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DEMOGRAPHIC SEGMENTATION IMPACT ON CUSTOMER
PERCEPTION TOWARDS CALL TAXI SERVICES IN TIER – II TOWN
OF NAGPUR IN MAHARASHTRA (INDIA)

Dr. Snehal Godbole

Assistant Professor in Marketing Management
Dr. Ambedkar Institute of Management Studies and Research, Nagpur

Mr. Arvind Deshmukh

MBA (Marketing), General Manager (Sales)
Chordia Foods Products Limited

**Dr. Snehal Godbole, Mr. Arvind Deshmukh: Demographic Segmentation Impact on
Customer Perception Towards Call Taxi Services in Tier – II Town Of Nagpur in
Maharashtra (India)**

**Keywords: Aggregators, Consumer Perception, Demographic Factors, Call Taxi
Services, Tier – 2 Cities**

ABSTRACT:

There is a steep fall in the sale of customer cars for private owners but the business of Ola and Uber is on the rise. The taxi market has seen tremendous growth over past 5 years with the introduction of Uber in 2013, when it came with mobile applications and from there on the business is growing. As the disposable income of the consumer is increasing there is a rise in the customers who are looking for a safe and quick pick up and drop facility to their destination and that too hassle free. This research study tries to find what impact these cab aggregators have on the consumers and the perception consumers have in availing call taxi services in Tier – 2 cities, with concerns in ease of access, security, payment options, promotions, discounts, convenience, knowledgeable drivers, GPS enabled vehicles, payment options, 24×7 user support, electronic fare meters, etc. and what has resulted in its growth. Hypotheses were framed with respect to the demographics factors and these were tested along with the data reliability test which was also performed. The outcome clearly shows that the perception of the customers is motivated with demographic factors such as education, income, occupation and age.

INTRODUCTION:

In a country like India with growing population growth in the economy and growing disposable income demand the customers are now ready to pay for comfort and convenience. End to end taxi marketplace is unorganized in major cosmopolitan's towns and B tier cities. The unorganized taxi service market (\$ 8.5 billion) was controlled by certain hands providing sub-standard services are facing tough competition (Dr. P. Kishore Kumar, Dr. N. Ramesh Kumar). Organized taxi service market (\$ 500 million) in 2003 was started by Radio Taxi and this trade soon arose as

a business to recon due to its growth in the Indian vehicle division, which was established in Delhi with the Mega Corp wheels and the revolution came when app based services were started in 2010 (Dr. Rupali Rajesh & Snehal Chincholkar). The middle class segment population increased and due to its growing disposable demand, this segment is ready to more money to the ace service providers. Speedy financial progress, linked with the development of structure, the hard work of India's project process and the process of BPO's industry on behalf of the Ministry of Tourism gave a major impetus to the car hire commerce in our country. The structured segment has made up his presence felt in the current market situation and is further classified into owners, affiliators and aggregators (Prof. Manjunath G). As the competition is increasing and the demand for rental car services is on a steep rise the feature and ease of sources engaged in making these services has also increased (V. Hemanth Kumar and K. Sentamilselvan). The current scenario of the market is gauged to be 48,000 crore rupee and of which only 5% of it is organised which implies the tremendous growth prospects in the current scenario. It is been anticipated that the sorted players will have a 15% market share which is increasing at an amazing speed of 45% each year. It also evident form the fact though a steep decline in sale of private customer cars the business of Ola and Uber is on the rise.

SIGNIFICANCE OF THE STUDY:

The organized taxi services is witnessing a major change as over a past few years as the city travel is made easy in Tier – 2 cities. Cabs booking have become very easy as customers just use their smartphones to book a cab and have a safe and hassle free drive to their destination. With changing time the options to travel with have also changed and today the customer is looking for a safe ride to their destination.

RATIONAL OF THE STUDY:

With the aim of studying the customer perception towards the call taxi services various responses of the taxi services user are taken into account. The study aims to identify the issues and problems faced by the users while they are availing these call taxi services. The organised taxi services are trying hard to attract the customers through offers and other incentives the customers are getting while renting these services. The study will try to show the perception of the customers when they use Ola and Uber call taxi services. Call Taxi services companies who are working in this regards will know where they lack and what more a customer is looking for and after working on which the companies may expect more loyal customers and mouth publicity that will bring more new customers.

