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# THE OUTSTANDING SUCCESS OF GRAB AND IMPLICATIONS TO THE TRADITIONAL TAXI IN VIETNAM

[1]Minh Hieu Vo, *[2]Van Kien Pham, [3]Quang Trung Ngo

**ABSTRACT**

***Background:*** *Recently, a new business model with Grab's smartphone apps is growing stronger and more popular in Vietnam. The new service type brings its consumers benefits that traditional players cannot such as lower price, convenience, luxury, etc. This inherently has changed Vietnamese using the behavior of the Taxi service. Consequently, this modern service leads to rapid declines in the traditional taxi industry.*

***The context and purpose of the study:*** *For these reasons, this study concentrates on enquiring about factors which have affected and changed the Vietnamese consumer behavior in using taxi services in recent years. As a result, six factors are drawn from the given literature with six hypotheses being built in the research model.*

***Methods:*** *To achieve the research objective, this article applies the exploratory factor analysis (EFA) and multivariate linear regression to analyze the data collected from 280 participants who answered the survey questionnaires related to the use of Grab's taxi services.*

***Results:*** *The final findings show that Grab using the behavior of consumers in Vietnam is mostly affected by the value of prices, the attractiveness of personal vehicles, the influence of society and the experiences.*

***Conclusions:*** *Under the perspective of managers, clearly finding out the factors can helpfully bring them suggestions in building and creating appropriate business strategies and allocating key investment resources. Finally, this article figures out implications in order to improve the traditional taxi industry in Vietnam.*

***Key words:*** *Grab, traditional taxi, consumer behavior, Vietnam*

## I. INTRODUCTION

Operating in the Vietnam market since the beginning of 2014, a new taxi-based business model in the form of ride-sharing service using LBS technology and the GPS on Grab's smartphone app is increased dramatically in cities like Ho Chi Minh City, Hanoi, Da Nang, etc. Obviously, with the outstanding advantages of price and service, Grab's new type of taxi service is very attractive to Vietnamese consumers. Consumers are excited about this new type of taxi with many

[1] Faculty of Commerce, Van Lang University (VLU), HCM City Vietnam
[2] Department of Department of Science and Technology; University of Economics and Finance – UEF, HCM City, Vietnam
[3] Faculty of Commerce, Van Lang University (VLU), HCM City Vietnam

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specific benefits such as cheaper rates, proactive choice of vehicles, flexible payment methods without cash, and so on. New taxi service providers like Grab are really creating a revolution and changing consumer behavior in the Vietnam market.

Particularly, Grab has pioneered a business model that could quickly bring profits to businesses and also bring many benefits to Vietnam. The success of this model is evidenced by the profits made to both service providers and users thanks to the ability to increase the efficiency of using available resources such as personnel, available vehicles. For example, the growth of GrabFood's business partner reached 70% after only a few months of launch or 21% growth in the number of cashless rides is a testament to the contribution to promoting the cashless digital economy. In addition, the sharing economy model used by Grab has also helped connect many small and medium taxi companies, due to the quick connection with customers, increased driving performance, and reduced emptying rates. Consequently, Grab services including GrabTaxi, GrabBike, GrabExpress have also been available in 31 provinces and cities in Vietnam after a short time being on the market.

In addition, it is not difficult to realize that, since Grab has been established, competitive pressure has become an innovation driving force for traditional taxi companies. No longer "sleeping on the victory", large traditional players in Vietnam like VinaSun taxi, Mai Linh taxi, etc. have been more proactive and the fact that these companies have been making improvements to bring more value to users.

Therefore, one question arising a lot of attention now is what special features of Grab's new taxi business model have helped them create such a rapid development. Besides, from the perspective of management, the question of what factors have affected consumers' behavior in choosing services provided by Grab is really useful to focus on marketing efforts. For these reasons, the paper attempts to examine the factors that influence consumer use behavior of Grab in Vietnam, thereby helping Grab adjust its business operations to suit its Vietnamese consumers' wishes. At the same time, the study wants to recommend some suggestions to the traditional taxi players to improve their competitiveness in the new competitive landscape.

