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RESEARCH ARTICLE

Predicting the Potential Patients' Intention to Select Healthcare Service Providers: Application of Structural Equation Modeling Based on the Theory of Planned Behavior

Peivand Bastani^{1,2}, Mahnaz Javanbakht^{1,3} and Ramin Ravangard^{1,2,*}

¹Department of Health Services Management, School of Management and Medical Information Sciences, Shiraz University of Medical Sciences, Shiraz, Iran.

²Health Human Resources Research Center, School of Management and Medical Information Sciences, Shiraz University of Medical Sciences, Shiraz, Iran.

³Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran.

Abstract:

Background:

Today, patients are more sensitive in selecting healthcare services than the past, and are more engaged in their healthcare process. Also, the characteristics of each health service provider are likely to affect the patients' behavior or intention to behave in selecting service providers.

Objective:

To predict the intention of employees working at Shiraz University of Medical Sciences (SUMS), as potential patients, to select health service providers.

Methods:

This cross-sectional applied study was carried out among 330 employees of various SUMS' sub-centers in 2016 using structural equation modeling (SEM). A standard questionnaire designed based on the theory of planned behavior (TPB) was used for collecting the required data. The collected data were analyzed by Warp-PLS 5.0 software.

Results:

The results of the model fitness in the public, private and charity sectors showed that these models were well fitted and the greatest associations were between the attitude towards the behavior and intention, the perceived behavioral control and intention, and also between the perceived behavioral control and intention in the studied sectors.

Conclusion:

It seems that the positive attitude of the employees leads to their increased intention of selecting the public sector. In this regard, the University was recommended to take action to build trust among its employees and to create an atmosphere of empathy and respect in order to facilitate employees' use of services.

Keywords: Theory of planned behavior, Health service providers, Patients' intention, Public sector, Private sector, Charity sector.

Article History

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1. INTRODUCTION

Health is one of the most fundamental rights of every community and is the drive for development; thus, it is the fundamental duty of every government to ensure the realization of health. With this description, the main goal of every health system is to promote health among individuals and also, the

main function of such health systems is to provide health services [1]. Health service providers can widely range from specialty and sub-specialty hospitals to health care centers. Hospitals as the largest and most costly units are of particular importance and approximately spend between 50 and 80 percent of total health sector resources [2].

In Iran, the public and private sectors together provide various healthcare services. However, the public sector, and particularly the Ministry of Health and Medical Education, has a greater share. Furthermore, the charity sector, which largely relies on the financial assistance of the government but has an intermediate position between the public and private sectors in terms of tariff, has greatly integrated with the public sector, particularly over the past two decades [3].

Moreover, recent rapid advances in medical sciences and new technologies in the field of healthcare, on the one hand, and increased level of people’s knowledge as well as their improved socio-economic level, on the other hand, have led to higher expectations of the people of health services offered in hospitals. Today, patients are more sensitive in selecting healthcare services than the past, and are more engaged in their healthcare process [4, 5]. In this regard, studies show that maintenance and promotion of the health status of patients can be among important outcomes of emphasizing and concerning patients’ selection of health service providers [6].

With regard to this issue, the results of other studies indicate that the characteristics of each health service provider are likely to affect the patients' behavior or intention to behave in selecting service providers [7]. It is obvious that human behavior or intention to behave is a reflection of several factors and, in this regard, different models and theories have been presented [8], among which the theory of planned behavior (TPB) is a major one explaining the main mechanism of the adoption of health behaviors. This model predicts the occurrence of a particular behavior, provided that one intends to perform it [9]. The TPB consists of attitude towards the behavior, perceived behavioral control, subjective norm, intention and behavior. According to the model, the intention to perform a behavior is predicted by three factors

- [1] Attitude towards the behavior: Is the person in favor of performing it?
- [2] Subjective norm: How much social pressure does the person feel to perform it?
- [3] Perceived behavioral control: Does the person feel in control of performing the intended action?

