



Taxi Driver's Perception Towards Taxi Management in Kathmandu Valley: A Structural Equation Model Analysis

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Abstract

Taxi drivers around the world operate in a mobile environment that challenges the traditional concept of the workplace. They play a vital role in enabling us to reach our destination with ease, security, and time-saving benefits. Therefore, transportation is considered as one of the five crucial infrastructure facilities for the development of a country. The current study aims to analyze the factors that determine taxi drivers' views about taxi management in Kathmandu Valley, Nepal. The results, obtained through Structural Equation Modeling (SEM), reveal five constructs fitting within the model. The findings conclude that accessibility, convenience, price, and intention to use taxi management are significantly related to each other. This indicates that all four variables significantly influence taxi drivers' views about taxi management. As a result, this study suggests that the taxi industry must adapt to taxi management practices to enhance customer engagement.

Keywords: taxi management, Structural Equation Modeling, taxi driver's views, readiness on taxi management.

Introduction

Due to the rapid urbanization, most of the population now resides in medium or large towns. The need for mobility is constantly increasing as the resources are limited. In such a situation it is important to maximize the use of resources (Król & Król, 2019). This also refers to taxi management systems, which are an integral part of the modern city's sustainable transport infrastructure. Mass public transport has been the subject of focus for many years with its drawbacks such as inflexibility, long total travel time, overcrowding and inadequate service coverage alongside environmental impacts. This conversely means that the taxi industry could play a major role in solving the transport problem (Oliver, 2013). Taxis provide timely, door-to-door, safe and convenient maneuvering service providing broad city coverage throughout the day, and are now becoming an inevitable part of any big city's commuting system. Despite the higher travel costs, the above advantages cannot be undermined (Flores-Sanchez et al., 2011).

The trend in taxi usage highlights the problem of timely availability. Passengers face a waiting time of over few minutes within the limits of hectic work schedule (Cervero & Golub, 2007). Taxi companies are, therefore, actively working to improve the vehicle allocation system so that taxis can drive the shortest possible route by ferrying as many passengers as possible. Increasing the size of taxis rolling stock tends to be another optimal solution to enhance the service level. On the downside, it leads to increased road traffic and vehicular congestion (Delli Carpini, 2000). Profitability from operations is also necessary for taxi companies and individual taxi drivers. The time that an unoccupied taxi travels cannot be too long to ensure a sufficient income level. Gestation period between leaving one passenger and the successive ride cannot be substantial for cost saving (Jack Elzinga, Horak, Lee, & Bruner, 1995). Therefore, for any taxi company, the issue of deciding an appropriate number of taxis at disposal seems to be crucial. This arises an innate trade-off between the passengers waiting for a taxi and the income earned (Król & Król, 2019).

Taxi drivers across the world operate in a mobile environment that challenges the traditional concept of the workplace (Facey, 2010; Sciences, 2014). Transportation is not limited to be a medium of travel from one place to another. Historically, countries with the development of transportation system have witnessed huge impact in their economic progress (Fararo, 2007). Therefore, transportation is considered as one amongst five infrastructures necessary for the development of a country.

Influence of computer technology on transportation is also vital. It has widely impacted several areas of business management with the continuous development of computer technology and growth of information (Joseph, 2016). Transportation is an important economic and social development infrastructure. With the rapid growth of the national economy and continuous improvement of the transport infrastructure as well as the rapid development of the transport industry, scientific management of transport flow has taken the central stage (Lumsdon, 2000). Transportation industry systems are being designed around record handling, demand and supply mismatch and revenue-expense management (Martinez & Viegas, 2017). These information management systems can minimize the waste of human resources and economize on the existing resource capacity by creating advantages for further improvement in quality of job services (Zhou, Huang, Sun, & Chen, 2002).