## II. LITERATURE REVIEW

### *A. Consumer Behavior*

The theory of consumer behavior is an important theory in business operations and corporate governance. There are many scholars who have studied and provided definitions of consumer behavior (e.g. Hoyer & Macinnis, 2008; Schiffman, & Kanuk 2010; Kotler & Armstrong, 2013; Kotler & Keller, 2012). Based on those studies, the authors summarize that consumer behavior is a continuous process that extends from the time consumers receive stimulus from active marketing activities of the enterprise (4P: products, prices, distribution, promotion) and stimuli from the macro environment (economics, politics, culture, technology), through complex brain processes based on individual characteristics (cultural, social, psychological, personal) and individual decision-making process that consumers will form their own feedback as well as reaction regarding the purchase of products and services. The process of stimulating the human brain is complicated and difficult to predict precisely, so it is considered a "black box" of consumers (Kotler, et al., 2005). Based on the mentioned concept of consumer behavior and a previous study by Venkatesh (2012). The authors propose six items to measure Grab using behavior in this study as indicated in Table 1.

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TABLE I. OBSERVED VARIABLES FOR USE BEHAVIOR SCALE

| **Variable** | **Variables symbol** | **Observed items** |
|---|---|---|
| Grab Using behavior | UB1 | Being able to continue to use Grab in the future. |
| | UB2 | Immediately thinking of Grab whenever needed |
| | UB3 | Using Grab more often. |
| | UB4 | Recommending Grab to relatives, friends and partners. |
| | UB5 | Using the Grab has become the habit |
| | UB6 | Using Grab has become an indispensable part of life. |

*B. Factors leading to Grab's success*

As discussed previously, the behavior of Grab users is also part of the consumer behavior theory, thus demonstrating a complex process from the formation of demand to after-using behavior. Therefore, there will be many factors that influence this process, mainly belonging to two groups (1) internal factors or perception of the individuals and (2) external factors influencing that perception (Southey, 2011; Venkatesh, 2012; Jeffrey and & Hristina, 2017). Within the scope of this study, the authors will use factors that directly have been changing perceptions, attitudes, and then customer behavior in the taxi service industry including social influence, favorable conditions, experiences of users, price value, attractiveness of personal vehicles, and social value. These six factors are also effective tools using to reset the game in the given industry. Each element will be discussed in detail to formulate the hypotheses and scales below.

*a. Social Influence*

According to Venkatesh et al., (2012) in the theory of acceptance and use of technology (UTAUT2), social influence is defined as a degree to which an individual perceived other important people 's belief that they should use the new system. This factor is similar to the subjective standard element defined by Aijen 's TPB theory social cognitive pressure to perform or not to behave (Ajzen, 1991). UTAUT2 theory argues that social influence has an impact on consumer behavior. Based on this argument the hypothesis 1 and scales are stated as follows:

***Hypothesis 1 (H1): Social influence is positively correlated with consumers' use of Grab.***

TABLE II. OBSERVED VARIABLES FOR THE SCALE OF SOCIAL INFLUENCE

| **Variable** | Variables symbol | Observed items |
|---|---|---|
| Social influ | SOI1 | Friends advised me to use Grab. |
| | SOI2 | Family members advised me to use Grab. |
| | SOI3 | Grab is frequently mentioned by people around. |
| | SOI4 | Grab is frequently mentioned by the media. |

| | | |
|---|---|---|
| ence | | |

*b. Favorable conditions*

In Venkatesh's UTAUT2 theory, favorable conditions are defined as the extent to which an individual believes that an organizational and technical infrastructure exists to support the use of the system. It can be understood that the knowledge and skills of consumers have accumulated as well as related infrastructure developed to support the use of services by users. The UTAUT2 theory states that favorable conditions affect service using behavior. The same opinion as this statement, the study proposes the hypothesis 2 and scales to measure favorable conditions are as follows:

***Hypothesis 2 (H2): Facilitating condition is positively correlated with consumer Grab usage.***

TABLE III. OBSERVED VARIABLES FOR A SCALE OF FAVORABLE CONDITIONS

| **Variable** | Variables symbol | Observed items |
|---|---|---|
| Favorable conditions | FC1 | Being financially eligible for Grab. |
| | FC2 | Being good at technology knowledge to use Grab. |
| | FC3 | Be able to get assistances (Grab operator) when having difficulties in using Grab. |
| | FC4 | Internet connection infrastructure (wifi, 3G) is convenient to use Grab. |

*c. Experiences of user*

According to Kotler et al., 2005, when the pressure to meet demand increases to a sufficiently strong level, demand becomes a motivation. For Grab, experiences of users are an important factor affecting their service using behavior because good experiences will lead to the perception of friendliness, happiness, comfort, and enjoyment. Therefore, the hypothesis 3 and for items of users' experiences are stated as follows:

***Hypothesis 3 (H3): Experiences of user has a positive relationship with consumers' use of Grab services.***

TABLE IV. OBSERVED VARIABLES FOR EXPERIENCE OF USERS SCALE

| **Variable** | **Variables symbol** | **Observed items** |
|---|---|---|
| | EU1 | Using the Grab service makes me happy. |

| | | |
|---|---|---|
| Experiences of user | EU2 | Using the Grab service gives me comfort. |
| | EU3 | Using the Grab service gives me the feeling of enjoying the achievements of technology. |
| | EU4 | Grab mobile app is designed to be user-friendly. |

*d. Price Value*

The price value is defined as the consumers' awareness of the balance between benefits received by the service and the costs paid for their use (Venkatesh, 2012). For consumers using Grab, the value price is always one of the important factors that directly affect the use of the service, especially when it is much cheaper if compared to the traditional taxi services. For these reasons, the scales for price value and the hypothesis 4 are proposed as follows:

***Hypothesis 4 (H4): Price value is positively associated with consumer Grab usage.***

TABLE V. OBSERVED VARIABLES FOR PRICE SCALE

| **No.** | **Variables symbol** | **Observed items** |
|---|---|---|
| Price value | PR1 | Grab price is reasonable |
| | PR2 | Grab is worth expending |
| | PR3 | Grab is cheaper compared to traditional services. |
| | PR4 | Grab offers more value than its traditional competitors |

*e. Attractiveness of personal vehicles*

The attractiveness of personal vehicles is an element that refers to replacement capabilities of technology taxis due to their quickness, convenience, time and cost savings rather than private vehicles (Beirao and Cabral, 2007; Mackett et

al., 2004). Especially in Vietnam, when the motorbike is a popular means for transportation, the aforementioned features of Grab are also an indispensable factor when considering the using behavior of services provided by Grab. So, the hypothesis 5 and 4 aspects of personal vehicles' attractiveness are presented as follows:

***Hypothesis 5 (H5): Attractiveness of personal vehicles has a positive relationship with consumers' use of Grab services.***

TABLE VI. OBSERVED VARIABLE FOR THE SCALE OF ATTRACTIVENESS OF PERSONAL VEHICLES

| **Variable** | **Variables symbol** | **Observed items** |
|---|---|---|
| Attractiveness of personal vehicles | AOV1 | Traveling by Grab is more convenient than personal vehicle |
| | AOV2 | Traveling by Grab is faster than personal vehicle |
| | AOV3 | Travel with Grab is cheaper than personal vehicle |
| | AOV4 | Using the Grab service helps to control time better than using personal vehicle |

*f. Social Value*

Social Value is related to the benefits of the customer from the engagement with specific social groups, such as friends and related groups. Social Value plays an important role in customer appreciation about products and services (Sheth, et al., 1991a; Sheth, et al., 1991b). In addition to serving the needs of traveling, the use of Grab service for many consumers simply comes from creating a confident, luxurious and successful image with friends and partners. Thus, social values brought from Grab have a certain impact on consumers' service use behavior. From the mentioned reasons, the authors propose the hypothesis 6 and s stated as follows:

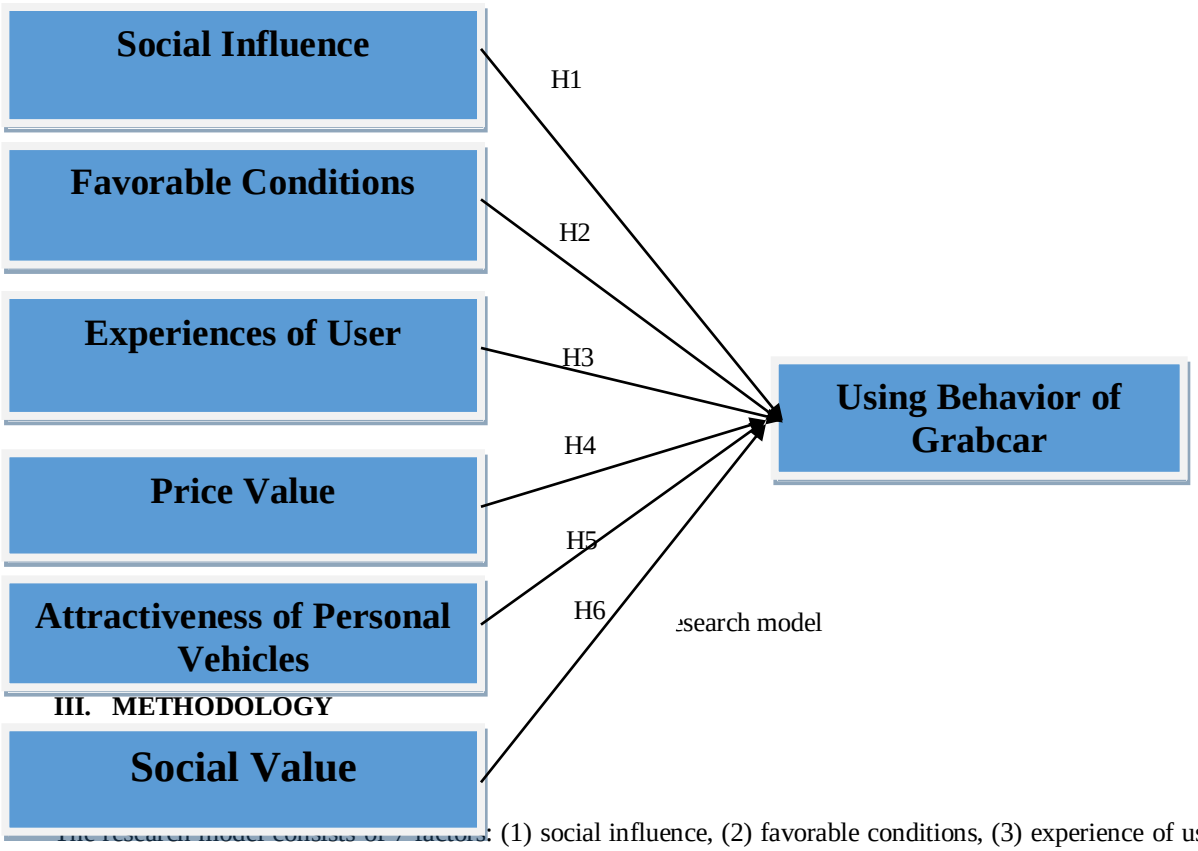
***Hypothesis 6 (H6): Social value is positively associated with consumers' use of Grab services.***

TABLE VII. OBSERVED VARIABLES FOR THE SOCIAL VALUE SCALE

| **Variable** | **Variables symbol** | **Observed items** |
|---|---|---|
| | SV1 | Using Grab service makes user feel more confident |
| | SV2 | Using Grab service makes user feel more respected |

| | | |
|---|---|---|
| ocial valu e | SV3 | Using Grab service lets users show their social class |
| | SV4 | Using Grab service lets user express personal style |

Thus, based on the selected factors and proposed hypotheses, the research model in this study is drawn as shown in Figure 1, including social influence, favorable conditions, experiences of users, price value, attractiveness of personal vehicles, and social value. This model will be applied to the empirical study in the next section.




esearch model

## III. METHODOLOGY

The research model consists of 7 factors: (1) social influence, (2) favorable conditions, (3) experience of users, (4) price, (5) attractiveness of personal vehicles, (6) social value and (7) use behavior. A total of 24 items for the independent variables and 6 items for the dependent variable is presented from Table I – VII in the previous section. These items are used to build the survey questionnaire using The Likert-5 measuring tool. A scale of 1 to 5-point indicates an increasing level of agreement, the higher the score, the greater the agreement for the statement and vice versa.