The aforementioned concepts are shown schematically in Fig. (1) [10]:

Thus, by considering the importance of investigating factors influencing the choice of health care providers by the people and predicting their intention in this regard by the healthcare system policymakers, this study aimed to predict the intention of employees working at Shiraz University of Medical Sciences (SUMS), as potential patients, to select health service providers.

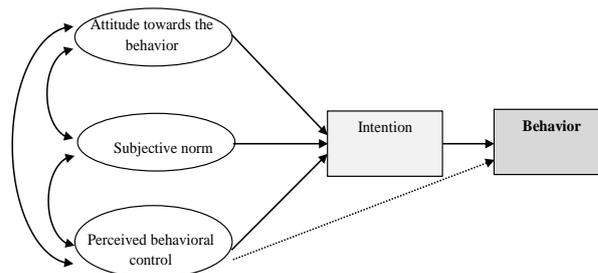


Fig. (1). The TPB.

2. METHODS

This cross-sectional applied study was carried out in 2016 using Structural Equation Modeling (SEM). The study population consisted of employees working at SUMS’ sub-centers such as faculties, hospitals, health care centers, research centers and the headquarters. The SUMS is the largest medical university in Southern Iran. The sample size of this study was determined based on the rules and indices contained in structural equation models, and by using the ratio of a sample size to the number of items, where the minimum, intermediate and maximum levels are 5:1, 10:1 and 20:1, respectively [11]. Thus, given that there were 33 items in the questionnaire, by taking the intermediate level of the sample size to the number of items ratio, 330 samples were determined for the purpose of the research and entered the study after informed consent was obtained from them.

The standard English-language version of the questionnaire developed by Ferreira based on the TPB was used for collecting the required data [7]. This questionnaire was first translated from English to Persian and then, was back-translated from Persian to English (via Forward-backward Translation). In the next step, two back-translated English-language versions of the questionnaire were reviewed by the experts fluent in English, compared with one another and verified. Also, the final back-translated questionnaire was localized and adapted by applying opinions of experts and a number of items related to charity healthcare institutions were added to it. In addition, the types of basic health insurance and supplementary health insurance coverage, as well as the place of work, organizational position, work experience and type of employment as demographic data were added to the questionnaire. Finally, the moderated valid local language questionnaire was applied for data collection.

The questionnaire consisted of two parts including demographic data of the target employees (such as age, gender, educational level, etc.) and 33 items on theoretical aspects of the theory of planned behavior, which included four items on the importance of health and use of healthcare (for example: “How strongly are you interested in health issues?” with a 5-point likert scale for responding to such questions whereby 1 referred to “very weak” and 5 to “very strong”), four items on the attitude towards the behavior construct (for example: “In your opinion, if you need a specialist consultation, are you choosing a private health care assistance instead of the public health care assistance?”), four items on the subjective norm construct (for example: “My family/friends think I should

* Address correspondence to this author at the Health Human Resources Research Center, School of Management and Medical Information Sciences, Shiraz University of Medical Sciences, Shiraz, Iran., Tel: +98-7132340774 Email: ra_ravangard@yahoo.com

choose private assistance instead of public assistance if I need a specialist consultation”), four items on the perceived behavioral control construct (for example: “If I need a specialist consultation, to choose the private sector is entirely up to me”), four items on the intention construct (for example: “Imagine you need a specialist consultation. How likely are you to choose a private provider?”). A five-point Likert scale was used to answer the questions related to attitude towards the behavior, subjective norm, perceived behavioral control, and intention constructs whereby 1 referred to “never” and 5 to “always”. Also, three items were on the behavior construct (for example, “During the past 12 months did you attend a private health care assistance consultation?” This was a yes or no question. If the answer was positive, it was followed by “Please identify what kind of healthcare assistance”). Finally, 10 items in this part measured past experience of selecting health services (for example: How do you evaluate the service quality of professional and technical care in the private sector?) and a 5-point Likert scale was used for responding to such questions whereby 1 referred to “very bad” and 5 to “very good”).