LITERATURE REVIEW:

Prof. Manjunath. G (2015) in his research work talks about the market is dependent on consumer preference, creating awareness and customer satisfaction. His further emphasis's on the factors that are decisive to make the decision for rental car services and safety of the customers still remains a parameter to improve upon. Dr. Rupali Rajesh & Snehal Chincholkar (2018) talks about the bright future of aggregator's taxi services in India

especially in towns where there is heavy traffic and the issues of space to park and lengthy travel is still not sorted out. They also made it a point for the providers that marketing strategies to be designed with their customer relationship plans and customer perception about safety. Ashish Avinash Khade & Dr. Vaibhav Patil (2018) talks about the discount coupons and offers to attract customers. Improvement in payment systems, fluctuation in the prices during peak hours and rains, cleanliness, reduce waiting time and safety to women's could be the factors to be considered while opting for rental car services. Hemanth Kumar and K. Sentamilselvan (2018) talks about creating benevolence to satisfy what the customer is expecting that will help the providers to build up on the brand image. Utsav Pandya, Rishi Rungta & Geetha Iyer (2017), in their research work argues about the factors that are playing an important part in the call taxi services market. Vanishree Sah (2018) has assessed the service quality form the customer's perspective. The study also identified the gaps that are prevalent as per the need of the consumer from service quality dimensions. Dr. Uthira. D (2018) in her research work emphasizes on the benefits the customers drive form the service providers in terms of accessibility, discounts offered, minimum rental, good hygienic conditions within the vehicle, Global Positioning System, and ease of travelling which saves on time of the customers. Dr. S. M. Yamuna, R Vijayalakshmi, K Jeeva Mani, D Boopathi, P Ranjith Kumar (2019) argues that taxi industry revenues are gradually declining in Indian Society. Cab Service user's attitude are changing consistently and expecting many more add on benefits in future. Dr. P. Kishore Kumar, Dr. N. Ramesh Kumar (2016) talks about the rigorous competition in the organised cab services there is a need to attract customers through coupons and help the customers to take advantage of such offers when they are searching the call taxi service providers. Zhi-gang Yao Xiao-dong Ding (2011) talks about the cab service quality guidelines adherence to drive out the customer pleasure while hiring such cab services. Ge Zhang, Liang Ma and Xin Zhang (2017) gives an inside view for convenience, apparent utility, confidentiality of the customers to be conserved and faith on the rental service providers has an impact on the customer endorsing others for rental taxi services. Kiran Sharma & Saptarshi Das (2017) give more importance to the somatic amenities, paraphernalia, published and visual resources are an important aspect which plays a very important part in deriving pleasure for the customer's rearing to go for online rental car services. To appeal to the people who are intending to hire the cabs the service providers of such cab services should have state of the art in technology, attractive and pleasing somatic facilities inside the vehicle and neatly and smart outfit taxi drivers.

CUSTOMER PERCEPTION TOWARDS CALL TAXI SERVICES:

Waiting Time: with apps the time taken by the service providers to reach the pickup point is reducing and the waiting time is decreasing.

Cleanliness of The Cab: As the call taxi services keep their cabs clean it gives a wow moment to the customers to travel.

Driver's knowledge in Road Skills: Saves time of travel as the drivers use GPS locations to reach to the destinations.

Payment Options: Digital payments allows the use and connect of their net banking accounts and make payments which is hassle free and is done in no

time.

Security: The security provided allows the users to go for these services.

Rewards: Discounts, rewards and cash back are offered by the providers.

STUDY OBJECTIVES:

- To know the concept of waiting time its impact and importance and ease with the respect to the demographics factors
- To know the consumers awareness with respect to cleanliness, drivers knowledge with respect to the demographics factors
- To assess the customer trust & confidence and safety of the customers with respect to the demographic factors.
- To ascertain the influence of rewards on the customers as per the demographic factors.

DEVELOPMENT OF HYPOTHESIS:

India is the second largest country with respect to the population in the world and for such big nation transportation plays an important part in the day-to-day life of the people. In terms of this the demographic factors such as age, gender, marital status, education, income, occupation, family size become important. These demographics factors have a severe impact on the business in India, and taking these factors into consideration the following hypothesis has been framed.

H01: There is no substantial disagreement in perception from the survey participants for several traits of call taxi services for demographic factor such as sex of the participants.

H02: There is no substantial disagreement in perception from the survey participants for several traits of call taxi services for demographic factor such as age of the participants.

H03: There is no substantial disagreement in perception from the survey participants for several traits of call taxi services for demographic factor such as marital status of the participants.