### *B. Methods of Data Collection and Processing*

The sample was selected using the convenient probability method. In order to conduct the factor analysis, it is necessary to collect data with a sample size of at least 5 samples per observed variable and the sample size should not be less than 100 (Hair et al., 2014). The research model had 30 observed variables, so the sample size should be at least n=3×5=150.

Normally, the larger the size of the sample is, the more representative the population is. However, due to the certain limited conditions of authors, the total number of completed and valid surveys was 252.

Data collection was completed by interviewing customers who have been using Grab in Vietnam. The form of collecting data was delivered to customers both directly and indirectly through an online survey on google docs. After the data collection was completed, it would be checked and eliminated unsatisfactory questionnaires. Then, data would be inputted and conducted by the SPSS software with the following techniques:

- The descriptive statistics are used to summarize the collected data. From the results of descriptive statistics, we could make preliminary conclusions about the relevance and characteristics of the research data.

- The Cronbach Alpha analysis is applied to test the reliability of items selected for each variable in the research model. In the empirical research, researchers suggest using Cronbach's alpha coefficient $\geq 0.7$ as the most suitable level to analyze the reliability of the scale. Otherwise, if the scale has Cronbach's Alpha coefficient $<0.7$, it will not be satisfactory (Cronbach, 1951).

- The Exploratory Factor Analysis (EFA) is used to shorten a set of multiple interdependent observation variables into a smaller set of variables so that they are more meaningful but still contain most of the original set's information. According to the Kaiser criteria, factors with Eigenvalue smaller than 1 will be excluded from the research model. The coefficient extraction method used in this study is the Principal Components with Varimax rotation. The Principal Components method will give the least number of factors to explain the general variance of the observed set of variables in their interaction. The correlation test between variables was measured by the Barlett test with a significance level of 5%. KMO coefficient in Barlett's test must satisfy the condition of $0.5 <KMO <1$ to achieve the coherence of the correlation between variables. (Norris, et al., 2009)

- The multiple linear Regression analysis is used to model the causal relationship between dependent and independent variables. The suitability of the model is assessed by the adjusted R2 coefficient. The adjusted R2 value does not depend on the magnification deviation of R2 and is therefore used for multivariate linear regression. The ANOVA test is used to test the suitability of a correlation model, that is, whether or not a relationship between independent and dependent variables. (Rencher and William 2012)

# IV. DATA ANALYSIS AND RESULTS

## *A. Descriptive Statistics*

The results in Table VIII provide the information of 252 participants who have answered the questionnaire. In general, this group is mainly composed of females, young age from 18 to 30 with a university-level. Most of them are working as staff in the cities. Therefore, the average income per month is about 5-10 million VND (about 215,49- 430,99 USD). Thus, these respondents have a good perception of the Grab service and they provide usable and significant data. The descriptive statistics for respondents are summarized in Table VIII.

TABLE VIII. DESCRIPTIVE STATISTICS

| | **Variables** | **Frequencies** | **Valid percentage** | **Sum percentage** |
|---|---|---|---|---|
| Gender | Male | 91 | 36,1 | 36,1 |
| | Female | 161 | 63,9 | 100,0 |
| Age | <18 | 7 | 2,8 | 2,8 |
| | **18 - 22** | **80** | **31,7** | **34,5** |
| | **23 - 30** | **120** | **47,6** | **82,1** |
| | 31 - 40 | 31 | 12,3 | 94,4 |
| | > 41 | 14 | 5,6 | 100,0 |
| Occupation | **Staffs** | **113** | **44,8** | **44,8** |
| | Business | 25 | 9,9 | 54,8 |
| | Students | 78 | 31,0 | 85,7 |
| | others | 36 | 14,3 | 100,0 |
| Education | Graduate | 15 | 6,0 | 6,0 |
| | **Bachelor** | **196** | **77,8** | **83,7** |
| | High school | 19 | 7,5 | 91,3 |
| | Other | 22 | 8,7 | 100,0 |
| Income | <5 millions VND | 90 | 35,7 | 35,7 |
| | **5–10** millions VND | **75** | **29,8** | **65,5** |
| | 11–15 millions VND | 50 | 19,8 | 85, |