Taxi drivers perform a strategic role in night time transportation and in managing public transport disorder (Denscombe, Dingwall, & Hillier, 2009). Every person in the country is immensely affected by the taxi management in some way or the other. Taxi management in the valley basically means the proper organization in the road transportation system (Logan & Molotch, 2013). To be specific, taxi management means the utilization of limited resources in a sustainable manner to bring proper procedures in the transportation management sector such that all available resources

are used effectively and efficiently (Wong & Evers, 2010). The consequences of transportation mismanagement results in excessive use of resources, increase in accidents, traffic jams, environmental, and noise pollution. Hence, it is very much significant to learn about the needs of traffic management in Kathmandu valley (Newman & Kenworthy, 1996). There are multiple fatal accidents occurring in different places due to mismanagement of transportation. Traffic jam is one of the most controversial issues in the city, which is largely due to taxi mismanagement (Papadimitratos et al., 2009). When transportation system is managed and organized, this will impact upon the people's life and their tasks. When resources are utilized in a planned way, it consequently saves time and investment done for transportation management. In this manner, transportation management can impact directly on the lives of people and the growing population of the valley (Huneke, 2010). We all know that the population pressure on the road is increasing day by day and it is certain that matters will get worse in the future, affecting the daily lives of people. Hence, this study tries to examine the factors determining taxi driver's view about taxi management, the challenges they have faced to mitigation approaches for taxi management.

The remaining part of the study is organized in 5 sections. The next section is methodology of the study, that will highlight conceptual framework, hypothesis formulation, variable and its definition, study area, research instrument. Further, sections will make a discussion on result and conclusion.

Methodology

Taxi Management is affected by large number of perceptive variables such as perceived safety, perceived accessibility, perceived convenience and perceived price. These phenomena can be analyzed into five theoretical approaches: Central Place approach, Dempster Shafer approach, The Theory of Planned Behavior, Traffic approach and Two-Sided Market approach.

In the central location theory, the word the "central place" should be "city center" which explains the central place's ability to control a certain percentage of the market, how settlements are positioned in relation to one another, and why certain central locations serve as hamlets, villages, towns, or cities are all explained by the central-place theory. Furthermore, villages, towns, and cities, as well as connected market regions and transportation problems, remain the major conceptions of the central location. These include the city's full amenities, linked market areas, and transportation routes (Getis & Getis, 2014).

The Dempster-Shafer concept, moreover, appeared as the concept of perception functions, is a generalization of the Bayesian precept of subjective probability (Rombaut & Min Zhu, 2002). When the Bayesian idea requires probabilities for each query of hobby, belief functions allow us to base levels of belief for one question on possibilities for an associated query. Enforcing the Dempster-Shafer precept in a specific problem normally entails solving two associated issues. First, we have to sort the uncertainties within the trouble into a priori unbiased items of evidence. Secondly, we have to enhance out Dempster's rule computationally.

Additionally, theory of Planned Behavior (TPB) describe and evaluate the theory of intentional behavior (Lam & Hsu, 2004) which furthermore deals with the individual intention- attitude and subjective norms where the attitude towards the behavior is the individual's positive or negative evaluation of performing the behavior (Ajzen, 1991; Lortie & Castogiovanni, 2015; Heath & Gifford, 2002). Thus, TPB is applicable for this study as it helps to understand the taxi drivers' intention, attitude and subjective norms regarding taxi management. Likewise, traffic theory explains the probabilistic nature of dual carriageway potential in free glide is linked to an occurrence of the first order nearby section transition from the traffic segment "free flow" to the traffic section "synchronized flow". Likewise, when one or more structures enable end-user engagement and "onboard" two sides by fairly charging each side, the market is said to be two-

sided (or typically multidimensional) (Rochet & Tirole, 2004a). A more useful definition would need to distinguish between a charge level, defined as the total charge imposed on both sides using the platform, and a price structure that refers to the disaggregation or distribution of the total charge between buyers and the vendors (Rochet & Tirole, 2006). In many industries, two or more facets that interact with each other using a platform are structured (Rothblum, 1992).

Conceptual Framework

According to Berry et al. (2002), time and effort determine the convenience of a product or service. A product or service is considered convenient when it saves time for users. Kiboma (2019) states that there are five dimensions of the convenience of a product or service, namely time, place, use, acquisition, and execution. Convenience can also be defined as the perceived time and energy taken to achieve a task goal. In the sharing economy, perceived convenience is an important factor influencing consumer behavior. Convenience affects shopping motivation, which acts as a determinant of consumers' intention to shop online (Bode, Jenssen, & Bandte, 1953). Perceived price and advantages refer to the prices that consumers are willing to pay for particular products or services based on their perception towards them (Martín-Consuegra, Molina, & Esteban, 2007). Price is a vital indicator that affects affordability in relation to the fares charged and the service provided in the transportation industry (Gabrielsson et al., 2016).

