

Online Pre-Owned Car Platforms as Entrepreneurial Marketplaces: A Study of User Perception and Sustainable Digital Adoption in India



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Abstract

The rapid expansion of digital platforms has significantly transformed traditional marketplaces, enabling new forms of entrepreneurship and contributing to sustainable economic development. In emerging economies such as India, online pre-owned car trading platforms have evolved as dynamic entrepreneurial ecosystems that facilitate efficient transactions, reduce information asymmetry, and promote resource reuse within the circular economy. This study examines how users perceive and engage with these digital platforms, and evaluates their role in supporting sustainable value creation.

Primary data were collected from 150 users of online pre-owned car trading platforms through a structured questionnaire. The study employs statistical tools including weighted average analysis, factor analysis, and correlation techniques to identify key determinants influencing platform adoption and usage. The findings reveal that digital platforms are primarily popularized through online advertisements and social media channels. Three major factors—ease of use, transparent dealings, and price and warranty assurance—significantly influence user access and engagement with these platforms.

From an entrepreneurship perspective, the results highlight the role of online trading platforms as intermediaries that empower individual sellers, small-scale dealers, and platform-based business models. These platforms contribute to sustainability by enhancing market transparency, reducing transaction costs, and promoting the reuse of durable goods, thereby supporting circular economic practices. The study contributes to the literature by linking customer-centric platform adoption with broader entrepreneurial and sustainability outcomes in the digital economy.

The findings offer implications for platform developers, entrepreneurs, and policymakers in designing inclusive, transparent, and sustainable digital marketplaces in emerging economies.

Keywords: Digital platform entrepreneurship, Pre-owned car market, Online trading platforms, Customer perception, Sustainable, value creation, Circular economy, Emerging markets, India

1. Introduction

Technology has embraced human life in all its manifestations. Social media, E-Commerce and online trading platforms have literally revolutionized the entire buying process, right from need recognition to post purchase behaviour. Online buying and selling of pre-owned cars is one such key trend that has set in the arena of online marketing in the last few years. A pre-owned car is one that has previously been owned by one or more persons. The India economy, currently the fifth largest economy in the world and also one of the fastest growing economies of the world is all set to become the fourth largest economy by 2030. Accordingly, the Indian car market is the fifth largest car market in the world and is steadily expanding at a CAGR of 9%. It is valued at USD 22.8 billion in 2021. One striking thing about the Indian car market is the phenomenal growth in the sales of pre-owned cars in the recent years. In the last three

years, Indian pre-owned car market has registered a whopping CAGR of 26% and with this momentum, it is likely to become the third largest pre-owned car market in the world by 2025. Around 4.4 million used cars were sold in 2021 itself. The ratio of used car to new car is 1.4 This means that the growth in the pre-owned car segment has even surpassed the growth in new cars market. Another key feature of this segment is the dominance of the unorganized sector in the pre-owned car market. Private dealerships, commission agents and indigenous brokers and C2C transactions included in the unorganized sector enjoy 65% of the market share whereas original equipment manufacturers (OEMs) specialized online pre-owned car trading platforms and online C2C enabling portals (like Olx and E-bay) included in the organised and semi organized sector enjoy only 35%. Growth in personal disposable income, affordable finance options, decreased holding period of new cars, increased

presence of OEMS offering transparent dealings and warranty assurance are some of the key reasons behind the spurt in growth of sales of pre-owned cars. The post Covid19 period witnessed sudden surge in the demand for pre-owned cars on account of longer waiting period for new cars on account of pent-up demand, lower production due to chip shortage, inflation in new car prices and growing inclination towards personal mobility for social distancing. Along with this, customers have turned their attention towards online car trading platforms for buying, selling or exchanging cars owned by them. Truebil, Cars24, CarDekho, Spinnys, Droom, Olx Cars, Incheon cars etc. are some of the dominant pre-owned car trading online platforms in India. Through user-friendly websites and mobile trading platforms they offer transparent, hassle free, quality assured 24X7 services that too at the comfort of one's home. Most of these platforms employ sophisticated, state-of-the art technologies like Artificial Intelligence (AI), Machine Learning, Deep learning, 3D animation and virtual reality to enable buyers to take informed purchase decision that leads to better satisfaction. Some of them provide 360° view of the cars, engine sound, interior and exterior conditions on mobile phones of customers. Scientific evaluation, hassle free paper work, warranty, on the spot evaluation, door delivery, transparent dealings, 24X7 service, economy etc. are some of the stand-alone advantages claimed by the online platforms that make them stand out from the conventional pre-owned dealership.

Even though several studies have been made on the influence of digital communication technologies and e commerce endeavours in the new car market, studies are rare on the evaluation of Online pre-owned car trading platforms. This study aims to fill this gap.