The face and content validity of the questionnaire was assessed and approved by getting the experts’ opinions. Also, the SEM approach was used to assess the construct validity, measuring the convergent validity and divergent validity. To assess the convergent validity of the questionnaire, standard factor loading (acceptable if greater than 0.5, and unacceptable if less than 0.5), Composite Reliability (CR) (acceptable if greater than 0.7) and Average Variance Extracted (AVE) (acceptable if greater than 0.5) indices were used [12]. Moreover, Fornell and Larcker’s (1981) index was used to assess the divergent validity of the questionnaire [13]. According to this index, as the square root of the AVE (on diagonal) for each construct exceeds the shared variance between that construct and other constructs (*i.e.*, the square of correlation coefficients between the constructs), that construct is said to be divergent.

Also, Cronbach’s alpha coefficient was used to assess the reliability of the questionnaire, which resulted in $\alpha=0.806$, demonstrating good reliability of the study instrument.

The collected data were entered into Warp-PLS 5.0 software for performing analyses and SEM processes. Furthermore, standard and non-standard regression coefficients along with the most important indices of the goodness of fit

were reported for service providers in each sector of public, private and charity, and overall fitness of each model was obtained in the study sample.

2.1. Ethics

The present study was approved by the Ethics Committee of Shiraz University of Medical Sciences (Code: IR.SUMS.REC.1395.S697). Informed consent was obtained from all employees participating in the study.

3. RESULTS

The demographic results of the study show that most of the participants were female (66.06%), married (68.5%), in the 31-40 years of age group (38.8%), working in the hospitals (67.3%) in the administrative and financial positions (41.2%), as the treaty employees (39.7%), had bachelors’ degrees (56.4%), and between 5 and 15 years of work experience (51.5%).

The results obtained from the evaluation indices for convergent validity of the TPB for service providers of public, private and charity sectors were within the specified range, confirming the convergent validity of the questionnaire Table 1. Moreover, the results obtained from the evaluation indices for divergent validity of the TPB for service providers of public, private and charity sectors indicated that the values on the diagonal column were greater than those below and on their left columns, which imply the confirmation of the convergent validity of the questionnaire Table 2.

The primary analysis of the model showed that the coefficient of determination for the whole model Fig. (2) was $R^2=0.02$. The coefficient of determination can take on any value between 0 and 1, with a value closer to 1 indicating a better explanation of the model, and a value closer to 0 indicating a lack of model explanation. Cohen suggested that the dependent variable is inappropriately explained if $R^2<0.02$, poorly explained if $0.02<R^2<0.13$, moderately explained if $0.13<R^2<0.26$, and remarkably explained if $R^2>0.26$ (16). Accordingly, this model “inappropriately and poorly” explained the “behavior”. As a result, in order to evaluate the quality of the structural model and degree of variance explained by the dependent variables, the “intention” construct instead of the “behavior” construct was used.

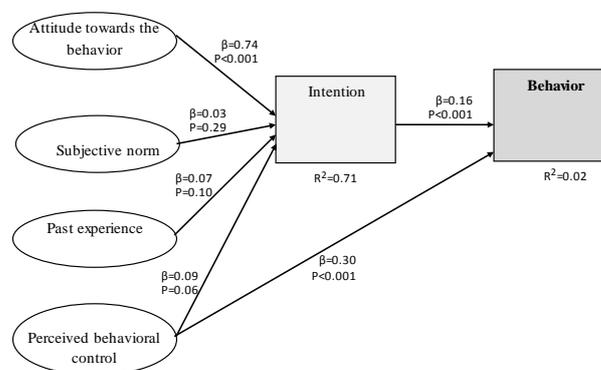


Fig. (2). The standardized regression coefficients of the TPB questionnaire based on the behavior construct.