Rates charged may vary from city to city. Normally, taxi fare is higher compared to public transportation (Goyal et al., 2016). Gabel (2016) states that the rates for a public bus is less than the taxi fare even when the charge is higher during high demand periods. 'Surge pricing' will prevail during peak demand for taxi rides on the customer. Surge pricing arises when the customers are being charged a higher fare due to peak demand (Talib & Saleh, 2018). Mohamad et al. (2016) mentioned a fallout from a taxi service's surge pricing strategy that happened in March 2014. The "Surge Drop" notice has been put in place. Its purpose is to notify users anytime prices in their vicinity or area reduce. Geradi and Geradin (2015) have conducted a research in Europe and noted that urban taxi rates are much more reasonable compared to traditional taxi. Budget travelers and backpacker try to economise on cost and time simultaneously. Since taxi reaches its destination faster than public bus, taxi becomes a preferred choice for customers to commute (Mohamad et al., 2016).

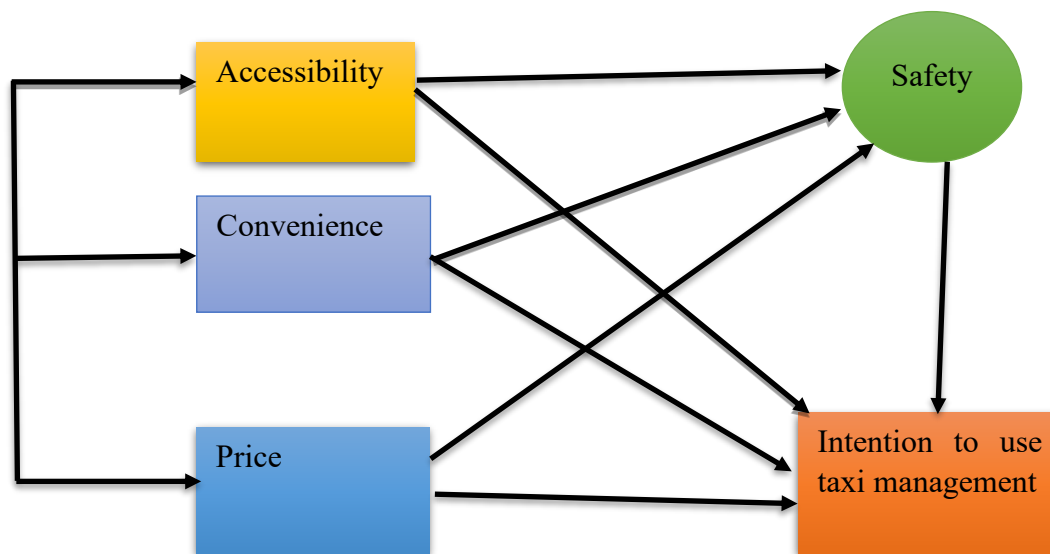
The presence of taxi (also referred to as urban taxi) in the city has prompted a great concern over the increase in traffic congestion. Even though several studies have deeply investigated this issue, yet the outcomes of these studies are convoluted. However Li, Hong, & Zhang (2016) have executed an experiment and found that the entry of taxi in urban areas actually leads to a substantial reduction in carbon dioxide emission and traffic jam. In a similar research, further proof that taxi can be a resolution to reduce the problem regarding traffic congestion in the city areas is also found (Mohamad et al., 2016). Alley (2016) reveals that other than the growing number of pickups, taxi can offer rides to places that are difficult for the bus to reach where taxi service can aid travelers through ease of access to the particular travel destination in urban area.

Moreover, Mohamad et al. (2016) state that compared to the waiting and hailing times for taxi, bus rides took longer time than taxi. According to Talib and Saleh (2018) waiting time was the second most common reasons for customer to use taxi after ease of payment. Studies also find that waiting time for automobile is influenced by travel speed and the length distance between current location of the driver and the pick-up location (Hughes & MacKenzie, 2016). However, most of the studies conclude that taxi service will not only save one's money but it also can save time (Ubaidillah et al., 2019). Using taxi can reduce waiting time as taxis offer flexibility in relation to traveler's itinerary, which bus and trains do not. In addition, the possibility of getting lost among the travelers

can be avoided as the taxi drivers are from the local area and indirectly act as their travel guides (Mohamad et al., 2016).

