechanics) * Type of equipment used by puncture mechanics							
Crosstabulation							
			Type of equipment necessary for service given by puncture mechanics				Total
			Tyre Brands	Toolbox	Air Gun	Other	
Brand preferences by potential partners (Puncture mechanics)	MRF	Count	6	9	5	1	21
		Expected Count	7.2	8.3	4.1	1.3	21.0
		% of Total	4.2%	6.3%	3.5%	0.7%	14.8%
	CEAT	Count	23	25	12	4	64
		Expected Count	22.1	25.2	12.6	4.1	64.0
		% of Total	16.2%	17.6%	8.5%	2.8%	45.1%
	Apollo	Count	17	16	9	4	46
		Expected Count	15.9	18.1	9.1	2.9	46.0
		% of Total	12.0%	11.3%	6.3%	2.8%	32.4%
	Other	Count	3	6	2	0	11
		Expected Count	3.8	4.3	2.2	.7	11.0
		% of Total	2.1%	4.2%	1.4%	0.0%	7.7%
Total		Count	49	56	28	9	142
		Expected Count	49.0	56.0	28.0	9.0	142.0
		% of Total	34.5%	39.4%	19.7%	6.3%	100.0%

Source: Researchers' Primary Data

Table 3 shows that out of total respondents 39% prefer toolbox, 34% tyre brands, 20% air gun and 6% as others. It also states that Puncture mechanics prefer 4% as MRF, 16% CEAT, 12% as Apollo and 2% as other branded tyres.

Table 4: Chi-square test for Type of equipment and brand used by them.

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.859 ^a	9	.970
Likelihood Ratio	3.476	9	.942
Linear-by-Linear Association	.053	1	.818
N of Valid Cases	142		

Source: Researchers' Primary Data

Table 4 suggests, the p value as 0.970. Since, the p value is $0.970 > 0.05$. Therefore we fail to reject the null hypothesis. Therefore, Type of equipment handled by puncture mechanics is independent of brands used by them.

CONCLUSIONS

- Willingness of puncture mechanics to work in petrol pumps kiosk is independent on location provided by tyre service providers, Type of equipment handled by puncture mechanics is independent of brands used by them.
- Thus, the selection of location by puncture mechanics to open a kiosk inside a petrol pump does not have any relevant link with a willingness to work inside a kiosk.
- The type of equipment required by puncture mechanics to work in kiosk does not have any relevant link with brands of tyres which are available for them.

SUGGESTIONS

- There is no relationship between the type of equipment required by puncture mechanics and the brand associated with them, so the company should focus on equipment that contains some kind of quality it, which helps tyre service providers to earn more margin and profit.
- Tyre Service Providers should focus on providing location to puncture mechanics in such a way that they can open a kiosk inside a petrol pump with their choice of convenience because there is no relationship between location and willingness to open a kiosk inside a petrol pump.
- Tyre Service Providers should focus on creating a lead in terms of new petrol pumps and maintaining inventory of equipment required by puncture mechanics.

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