The overall results of the model for public sector service providers are presented in Fig. (3) and Table 3. The results of the fitness of the model showed that the associations between attitude towards the behavior and intention as well as between perceived behavioral control and intention were confirmed as significant at the level of 5%, whereas the associations between subjective norm and intention as well as between past experience and intention were not significant at the level of 5%. Furthermore, the Effect Size (ES) value revealed the strongest association to be between attitude towards behavior and intention. As shown by the overall quality indices, the model of public sector service providers was well fitted to the data. The coefficient of determination (R^2) was used to assess the quality of the structural model and the degree of the variance explained by the dependent variables (*i.e.*, “intention”). Accordingly, this model remarkably explained “intention”, and the overall validity of the model was confirmed ($R^2=0.71$).

Also, the overall results for the private sector service providers are given in Fig. (4) and Table 3. The results of the fitness of the model showed that all the tested associations, *i.e.*, the associations between attitude towards the behavior and intention, between subjective norm and intention, between perceived behavioral control and intention, and between past

experience and intention, were significant and approved at the level of 5%. The SE demonstrated the strongest association to be between perceived behavioral control and intention. As can be seen from the overall quality indices of the model Table 4, this model was well fitted to the data. As demonstrated by the coefficient of determination (R^2), this model moderately explained the intention and the overall accuracy of the model was confirmed ($R^2=0.25$).

Moreover, the overall results for the charity sector service providers are presented in Fig. (5) and Table 3. The results of the fitness of the model indicated that the associations between perceived behavioral control and intention as well as between past experience and intention were approved as significant at the level of 5%, whereas the associations between attitude towards the behavior and intention as well as between subjective norm and intention were observed to be insignificant. Also, the SE showed the strongest association to be between perceived behavioral control and intention. As shown by the overall quality indices, this model was well fitted to the data. The coefficient of determination (R^2) showed that this model remarkably explained the intention and the overall accuracy of the model was confirmed ($R^2=0.32$).

Various indices have been designed to assess the validity of the models, the importance of which is reported in Table 4.

Table 1. The evaluation indices for the convergent validity of the TPB according to service providers.

Service providers	Construct	Items	Standard factor loadings	Cronbach's alpha	CR	AVE
Public	Intention	Item 1	0.681	0.814	0.879	0.646
		Item 2	0.834			
		Item 3	0.86			
		Item 4	0.829			
	Attitude towards the behaviour	Item 1	0.749	0.852	0.901	0.695
		Item 2	0.849			
		Item 3	0.873			
		Item 4	0.857			
	Subjective norm	Item 1	0.803	0.901	0.931	0.773
		Item 2	0.894			
		Item 3	0.904			
		Item 4	0.912			
	Behavioural control	Item 1	0.728	0.869	0.9111	0.721
		Item 2	0.872			
		Item 3	80.99			
		Item 4	0.887			
	Past experience	Item 1	0.616	0.844	0.878	0.426
		Item 2	0.745			
		Item 3	0.681			
		Item 4	0.718			
Item 5		0.683				
Item 6		0.641				
Item 7		0.381				
Item 8		0.473				
Item 9		0.773				
Item 10		0.752				

(Table 1) contd....