Taxi is user-friendly and it can transmit the information regarding the location of the car requested, along with the capability to track its ongoing progress by using smartphone. By requesting a ride using taxi app, the passenger can monitor the progress of the taxi car via smartphone instead of waiting for traditional taxi and wondering when it will reach the destination (Gyódi, 2017). Shokoohyar (2018) reports that customers must set their current location for the taxi-cab to reach the pickup point, the set location can be accessed by customers and driver along with the expected time arrival at the stated destination.

Figure 1
Conceptual Framework



Source: Adapted from Mohamad et al. (2016)

The figure 1 indicates the various factors for understanding the taxi driver's perception on taxi management. The variables for the study are developed considering perceived safety as moderate variable and perceived convenience, perceived price, perceived accessibility as the independent variables that are necessary for taxi management. The model explains about the independent variables that can impact the intended use of taxi management. It shows that the perceived accessibility, perceived convenience and perceived price are relevant for dependent variables (that is intention to use taxi management) that can help understand the taxi driver's views about taxi management.

Safety and Intention to Use Taxi Management

Factor that is measured by customers while riding a taxi is safety. Safety check is the most significant factor that can interest customers to choose Taxi service. Rules and regulations are all set in order to confirm the safety of customers which clarifies drivers must possess a valid driving license, and must also clarify drivers' inspection. Moreover, the driver must verify certificate liability insurance and the most vital aspect is there is no criminal record (Ngo, 2015).

H01: There is a significant relation between safety and intention to use taxi management.

Accessibility and Intention to Use Taxi Management

Taxi is the most common service and it supports transportation service. Customers share the details of pick-up and destination points which is accessible to the taxi drivers. The travellers are also able to assess the expected time of arrival along with overall travel time. The ease of access thus provided enables customers to opt for such services on a regular basis (Woo & Bales, 2017).

H02: There is a significant relation between accessibility and intention to use taxi management.

H03: There is a significant relation between accessibility and safety.

Convenience Intention to Use Taxi Management

Taxi can offer rides to places that are tough for the public transportation to reach. Taxis can also help in resolving the problem of traffic congestion and city overcrowding in the busy areas. Using Taxi can decrease waiting time as the traveler's route differs from buses which are not flexible. Taxi drivers are from the resident area and indirectly act as their travel guides (Carranza et al., 2016).

H04: There is a significant relation between convenience and safety.

H05: There is a significant relation between convenience and intention to use taxi management.

Price Intention to use Taxi Management

Rates charged may vary from city to city. Normally, taxi fare is higher compared to buses. In order to minimize the travel cost, customers consider the price offered. Public Transportation offers lower rates compared to the rates offered by a taxi (Goyal et al., 2016). Moreover, drunk accidents are decreased by taxi services where customers of the taxi service can choose between paying with cash or mobile banking. Prior to making their request, they must select their preferred payment method. Paying with a credit card is safer than paying with cash. The benefit for travelers is that they may avoid paying the driver more money.

H06: There is a significant relation between price and safety.

H07: There is a significant relation between price and intention to use taxi management.

Intention to Use Taxi Management

Taxi service is a new technological revolution in transportation industry that attaches the drivers and the passenger. Taxi delivers better service than bus service with faster trip time and lesser waiting time which are convenient and are also differently-abled friendly. Taxi service is continuously on demand for its readiness and accessibility since technology advancement makes them possible (Keong, 2015). In summary, consumers' intents to use a taxi were most influenced by its reduced cost, availability, and convenience, as well as by its advanced technology, quick waiting time, and capacity to relieve traffic congestion. Price, safety, convenience, and accessibility are some of the variables this study suggests have a direct impact on a customer's inclination to use a taxi service.

Variable Construct

In this section, the variables used for the study are recognized and defined. Above hypotheses are set based on five latent constructs which are used in the study. These latent constructs are safety, accessibility, convenience, price and intention.