| | | | | |
|---|---|---|---|---|
| | | | | 3 |
| | > 15 millions VND | 37 | 14,7 | 100,0 |
| Frequency of Grab use | 1/year | 22 | 8,7 | 8,7 |
| | 1/6 months | 22 | 8,7 | 17,5 |
| | **1/3 months** | **40** | **15,9** | **33,3** |
| | **1/1months** | **71** | **28,2** | **61,5** |
| | **1/week** | **58** | **23,0** | **84,5** |
| | 1/2-3 days | 26 | 10,3 | 94,8 |
| | 1/1 day | 9 | 3,6 | 98,4 |
| | Many times/1 day | 4 | 1,6 | 100,0 |

*Source: data processing from the survey*

*B. Reliability Analysis*

From the results of the reliability analysis shown in Table IX. We can see that the Cronbach's Alpha coefficients of all variables are greater than 0.7, the correlation coefficients of items are greater than 0.3. Therefore, almost of the scales are accepted excluding FC3, FC4, PR4 due to the following reasons:

TABLE IX. SUMARIES OF RELIABILITY ANALYSIS

| **Variables** | **Items** | **Cronbach's Alpha** | **Correlation** | **Cronbach's Alpha If items deleted** |
|---|---|---|---|---|
| Social influence | SOI1 | 0,731 | 0,517 | 0,905 |
| | SOI2 | | 0,585 | 0,840 |
| | SOI3 | | 0,581 | 0,821 |
| | SOI4 | | 0,412 | 0,754 |

| | | | | |
|---|---|---|---|---|
| Favorable conditions | FC1 | 0,773 | 0,632 | - |
| | FC2 | | 0,632 | - |
| Experience of users | EU1 | 0,810 | 0,681 | 0,735 |
| | EU2 | | 0,665 | 0,743 |
| | EU3 | | 0,660 | 0,745 |
| | EU4 | | 0,509 | 0,812 |
| Price | PR1 | 0,801 | 0,641 | 0,735 |
| | PR 2 | | 0,719 | 0,664 |
| | PR 3 | | 0,595 | 0,792 |
| Attractiveness of Personal Vehicles | AOV1 | 0,864 | 0,737 | 0,816 |
| | AOV2 | | 0,744 | 0,813 |
| | AOV3 | | 0,708 | 0,828 |
| | AOV4 | | 0,660 | 0,847 |
| Social value | SV1 | 0,905 | 0,698 | 0,906 |
| | SV2 | | 0,813 | 0,867 |
| | SV3 | | 0,857 | 0,850 |
| | SV4 | | 0,777 | 0,880 |
| **User Behavio** | UB1 | 0,856 | 0,610 | 0,838 |
| | U | | 0 | 0,817 |

| | | | | |
|---|---|---|---|---|
| **r** | B2 | | ,719 | |
| | U B3 | | 0 ,763 | 0,808 |
| | U B4 | | 0 ,604 | 0,839 |
| | U B5 | | 0 ,611 | 0,839 |
| | U B6 | | 0 ,573 | 0,846 |

*Source: Cronbach's Alpha calculated from the survey*

From the results of the reliability analysis shown in Table IX. We can see that the Cronbach's Alpha coefficients of all variables are greater than 0.7, the correlation coefficients of items are greater than 0.3. Therefore, almost of the scales are accepted excluding FC3, FC4, PR4 due to the following reasons:

1) The removal of the FC3 (I can get help from friends, family or Grab operator when having trouble using Grab service) and FC4 (Internet connection like Wi-Fi, 3G support well benefits of my Grab service) can be explained by the fact that Grab service is considered to be relatively easy to use, so factors that get help from friends, relatives or the Grab operator when having difficulties brings not much meaning. Similarly, the current Internet connection such as Wi-Fi, 3G in major cities of Vietnam is considered to be quite good and convenient to use Grab service, so this factor does not make much sense

2) The removal of the PR4 (At current prices, Grab offers more value than a traditional taxi) can be explained by the fact that Grab service brings more value and does not mean much in the price which affects consumers in Vietnam.