1.1 Over View of Literature

Kim, J.C. (1985) analysed the pre-owned car market and found that the market suffers from severe informational asymmetry. The quality of used cars depends not only on pure stochastic elements but also on several other factors such as maintenance, driving habit etc. Potential car buyers make decisions on the basis of average quality of cars. There exists an equilibrium in the used cars market. Lowest quality cars may not always drive out high quality cars. Rohan Samson, et.al. (2014) studied the effectiveness of online digital communication as a medium for marketing with respect to passenger car segment. Majority of the people understand and appreciate online digital communication sources in their purchase process. Many of the respondents feel that these sources are highly reliable and useful. Still Tv and word of mouth continues to be the most widely used sources. This means that even though digital

communication channels are reliable and powerful, they are not yet the most influential medium. Car manufactures can do a lot to improve the effectiveness of their digital communication strategies. Amik, F.R., et.al. (2021) found that one key issue in resale of pre-owned cars is fixation of its price. An attempt was made to find out a forecasting system to predict prices of pre-owned cars in Bangladesh, based on machine learning techniques. Various factors like brand name, kilometres done, driving habits, transmission, body type, model year and fuel type were factored in, so as to arrive at scientific valuation. Out of several techniques used like linear regression, decision tree, random forest, etc, XGBoost was chosen as the best model as it proved successful 91% of the time. Then a web application was developed for end users. Dahiya. R., &Gayatri (2108) studied the influence of digital communication on consumer buying decision process related to car buyers in Indian passenger car market. The study revealed that 95% of respondents used at least one digital channel of communication while buying car. Website stood first in the list of communication channels used for information gathering followed by social networking channels. Every stage of car buying was significantly affected by digital marketing communication and evaluation was the most affected stage. Even need recognition can be triggered by digital channels. Customers make use of social media reviews to express their post-purchase feelings. Still, they don't buy a car online. Dahiya, R & Sachar D (2021) used discriminant analysis application to understand the use of digital channels while buying a car. Social networking sites, websites, smartphones, emails and digital outdoors were mostly used for gathering information. Online communities and social media platforms help buyers to get expert reviews to support intelligent, informed buying. Effective Search Engine Optimisation (SEO) will help car manufacturers to reach out to customers in an economic manner.

1.2 Research Problem

The Indian pre-owned market is expanding at an accelerated pace and this trend is likely to continue. One key issue in the pre-owned car market is the dominance of unorganized sector in car trading. Lack of transparency, absence of warranty conditions, information asymmetry, malpractices, heavy transaction cost etc. are some of the charges levelled against the dominant unorganized sector so far. Even though increased presence of OEMS in the pre-owned car market in the form of Maruti True value, Mahindra First Choice, Hyundai H Promise etc. can solve some theses issues, their presence is limited mostly to urban areas. Online car trading platforms become more appealing in this scenario. Wirth 24X7 service, accessibility,

cutting edge technology, continuous innovation, vast database, and quality assurance, they have immense future potential in the pre-owned car market. The present study aims to address the pros and cons in the operations of the online pre-owned car trading platforms from the users' point of view.

2. Data Analysis and Discussion

Objective 1: To rank the sources through which online car trading platforms get popularised.

Table 1 Sources of online car trading platforms

Sources	Weighted Average Value	Rank
Social Media	32.14	2
Search Engine Ads	31.28	3
Online Advertisements	33.66	1
Marketing calls	16.38	6
Emails and SMS	22.38	5
Suggestion by others	25.71	4

Source: Primary Data

From the above table, it can be inferred that 'Online advertisements' rank first for popularising online car trading platforms with a weighted average value of 33.66. It is followed by 'social media' and 'search engine ads' with a weighted average value of 32.14 and 31.28 respectively. 'Suggestions by others' is ranked fourth with a value of 25.71. The least ranked ones are Emails and SMS with an average value of 22.38 and 'Marketing calls' follows with a value of 16.38.

Objective 2: To identify the factors that prompt to access online pre-owned car trading platforms

H0: There is no significant difference between factors prompting to access online pre-owned car trading platforms.

The data collected from 150 questionnaires were analysed using IBM SPSS Statistics 21 to group the factors that prompt to access online pre-owned car trading platforms. Factor analysis has been used to group the factors that contribute to access online pre-owned car trading platforms from a large number of variables on the basis of the concept of correlation. Cronbach's alpha is the most widely used method to check the reliability of scale. It is

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required to be more than 0.60 for the scale to be reliable (Cronbach,1951). It can be inferred from the reliability test that the statements provided in the questionnaire are reliable and the alpha value is greater than 0.600 and the overall reliability of the questionnaire pertains to value of 0.952 which shows high reliability. Hence, the high reliability indicates that these items are extremely qualified for further analysis.