Service providers	Construct	Items	Standard factor loadings	Cronbach's alpha	CR	AVE
Private	Intention	Item 1	0.642	0.763	0.85	0.588
		Item 2	0.792			
		Item 3	0.843			
		Item 4	0.776			
	Attitude towards the behaviour	Item 1	0.78	0.834	0.89	0.669
		Item 2	0.843			
		Item 3	0.854			
		Item 4	0.791			
	Subjective norm	Item 1	0.86	0.909	0.936	0.785
		Item 2	0.905			
		Item 3	0.92			
		Item 4	0.858			
	Behavioural control	Item 1	0.806	0.808	0.918	0.737
		Item 2	0.899			
		Item 3	0.865			
		Item 4	0.859			
	Past experience	Item 1	0.604	0.814	0.862	0.421
		Item 2	0.718			
		Item 3	0.681			
		Item 4	0.766			
Item 5		0.743				
Item 6		0.665				
Item 7		0.104				
Item 8		0.508				
Item 9		0.736				
Item 10		0.689				
Charity	Intention	Item 1	0.795	0.893	0.927	0.76
		Item 2	0.907			
		Item 3	0.913			
		Item 4	0.866			
	Attitude towards the behaviour	Item 1	0.836	0.89	0.924	0.752
		Item 2	0.878			
		Item 3	0.896			
		Item 4	0.856			
	Subjective norm	Item 1	0.805	0.891	0.925	0.755
		Item 2	0.906			
		Item 3	0.891			
		Item 4	0.871			
	Behavioural control	Item 1	0.911	0.952	0.966	0.875
		Item 2	0.935			
		Item 3	0.95			
		Item 4	0.945			
	Past experience	Item 1	0.727	0.829	0.871	0.439
		Item 2	0.732			
		Item 3	0.706			
		Item 4	0.784			
Item 5		0.611				
Item 6		0.733				
Item 7		0.097				
Item 8		0.612				
Item 9		0.714				
Item 10		0.637				

Table 2. The evaluation index (Fornell and Larcker) for divergent validity of the questionnaire according to service providers.

Service providers	Construct	Intention	Attitude towards the behaviour	Subjective norm	Behavioral control	Past experience
Public	Intention	0.804				
	Attitude towards the behaviour	0.833	0.833			
		p-value<0.001				
	Subjective norm	0.588	0.668	0.879		
		p-value<0.001	p-value<0.001			
	Perceived behavioral control	0.482	0.494	0.568	0.849	
p-value<0.001		p-value<0.001	p-value<0.001			
Past experience	0.407	0.423	0.278	0.32	0.653	
	p-value<0.001	p-value<0.001	p-value<0.001	p-value<0.001		
Private	Intention	0.767				
	Attitude towards the behaviour	0.15	0.818			
		p-value = 0.006				
	Subjective norm	0.14	0.639	0.886		
		p-value = 0.011	p-value<0.001			
	Perceived behavioral control	0.409	0.072	0.039	0.858	
p-value<0.001		p-value = 0.194	p-value = 0.482			
Past experience	0.272	0.186	0.085	0.229	0.649	
	p-value<0.001	p-value<0.001	p-value = 0.122	p-value<0.001		
Charity	Intention	0.872				
	Attitude towards the behaviour	0.072	0.867			
		p-value = 0.193				
	Subjective norm	0.057	0.631	0.869		
		p-value = 0.303	p-value<0.001			
	Perceived behavioral control	0.304	0.01	0.038	0.935	
p-value<0.001		p-value = 0.857	p-value = 0.494			
Past experience	0.288	0.014	0.008	0.348	0.662	
	p-value<0.001	p-value = 0.806	p-value = 0.883	p-value<0.001		

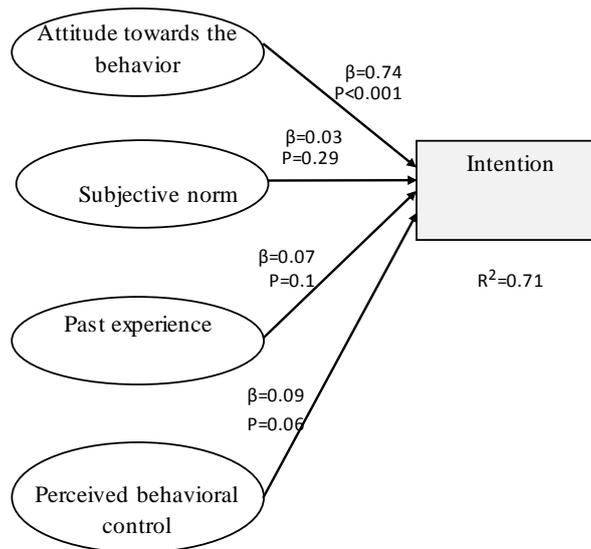


Fig. (3). The standardized regression coefficients of the constructs for the public sector service providers.