H04: There is no substantial disagreement in perception from the survey participants for several traits of call taxi services for demographic factor such as education of the participants.

H05: There is no substantial disagreement in perception from the survey participants for several traits of call taxi services for demographic factor such as occupation of the participants.

H06: There is no substantial disagreement in perception from the survey participants for several traits of call taxi services for demographic factor such as income of the participants.

RESEARCH METHODOLOGY:

The current research is built on the primary data source and the data consists of 224 people responses collected within the boundaries of Nagpur district. A set of pre-defined questions intended towards to the study perception of customers towards call taxi services. 5 point Likert scale is used to gather the answers from the respondent where 5 – Strongly Agree, 4- Agree, 3- Neutral, 2- Dis-Agree and 1-Strongly Agree.

Sampling Unit: Customers using call taxi services were chosen as a sample

unit.

Sample Size: A sample size of 224 was taken for this research work.

Convenience sampling method was used to collect data. The respondents were asked pre-defined questions as listed in the questionnaire. Any question which needed clarification was explained to the respondents and there was no bias in collection of the responses from the respondents.

STATISTICAL TOOLS USED:

Statistical tools used to study are ANOVA and Frequency Analysis. To know whether the data collected through survey is reliable or not Cronbach’s Alpha test is used. To perform statistical analysis SPSS is been used and for hypothesis testing ANOVA is used.

Figure 1: Demographic parameters of the Respondent

Variable	Individualities	Occurrence	Percentage
Gender	Male	155	69
	Female	69	31
Age Group	18-25	26	12
	25-35	19	8
	35-45	48	21
	45 - 55	71	32
	55 Above	60	27
Education	SSC	9	4
	HSC	66	29
	Graduate	102	46
	Post Graduate	47	21
Occupation	Student	8	4
	Salaried	139	62
	Self employed	57	25
	Not working	20	9
Yearly Income	Upto Rs. 250000	60	27
	Rs. 250000-500000	56	25
	Rs. 500000-750000	74	33
	Above Rs. 750000	34	15
Marital Status	Married	183	82
	Not Married	41	18

The above table 1 is the sample population who is using call taxi services for transportation means. 69% of the respondents are male as compared to females who are 31%. If we look into the occupation part 87% of the sample population is salaried class is the combination of people working in private sector as well as government class where 46% of them are graduate and 21% are post graduate level sample and 80% of them are above 35 years of age with 48% of the sample is earning more than 250000 to 750000 rupees a year which is an ideal combination of the people who are using call taxi services.

TEST OF RELIABILITY OF DATA:

The below Figure 2 displays the outcome of Cronbachs Alpha test and the accepted result is generally 0.7 (70%) and in this case the score was 0.862 (86.2%) for perception of call taxi services used by the respondents which shows that the data is reliable and test could be performed.

Reliability

Scale: ALL VARIABLES

Case Processing Summary			
		N	%
Cases	Valid	224	97.4
	Excluded ^a	6	2.6
	Total	230	100.0

Reliability Statistics	
Cronbach's Alpha	Number of Items
.862	22

TESTING OF HYPOTHESIS:

ANOVA is used for hypothesis testing. Figure 3 below shows the testing of hypothesis with respect to sex, age, education, occupation and income for the survey participants.

Table 3: ANOVA Calculation

Particular	Gender		Age		Marital Status		Occupation		Education		Income	
	F	Sign.	F	Sign.	F	Sign.	F	Sign.	F	Sign.	F	Sign.
Average waiting time	2.799	0.027	2.086	0.084	0.951	0.435	19.008	0	13.418	0	21.018	0
Cleanliness of the cab	3.163	0.015	1.789	0.132	0.868	0.484	13.853	0	9.434	0	15.407	0
Provision of First aid Kit	0.347	0.846	1.252	0.29	1.865	0.118	1.338	0.257	0.597	0.665	1.182	0.32
Drivers knowledge in Road skills	2.5	0.044	2.531	0.041	1.959	0.102	4.893	0.001	6.478	0	1.783	0.133
Driver obeying traffic rules	3.403	0.01	5.174	0.001	0.109	0.979	14.007	0	5.044	0.001	11.751	0
Driver's behavior in professional manner	3.287	0.012	2.218	0.068	0.578	0.679	8.426	0	5.429	0	3.989	0.004
Driver have to be in pleasing manner	1.264	0.285	3.99	0.004	0.411	0.8	13.39	0	7.676	0	14.002	0
Usage of GPS by driver	2.799	0.027	2.086	0.084	0.951	0.435	19.008	0	13.438	0	21.028	0
Different types of car	3.937	0.004	2.98	0.02	0.426	0.789	12.31	0	7.065	0	10.383	0