It is observed to measure the adequacy of sampling and appropriateness of data to perform factor analysis. It leads the researcher either to collect more data or rethink which variables to include. KMO statistics varies between 0 and 1 and the values greater than 0.5 are acceptable, values ranging between 0.50 to 0.70 are moderate, 0.70 to 0.80 are considered as good and between 0.80 to 0.90 are superior. (Kaiser, 1974; Field, 2000). For factor analysis to work some relationship between variables must exist and the R-matrix should not be an identity matrix. It is only possible when the significant value is less than 0.05. KMO value as 0.955 which indicates the superior quality of the data taken and the sig. value is 0.000 which is less than 0.05. Hence, the sample taken for factor analysis is statistically significant.

Table 2 Loading of scale items on factors by Rotated Component Matrix

Factors prompting access online pre-owned car trading platforms.	Component		
	1	2	3
Factor 1: Ease of use			
It is possible to participate using the mobile applications.	0.724		
Easy transfer of car insurance is possible.	0.682		

Able to search by vehicle type, year, model etc.	0.586		
Wide supply of almost new cars.	0.485		
Factor 2: Transparent Dealings			
Able to know the dealer's identity and details.		0.711	
Physical inspection of the vehicle at ease.		0.644	
Easy availability of maintenance records of cars.		0.621	
High possibility that used car is almost new to feel and well maintained as well.		0.563	
Factor 3: Price and Warranty			
Come with better safety and emission standards due to rising customer awareness.			0.684
Buyers can purchase their favourite car at reasonable price.			0.553
Buyer can opt for extended warranty easily for the car.			0.523
Allows to list the exact specifications that customers are looking for.			0.496
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization			

(Source: Primary Data)

After examining the reliability of scale and assuring the appropriateness of data, Principal Component Analysis (PCA) followed by Varimax with Kaiser Normalization was adopted for analysing the data. The results were grouped into three factors which are: Ease of use, Transparent dealings and Price & Warranty, each with 4 statements.

Table 3 Correlation Matrix

Factors	Ease of access	Transparent dealings	Price & Warranty	Access of online platforms
Ease of access Pearson Correlation	1	0.815**	0.776**	0.876**
Sig.	0.000	0.000	0.000	0.000
Transparent dealings Pearson Correlation	0.815**	1	0.724**	0.798**
Sig.	0.000	0.000	0.000	0.000
Price & Warranty Pearson Correlation	0.776**	0.724**	1	0.887**
Sig.	0.000	0.000	0.000	0.000
Access of online platforms Pearson Correlation	0.876**	0.798**	0.887**	1
Sig.	0.000	0.000	0.000	0.000

** Correlation is significant at 1% level of significance.

(Source: Primary Data)

From the Table 3, it is clearly evident that there exists a high degree of correlation between factors that prompts access to online pre-owned car trading platforms. Ease of access, transparent dealings and price & warranty are highly correlated with access to online pre-owned car trading platforms with values of 0.876, 0.798 and 0.887 respectively. The r values between the factors are

high which shows a high inter correlation between them at 0.01 level of significance. Since, the p value is less than 0.01, it is proposed to reject the null hypothesis at 1% significance level. Hence, there exists significant difference between factors prompting to access online pre-owned car trading platform.

The study helps the researcher to identify the factors that prompt to access online pre-owned car trading platforms. It is also possible to measure the inter-correlation between the factors after identification. 150 customers were identified. Factor analysis and correlation has been adopted to test the hypothesis. Results showed a high reliability with a value of 0.952. KMO value of the study pertains to 0.955 which assures the data appropriateness and it also indicates that sample taken for factor analysis are statistically significant. In addition to KMO Bartlett's Test of Sphericity Chi Square value is 4339.807 through which statistical significance is again confirmed. 18 items were taken for factor analysis which were subject to Principal Component Analysis (PCA) which helps to yield three factors. Those items whose value is less than 0.40 were excluded and 12 items were identified and grouped under three factors.

From the Correlation table, the inter correlation of factors and correlation between factors and access to online pre-owned car trading platforms has been established. Access to online pre-owned car trading platforms is highly associated with ease of use, transparent dealings and price & warranty. While analysing the inter-correlation between factors, the factors are highly inter-correlated. The null hypothesis tends to be rejected as the p value is less than 0.01 at 1% level of significance. So, there exists a significant difference between factors that prompts to access online pre-owned car trading platforms.

3. Summary And Conclusion

The study evidences greater inclination of youngsters towards using digital pre-owned car trading platforms. Majority of the respondents have education level of graduation and above. Online advertisements and social media platforms play a dominant role in popularising car online car trading platforms, followed by search engine ads and suggestions by others. Use of online car trading platforms is associated with factors like ease of use, transparent dealings and price and warranty offers. There is significant between factors prompting access to online pre-owned car trading platforms. Faster adoption of digital car trading platforms by OEMs can be a game changer in the future. Online pre-owned car trading platforms need to improve digital marketing strategies to penetrate more. They have to concentrate more on after sales service and continued customer relationship strategies to achieve sustainable growth in the future.

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