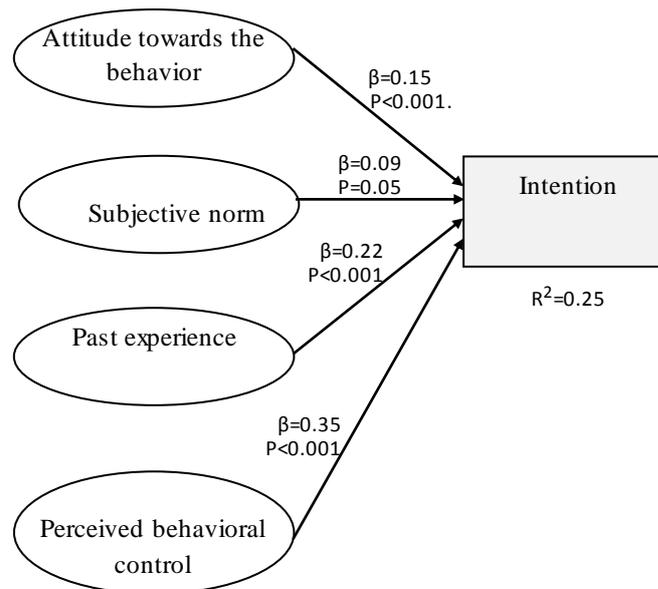


Fig. (4). The standardized regression coefficients of the questionnaire for the private sector service providers.

Table 3. The non-standardized regression coefficients and ES of the TPB constructs for different studied service providers.

Type of service providers	Constructs	Non-standardized coefficient value	SD	P-value	ES
Public	Attitude towards the behavior → Intention	0.741	0.049	<0.001	0.618
	Subjective norm → Intention	0.03	0.055	0.293	0.018
	Perceived behavioral control → Intention	0.086	0.054	0.056	0.043
	Past experience → Intention	0.069	0.054	0.104	0.029
Private	Attitude towards the behavior → Intention	0.151	0.054	0.003	0.029
	Subjective norm → Intention	0.09	0.054	0.049	0.014
	Perceived behavioral control → Intention	0.349	0.052	<0.001	0.146
	Past experience → Intention	0.221	0.053	<0.001	0.062
Charity	Attitude towards the behavior → Intention	0.045	0.055	0.207	0.01
	Subjective norm → Intention	0.085	0.054	0.059	0.026
	Perceived behavioral control → Intention	0.497	0.051	<0.001	0.273
	Past experience → Intention	0.092	0.054	0.046	0.027

Table 4. The goodness of fit indices of the TPB constructs according to service providers.

Type of service providers	Index	The obtained index value	The acceptable value
Public	Average path coefficient (APC)	0.231 (p-value<0.001)	acceptable if P<0.001
	Average R-squared (ARS)	0.707 (p-value<0.001)	acceptable if P<0.001
	Average adjusted R-squared (AARS)	0.704 (p-value<0.001)	acceptable if P<0.001
	Average block VIF (AVIF)	1.763	acceptable if ≤ 5, ideally ≤ 3.3
	Average full collinearity VIF (AFVIF)	2.461	acceptable if ≤ 5, ideally ≤ 3.3
	Tenenhaus GoF (GoF)	0.679	small ≥ 0.1, medium ≥ 0.25 large ≥ 0.36
	Sympson's paradox ratio (SPR)	1	acceptable if ≥ 0.7, ideally = 1
	R-squared contribution ratio (RSCR)	1	acceptable if ≥ 0.9, ideally = 1
	Statistical suppression ratio (SSR)	1	acceptable if ≥ 0.7
Nonlinear bivariate causality direction ratio (NLBCDR)	1	acceptable if ≥ 0.7	

(Table 4) contd....