Table 1
Variable Definitions

Construct	Variable	Definition
Safety	1. Safety	The circumstance of being covered from or not likely to reason danger, risk, or injury.
	2. Management	The system of coping with or controlling things or people.
	3. Vehicle's	A thing used for transporting humans or goods, mainly on land, consisting of a car, lorry, or cart.
	4. Management System	A management system is a set of regulations, strategies and processes used by an agency to ensure that it can satisfy the responsibilities required to obtain its targets.
	5. Speed Limit	The maximum legally permitted speed at which an automobile can travel on certain roads.
Accessibility	1. Experience	An event or occurrence which leaves an impression on someone.
	2. Time	The indefinite continued progress of existence and events in the past, present, and future regarded as a whole.
	3. Traffic rules	Traffic rules are the rules given by traffic police for the protection or for the safe driving which can prevent accidents.
	4. Autonomous	Having the freedom to govern itself or control its own affairs.
	5. Concerns	A matter of interest or importance to someone.
Convenience	1. Fit and Healthy	In a good physical or mental condition.
	2. Asleep	In a state of sleep.
	3. Rest	To be placed or supported so as to stay in a specified position.
	4. Fitness training	Activity requiring physical effort, carried out to sustain or improve health and fitness.
Price	1. Fare	The money paid for a journey on public transport.
	2. Sustainable	Able to be maintained at a certain rate or level.
	3. Suitable	Right or appropriate for a particular person, purpose, or situation.
	4. Financial Pressure	It may relate to debts you are facing now, or financial concerns you have about the future.
	5. Allowance	The amount of something that is permitted, especially within a set of regulations or for a specified purpose.
Intention	Plan	A detailed proposal for doing or achieving something.
	Services	The action of helping or doing work for someone.
	Online Platform	Online Platform means a public-facing Internet Web site.
	Customer	A person who buys goods or services from a shop or business.
	Environmental	Relating to the natural world and the impact of human activity on its condition.

Study Area, Population and Sample size

The study uses an explanatory research design. Kathmandu valley of Nepal is selected as the study area for this research. Three districts within the Kathmandu valley (namely Kathmandu, Bhaktapur and Lalitpur) were selected for this research. The range of Kathmandu valley is 27°32'13" and 27°49'10" north and longitudes are 85°11'31" and 85°31'38" east (Mohanty et al., 2011). Being the capital region, Kathmandu valley was selected on the basis of ease of evaluation. It covers three districts: Kathmandu, Bhaktapur and Lalitpur which covers approximately 899 square kilometers of area. People from various parts of Nepal migrate to capital city and maximum number of Taxi stands are located here. As a result, over the last couple of years, a few startups have attempted to capitalize at the cab hailing offerings through making it each comfortable and convenient for the Kathmandu's commuters.

The sample chosen for the study was 386 as per the calculation made from the formula; $n_0 = \frac{z^2 pq}{e^2}$ (Cochran et al., 2004), where n_0 = sample size required for the study, Z = Standard tabulated value for 5% level of significance, p = Prevalence of customers perception towards taxi management, e = allowable error that can be tolerated.

Research Instruments and Procedure for Data Collection

Survey was conducted through questionnaire responded to by taxi drivers of Kathmandu valley. Before actual collection of data, pre-testing was undertaken with 20 respondents to confirm whether the given questions provide sufficient information or not. After the pre-test certain modification and questions were added to obtain more useful information from the respondents specifically from the user. This research relied upon primary data collection method where both qualitative and quantitative data was analyzed. Structured questionnaires are used as research instruments for the first section of this study as we use a predetermined set of question. A total of 386 taxi drivers were selected for data collection. After the collection of the data, the data were analyzed by using MS Excel, SPSS and AMOS software.

Results

Socio-demographic Analysis

The participants for the study were all male (i.e., 386 participants). Most of respondents are in between the age of 35-40. Majority of the participants have completed their studies up to 10+2 or intermediate level. Majority of respondents have been driving for five to ten years that is, 49.22% among the participants and 50% of them drive the taxi five days per week. Majority of the participants that is, 52.85% prefer to drive in daytime rather than night time.