*C. The EFA Analysis*

The results show that the KMO reaches 0.879, the sig. of Bartlett's test is 0.000. Hence, the factor analysis is appropriate. All variables have factor loading coefficients ≥ 0.5 and explain 73,12% of the variation of data. There are 26 observed variables classified into 8 main factors as shown in Table X. and XI.

TABLE X. FACTOR ANALYSIS

| **Items** | **Factors** | | | | | |
|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| SV3 | 0, 905 | | | | | |
| SV4 | 0, 840 | | | | | |
| SV2 | 0, 821 | | | | | |
| S | 0, | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| V1 | 754 | | | | | |
| AOV2 | | 0 ,811 | | | | |
| AOV3 | | 0 ,774 | | | | |
| AOV1 | | 0 ,765 | | | | |
| AOV4 | | 0 ,765 | | | | |
| FC2 | | | 0 ,885 | | | |
| FC1 | | | 0 ,702 | | | |
| EU2 | | | | 0 ,776 | | |
| EU3 | | | | 0 ,721 | | |
| EU1 | | | | 0 ,667 | | |
| EU4 | | | | 0 ,510 | | |
| PR2 | | | | | 0 ,791 | |
| PR1 | | | | | 0 ,774 | |
| PR3 | | | | | 0 ,726 | |
| SOI2 | | | | | | 0 ,807 |
| SOI1 | | | | | | 0 ,730 |
| SOI3 | | | | | | 0 ,689 |
| *Extraction Method: Principal Component Analysis.* KMO = 0.879, the sig. of Bartlett's test is 0.000 | | | | | | |
| *Rotation Method: Varimax with Kaiser Normalization.* % variance explained = 73.12 | | | | | | |

*Source: data processing from the survey*

*D. THE RESULTS*

From the results presented in Table XI, we can conclude as follows:

- Hypothesis 1 is accepted (B= 0.126; P-value = 0.001). In other words, Social value has a positive relationship (Beta = 0,155) with the use of the Grab service of consumers in Vietnam. This means that the higher the social value of Grab service for consumers, the more often it will lead to consumers using Grab.

- Hypothesis H2 is supported (B= 0,168: P-value = 0.000), or the attractiveness of personal vehicles has a positive relationship (Beta = 0.214) with the use of Grab services of consumers in Vietnam. In other words, if Grab service brings more utilities and advantages than personal vehicles (motorbikes), consumers are likely to use Grab service more often.

- Hypothesis H3 is supported (B= 0,109: P-value = 0.047) or Favorable conditions have a positive relationship (Beta = 0.099) with the use of Grab service of consumers in Vietnam. Particularly, the more favorable the conditions are to support the use of Grab, the more consumers are likely to use Grab.

- Hypothesis H4 is supported (B= 0,199: P-value = 0.001) or an Interesting experience for users has a positive relationship (Beta 0.184) with the use of Grab services of consumers in Vietnam. This means that the higher the value of Grab's experience, such as comfort, pleasure, etc., the more likely consumers will use Grab.

- The hypothesis H5 (B= 0,214: P-value = 0.000) or The value of price has a positive relationship (Beta = 0.223) with the use of Grab service of consumers in Vietnam. This result reflects the higher the price value of Grab service brings to consumers; the more consumers will be more likely to use Grab.

- Hypothesis H6 (B= 0,185: P-value = 0.000) or the influence of society has a positive relationship (Beta = 0,201) with the use of Grab service of consumers in Vietnam. This means that the greater the positive influence of relatives and friends, the higher use of Grab service.

The results in Table XI also show that the adjusted R2 = 0.615. This result means that the linear regression model has been built in accordance with the data set at 61.5%. The remaining 38.5% is due to random errors or other factors.