Type of service providers	Index	The obtained index value	The acceptable value
Private	Average path coefficient (APC)	0.203 (p-value<0.001)	acceptable if P<0.001
	Average R-squared (ARS)	0.251 (p-value<0.001)	acceptable if P<0.001
	Average adjusted R-squared (AARS)	0.242 (p-value<0.001)	acceptable if P<0.001
	Average block VIF (AVIF)	1.296	acceptable if <= 5 ideally <= 3.3
	Average full collinearity VIF (AFVIF)	1.443	acceptable if <= 5 ideally <= 3.3
	Tenenhaus GoF (GoF)	0.401	small >= 0.1, medium >= 0.25 large >= 0.36
	Sympson's paradox ratio (SPR)	1	acceptable if >= 0.7, ideally = 1
	R-squared contribution ratio (RSCR)	1	acceptable if >= 0.9, ideally = 1
	Statistical suppression ratio (SSR)	1	acceptable if >= 0.7
	Nonlinear bivariate causality direction ratio (NLBCDR)	0.750	acceptable if >= 0.7
Charity	Average path coefficient (APC)	0.180 (p-value<0.001)	acceptable if P<0.001
	Average R-squared (ARS)	0.316 (p-value<0.001)	acceptable if P<0.001
	Average adjusted R-squared (AARS)	0.307 (p-value<0.001)	acceptable if P<0.001
	Average block VIF (AVIF)	1.416	acceptable if <= 5, ideally <= 3.3
	Average full collinearity VIF (AFVIF)	1.376	acceptable if <= 5 ideally <= 3.3
	Tenenhaus GoF (GoF)	0.475	small >= 0.1, medium >= 0.25 large >= 0.36
	Sympson's paradox ratio (SPR)	0.750	acceptable if >= 0.7, ideally = 1
	R-squared contribution ratio (RSCR)	0.971	acceptable if >= 0.9, ideally = 1
	Statistical suppression ratio (SSR)	1	acceptable if >= 0.7
	Nonlinear bivariate causality direction ratio (NLBCDR)	1	acceptable if >= 0.7

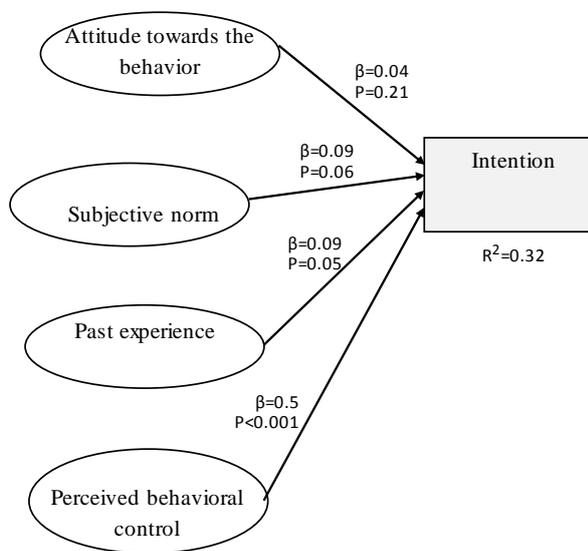


Fig. (5). The standardized regression coefficients of the questionnaire for the charity sector service providers.

4. DISCUSSION

The study findings revealed that the construct of “behavior” was poorly explained in data analyses (R²=0.02). Hence, the construct of behavior was removed from the conceptual model and the model was developed through adopting other constructs and considering the construct of intention as a dependent variable.