Observed mean, standard deviation, skewness and kurtosis are also measured. Mean and standard deviation of all the variables for the study is in between 2.3523 to 2.8238 and 0.70989 to 1.11375 respectively indicating that standard deviation is clustered around the mean. Hosking (1990) skewness shows the positive and negative shape of distribution and kurtosis gives the result on heavy-tailed and light-tailed relative to the distribution. Meeden et al., (1984) propose that while using SEM the skewness should lie between -3 to +3 and kurtosis between -10 to +10. Hence, the data are acceptable as our result lies in between the standard value.

Inferential Analysis

Exploratory Factor Analysis (EFA)

KMO and Bartlett's test were measured in this study to evaluate the exploratory factor analysis and to further determine the minimum number of underlying hypothetical factors representing a greater number of variables (Watkins, 2018). Our result of KMO reports a coefficient of 0.843 which is higher than 0.5 denoting significance (Kaiser, 1974) and Bartlett's Test of Sphericity is 0.000 which is much less than 0.05 reporting no issues with data reliability and validity. The study uses Harman's single factor test for common method bias. Our result for cumulative percentage is 33.54% which is less than 50% reassuring data validity (Howe, 1999). Only 15 items from the 5 latent constructs meet the threshold value of 0.5. Initial communalities are estimates of the variance in every variable accounted for with the aid of all aspects or factors. The extraction method used for the study is principal component analysis (PCA) whose value in the communality is higher than 0.5 as suggested by Ul Hadia et al., (2016) which tells us that the variance for each variable are explained by the factors. So, in this case searching at these extraction values, our results emerge suitable. In communalities table the values have to be higher than 0.5 which is met through the chosen variables (Ul Hadia et al., 2016). Varimax with Kaiser Normalization is applied for rotation method and the values are greater than 0.5 for 15 items of 5 constructs.

Measurement Model

Measurement model determines the relationship between the latent variables and their measures (Fornell, 1992). In measurement model, Cronbach alpha, Composite Reliability (CR), Average Variance Extracted (AVE), Maximum Shared Variance (MSV) are measured and their minimum values observed from our result are; 0.750, 0.752, 0.503 and 0.265 respectively. As literature shows (Chandel et al., 2015) the constructs have fulfilled the criteria of convergent validity and discriminant validity; $AVE > 0.5$, $CR > 0.7$, $CR > AVE$ and $AVE > MSV$ and $\sqrt{AVE} > R$ (see table 2 and 3) which refer the data are reliable and valid.

Confirmatory factor analysis is the statistical producer for checking out Hypotheses about the commonality among variables (Hoyle & H, 2000). Hu and Bentler (1999) recommend a contemporary criterion of $CMIN/DF < 5$, $RMR < 0.08$, $GFI > 0.80$, $CFI > 0.90$, $TLI > 0.90$, $IFI > 0.90$ and $RMSEA < 0.08$. The result indicates $CMIN/DF < (1.541 < 5)$, $RMR (0.032 < 0.08)$, $GFI (0.960 > 0.80)$, $CFI (0.979 > 0.90)$, $TLI (0.973 > 0.90)$, $IFI (0.980 > 0.90)$ and $RMSEA (0.037 < 0.08)$ which indicates that the result match the accepted value, and the model fits the dataset.

Table 2
Reliability and Validity

Construct	Indicator	Factor Loading	CRONBACH ALPHA	CR	AVE	MSV
Safety	S_1	.729	0.757	0.761	0.516	0.268
	S_3	.827				
	S_4	.808				
Accessibility	A_3	.786	0.766	0.771	0.530	0.354
	A_4	.732				
	A_5	.781				
Convenience	C_1	.750	0.790	0.791	0.558	0.354
	C_2	.790				
	C_4	.787				

Construct	Indicator	Factor Loading	CRONBACH ALPHA	CR	AVE	MSV
Price	P_1	.853	0.859	0859	0.670	0.278
	P_2	.859				
	P_3	.831				
Intention to use taxi management	I_2	.800	0.750	0.752	0.503	0.265
	I_4	.801				
	I_5	.779				

Source: Authors computation

Table 3
Latent Construct Correlation

SEM correlations					
	S	A	C	P	I
S	0.718				
A	0.495	0.728			
C	0.518	0.595	0.747		
P	0.296	0.421	0.527	0.88	
I	0.292	0.515	0.381	0.292	0.709

Source: Authors computation

Table 3 shows the latent construct correlation between variables. The reliability values have been already confirmed and discussed. The statistics shows that correlation between construct falls between 0.709 to 0.88. This ensures that there is no any issue of validity.