Application connectivity	0.045	0.833	0.013	0.91	6.425	0.012	2.151	0.144	0.707	0.401	0.382	0.537
Providing Wi-Fi facility in all cabs	0.347	0.846	1.252	0.29	1.865	0.118	1.338	0.257	0.597	0.665	1.182	0.32
Making payment through cash	2.5	0.044	2.531	0.041	1.959	0.102	4.893	0.001	6.478	0	1.783	0.133
Making payment through Credit Card	0.3403	0.01	5.174	0.001	0.109	0.979	14.007	0	5.004	0.001	11.751	0
Making payment through Mobile Wallet	3.287	0.012	2.218	0.068	0.578	0.679	8.426	0	5.429	0	3.989	0.004
Convenient facilities for pre-booking	1.264	0.285	3.99	0.004	0.411	0.8	13.39	0	7.676	0	14.002	0
Difficulty for Non smartphone users	0.2799	0.027	2.086	0.084	0.951	0.435	19.008	0	13.418	0	21.018	0

Hypothesis is tested with respect to the demographic parameters. The result of ANOVA reflects a substantial dissimilarity for attributes for rental car services with respect to the gender i.e. for male and females so here we reject the Null hypothesis H01. Similarly the further computation of ANOVA does not show a significant difference with respect to age so here we accept the null hypothesis H02. The computation of ANOVA for the demographic of marital status shows that there is no significant difference so here we accept the Null Hypothesis H03. With respect to the demographic factors of occupation, education and income there is a significant difference so we reject the null hypothesis H04, H05 and H06.

FREQUENCY ANALYSIS:

To assess the participant’s opinions and his agreement in terms of satisfaction a frequency analysis is conducted on the data that was collected through survey of 224 respondents from different age group, gender, occupation, education and income level.

To support the satisfaction and perception of the respondents who strongly agree and agree are the supporting responses and responses who have strongly disagreed of disagree are least important and neither the responses that have shown neutral behaviour.

Table 4 Showing Frequency Analysis

Attributes	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Average waiting time	27	47	59	81	10

Cleanliness of the cab	19	48	59	88	10
Provision of First aid Kit	42	126	40	14	2
Drivers knowledge in Road skills	38	98	48	27	13
Driver obeying traffic rules	43	57	66	32	26
Driver's behavior in professional manner	60	50	53	43	18
Driver have to be in pleasing manner	32	47	63	67	15
Usage of GPS by driver	27	47	59	81	10
Different types of car	32	39	60	66	27
App connectivity	0	0	0	34	190
Providing Wi-Fi facility in all cabs	42	126	40	14	2
Making payment through cash	38	98	48	27	13
Making payment through Credit Card	44	57	65	32	26
Making payment through Mobile Wallet	60	50	53	43	18
Convenient facilities for pre-booking	32	36	68	69	19
Difficulty for Non smartphone users	27	50	50	84	13

As seen in the above table majority of the respondents believe that call taxi services is a good idea as it is a useful mode of transportation. Majority of the respondent think that the apps connectivity is not as friendly as they at times find it hard to operate.

CONCLUSION:

The current study was an attempt to analyse how the demographic parameters have an effect on the various attributes when it comes to call taxi services in Tier – 2 cities like Nagpur. Hypotheses were framed and these hypotheses were tested using ANOVA and it became very clear that there is a significant difference perceived by the participants with respect to age, occupation, education and income. When it comes to gender and marital status there is no substantial disagreement in perception of the participants. Today also the customers are looking for a safe and on time journey and want payment system to be friendly and cards should be used for payments. For non-users of smart phone there is a need to find out an alternate way to bring them within the reach by providing those options where they can book a taxi even if they are not using any smartphones. The customers are looking for those call taxi service providers who are providing them with rewards and discounts. The mode of travelling within the city has been changing and call taxi services plays an important part in this. The reach of the call taxi services is increasing and will have a major share in coming year.

FUTURE SCOPE OF THE STUDY:

Further study can be conducted on the initiatives and marketing strategies taken to boost the transportation mode and the transparency maintained to capture the market.

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