TABLE XI. RESULTS OF LINEAR REGRESSION ANALYSIS

| **Variables** | **Unstandardized coefficient** | | **Standardized coefficient** | | **ig.** |
|---|---|---|---|---|---|
| | ***B*** | ***td.*** | ***Beta*** | | |
| Constant | -0,218 | ,208 | - | 1,05 | ,294 |

| | | | | | |
|---|---|---|---|---|---|
| | | | | 1 | |
| SV | 0,126 | ,039 | 0,155 | ,239 | ,001 |
| AOV | 0,168 | ,040 | 0,214 | ,221 | ,000 |
| FC | 0,109 | ,055 | 0,099 | ,998 | ,047 |
| EU | 0,199 | ,061 | 0,184 | ,231 | ,001 |
| PR | 0,214 | ,050 | 0,223 | ,272 | ,000 |
| SOI | 0,185 | ,044 | 0,201 | ,237 | ,000 |
| **$R^2$ adjusted = 0,615** | | | | | |

# V. CONCLUSIONS AND IMPLICATIONS

## *A. CONCLUSIONS*

In determining factors affecting Grab using the behavior of consumers in Vietnam, the authors draw the research model including six hypotheses. The quantitative study was adopted using the survey questionnaire based on the five-point Likert scale. The primary data surveys were collected with a total of 252 respondents. The final results of the linear regression analysis show that all of the hypotheses are supported. Firstly, Price has the strongest impact on consumers using the behavior of Grab. With the current business model, Grab has many advantages when operating without investments for vehicles, fixed salary for drivers, personnel for the system, etc... Thus, Grab brings better price value than traditional players. Secondly, the Attractiveness of personal vehicles factor is the second important factor focusing on the values brought by Grab service including convenience, fast, low cost, better control of travel time than private vehicles. Grab is doing well this factor as the company can ensure a sufficient number of vehicles to maintain serving consumers timely and service quality standards for consumers. Thirdly, Social influence is the 3rd important factor including advice from family, friends, and word of mouth. So, to affect potential customers, it is necessary to select successful influencers. Fourthly, the Experiences of the user is also an important factor in the research model. This factor reflects the fact that Grab is successful to bring comfortableness, funniness, and friendliness to its consumers. Eventually, Social value including confidence, expectation, social class, and personal style makes Grab become special taxis to consumers

## *B. IMPLICATIONS TO TRADITIONAL TAXI PROVIDERS.*

Although traditional taxi providers are losing their competitive advantage quickly due to the appearance of Grab, they still can compete well in the market if they recognize the problems and except to change. Based on the study's findings, some implications may be applied to the traditional taxi companies. Firstly, traditional taxi players with their successes have ignored customers and new competitors, so they should identify the competition trend which is service quality, thereby developing a set of quality-oriented standards for service provisions. Specifically, the priority things to do are to focus on training drivers, evaluating drivers by using the users' rating and quickly responding to complaints, etc... to make sure that the customers are feeling comfortable and satisfied with the services. Secondly, traditional businesses should pay much attention to the social influence factor for their promotion programs. Marketing channels should be through experience sharing articles, evaluation reputable third-party services on blogs, forums, or Fan page in Facebook, YouTube channel, etc..., selection of middle-aged, successful influencers with more persuasive and effective results. Thirdly, good experience of users should be paid attention by creating funnier and more comfortable during the journey such as charger, inside-car Wi-Fi, wipes, good smell, nice music, friendly and enthusiastic drivers. Eventually, diversified product portfolio should be applied for those who have a high demand for social values such as high-class vehicles.

**LIST OF ABBREVIATIONS**

| TERMINOLOGY | **ABBREVIATIONS** |
|---|---|
| Social influence | **SOI** |

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| | |
|---|---|
| Favorable conditions | **FC** |
| Experience of users | **EU** |
| Price | **PR** |
| Attractiveness of Personal Vehicles | **AOV** |
| Social value | **SV** |
| User Behavior | **UB** |
| Location-based service | ***LBS*** |
| *Global Positioning System* | ***GPS*** |
| The exploratory factor analysis | **EFA** |

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