Test of Hypothesis

In this research we investigate seven hypotheses to find significant and insignificant relationship between variables. Table 6 shows all the hypothesis are significant at p-value < 0.05 (Leo et al., 2020). Mediation represents the addition of a third variable to this $X \rightarrow Y$ relation (MacKinnon et al., 2007). In this study, mediation analysis is determined between the independent variables of Accessibility(A), Convenience (C), Price (P) alongside the mediating variable i.e. Safety (S) alongside Intention to used taxi management (I) which is the dependent variable. As Agler et al., (2017) observe, p-value after carrying out the Sobel test is 0.000 for all the relationship ($A \rightarrow S \rightarrow I$, $C \rightarrow S \rightarrow I$ and $P \rightarrow S \rightarrow I$) which means safety shows the indirect effect on other variables (see Table 7).

Figure 2 shows the structural equation model which has been drawn from the AMOS. It contains error variables, latent variables and observed variables. A path analysis diagram is an illustration whereby the variables are recognized and arrows from variables are drawn to other variables to point out theoretically based totally causal relationships. A single-headed arrow points from purpose to effect. A double-headed, curved arrow shows that variables are purely correlated; no causal members of the family are assumed. The independent (X) variables are referred to as exogenous variables. The dependent (Y) variables are known as endogenous variables (Youth, 2006).

Figure 2
Structural model

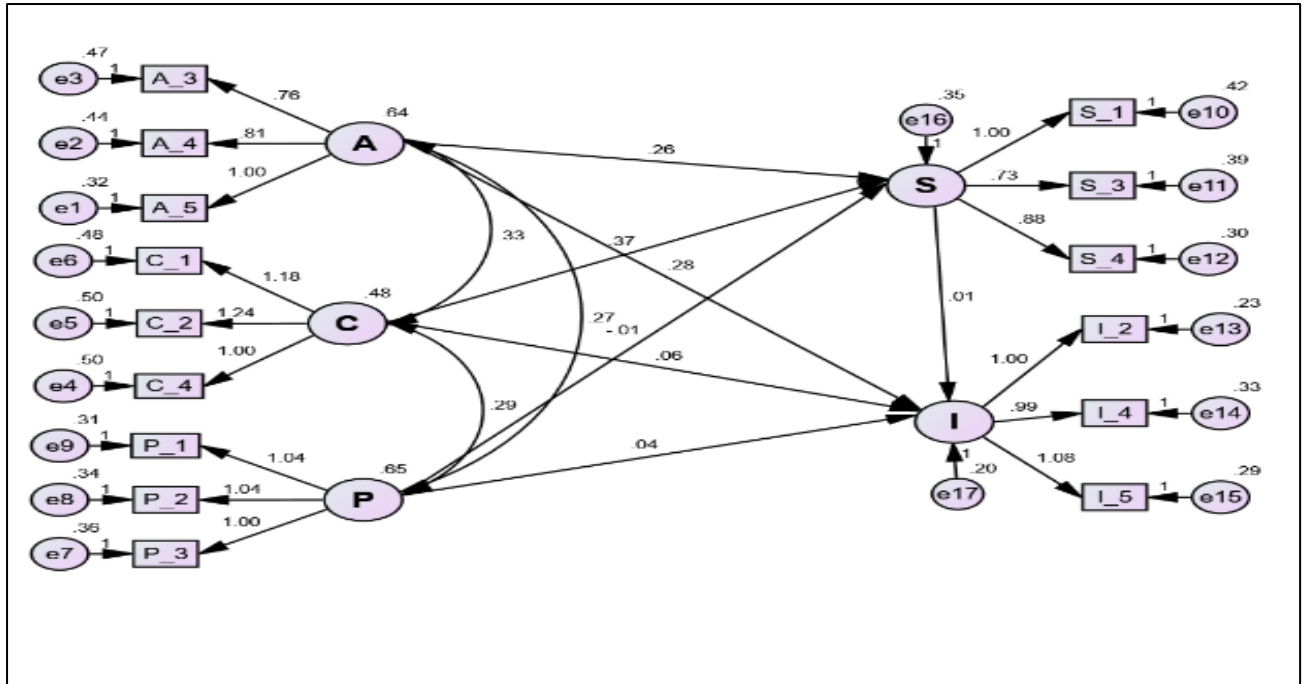


Table 4
Path Estimates for Structural Model

Hypothesis	Relationship	Estimate	S.E.	C.R.	P	Significant/ Insignificant
H ₁	Safety → Intention	.110	.027	4.077	***	Significant
H ₂	Accessibility → Intention	.214	.032	6.632	***	Significant
H ₃	Accessibility → Safety	.285	.044	6.510	***	Significant
H ₄	Convenience → Safety	.260	.040	6.499	***	Significant
H ₅	Convenience → Intention	.138	.027	5.140	***	Significant
H ₆	Price → Safety	.172	.039	4.418	***	Significant
H ₇	Price → Intention	.122	.028	4.314	***	Significant

Table 5
Mediating Relationship

			Mediating Effect		Test Statistic	p-value
			b	s _b		
Accessibility	a	0.355	0.445	0.046	6.2798	0.000
	s _a	0.043				
Convenience	a	0.355	0.445	0.046	6.1137	0.000
	s _a	0.045				
Price	a	0.242	0.445	0.046	4.9503	0.000
	s _a	0.042				

Discussion

In this study, test of reliability and correlations are conducted to examine the relationship of the constructs (safety, accessibility, convenience, price and intention to use taxi management). The first hypothesis confirms that safety is positively related to intention to use taxi management. It is similar to the finding of Oliver et al., (2002), a stronger perception that commitment of management to health and safety was related to more positive emotional well-being and less unsafe behavior. Safety influence positively on customer's intention to use taxi service and, taxi drivers believe that Taxi Federations has got workplace transport safety under control. The study of Devkota et al. (2021) reveals that majority of the respondents feel safer in the taxi because there is less chance of accidents as the taxi drivers are experienced one. Taxi driver's believe that drivers should ensure that they are well rested, and feeling fit and healthy.

Hypotheses 2 and 3 convey that accessibility influences safety and intention. Similarly, hypothesis 4 and 5 show convenience affect safety and intention significantly. Taxi entrepreneurs perceive transport management systems as convenient and accessible since they pick up customers within a short waiting time frame through requests made via the transport management systems (Salnikov et al., 2015). Shi et al., (2014), reveal taxi drivers have more scrambling behaviors such as speed driving and violations than non-professional drivers. Maximum taxi drivers' responded that existing industry regulations affected least on their driving behaviors.

The hypotheses 6 and 7 reveal that safety and intention are also positively affected by the price. As the taxi drivers grow experience, a customer feels more safer to ride. Olvera et al., (2016), found in sub-Saharan Africa that because of the drivers' experience or the times when competition is less fierce, some drivers manage to generate more income than in others. Maximum taxi drivers from our study responded that they given their experience they were unable to generate an adequate income in every period. Recently, buses and motorcycles have increased in large numbers and pose to be the competition for the taxi drivers as the price differs by large amount. Phiboonbanakit and Horanont (2021) state that distance followed by travel time, speed, and traffic congestion, are crucial factors for determining the trajectory patterns have a significant impact on taxi drivers income. As these factors are considered for the add-on income to the drivers.

Conclusion

The objective of this study is to identify the taxi driver's views about taxi management in the Kathmandu valley. The finding of the study revealed the satisfaction level of each variable to one another. From the study it is noted that safety, convenience and accessibility in the taxi services positively impact on the customers intention to use the taxi services. With the comfort of safety while travelling and easy availability of taxis anywhere with the affordable fare, customer prefer and intend to use taxi services more often. Providing training to the drivers and monitoring of driver behavior offers vital opportunities for improving traffic safety. Safety concerns of women and children need to be effectively addressed. Due to various government policies and low meter rate provided by the government, it is difficult to stay in the taxi business. As we can see that nowadays many online platforms like Tootle, Pathao and so on are providing the transportation services to the customer and they charge low price and with help of technology they have created challenges to the conventional taxi services.

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