In this study, the results of the fitness of the model in the

public sector showed that this model was well fitted (R²=0.71) and significant associations were only observed between the constructs of attitude towards the behavior and perceived behavioral control and the construct of intention. Furthermore, the greatest association was obtained between the constructs of attitude towards the behavior and intention in the public sector. This means that the studied employees with a more positive attitude and greater perceived behavioral control had enhanced intention towards selecting the public sector. Moreover, the

results of the fitness of the model in the private sector indicated the moderate fitness of the model to the data ($R^2=0.25$) and significant associations existed between all theoretical constructs of the planned behavior and intention and the strongest association was obtained between perceived behavioral control and intention. Finally, the results of the fitness of the model in the charity sector revealed the model to be well fitted to the data ($R^2=0.32$) and the associations between perceived behavioral control and past experience and the construct of intention were significant. Also, the strongest association was between the constructs of perceived behavioral control and intention. Therefore, it seems that the models used to predict the intention to select service providers in each of the three public, private and charity sectors were well fitted to the present data.

Alipouri's study on predicting the behavior of the managers at SUMS in terms of the evidence-based decision-making indicated that the TPB model significantly and moderately defined the constructs of intention and behavior, respectively [14]. Other studies, including Cote's study on clinical decision making with the use of the TPB in nurses [15] and Kortteisto's study on physicians [16] indicated that the model was well fitted and could predict the behavior of the participants. The findings differences may be caused by heterogeneous studied populations and samples.

As noted above, the strongest association was observed between the constructs of behavioral control and intention in selecting private and charity service providers. In other words, due to significant associations of all constructs in the private model with the intention, the employees were more willing to select the private sector, and higher perceived behavioral control had the greatest impact on the selection of the private sector. This also came true in terms of the charity sector. As previously mentioned, the charity sector at SUMS has surpassed the public sector in terms of quality of services and facilities and provides services of lower costs in comparison to the private sector. Accordingly, it is structurally more similar to the private sector than the public sector and this explains the similarity of the results in these two sectors.

As mentioned earlier, the modeling results in the charity sector also showed that the model was well fitted and the significant associations were observed between the constructs of perceived behavioral control and past experience with the intention construct in selecting the charity sector. Additionally, the strongest association was between perceived behavioral control and intention. This means that the studied employees selected the charity sector with higher perceived behavioral control and greater satisfaction based on their past experience.

Other findings indicated that the greatest association in selecting public sector service providers was between the constructs of attitude towards the behavior and intention. Moreover, the constructs of attitude towards the behavior and perceived behavioral control had significant associations with intention. These findings suggest that more positive attitudes held by the employees at SUMS towards the quality of services, reputation of professors and physicians, and a sense of belonging to the SUMS-affiliated public hospitals had influenced their intention to select this service provider.

However, other findings revealed no significant association between the constructs of subjective norm and intention and the constructs of past experience and intention. Accordingly, it seems that the employees would be less willing to reselect public healthcare centers if having past experience of hospitalization in them.

In general, it can be claimed that the attitude of the participants was the most effective predictor of their intention to select public sector service providers. In addition, the perceived behavioral control and past experience can also be considered as the most effective factors in predicting the intention of the employees to select the private and charity sectors. In a similar vein with the findings of the current study, Hosseini Sarkhosh *et al.* (2016) in their study found that attitude towards knowledge sharing, subjective norm, and perceived behavioral control were three affecting factors in predicting knowledge sharing among employees [17]. Chennamaneni *et al.* (2012) and So and Bolloju (2005) also introduced attitude as the most influential factor compared with other predictors of intention to share knowledge [18, 19]. The results of two recent studies are consistent with the results of the present study with respect to selecting the public sector.

This study, similar to other studies, had some limitations, including its cross-sectional design and the use of a self-report questionnaire to predict the studied employees' intention to select healthcare service providers. Thus, the results should be interpreted more conservatively.

CONCLUSION

With regard to the appropriate goodness of fit for the studied model in the study population, this theory can be considered as a good model to predict employees' intention to behave in selecting healthcare service providers. Given that the employees' positive attitude enhances their intention towards selecting the public sector, some recommendations are proposed as follows: building trust among the employees and creating an atmosphere of empathy and respect in order to facilitate employees' use of services. Also, perceived behavioral control was largely influential in the selection of the private and charity sectors. Therefore, various social marketing approaches with an emphasis on environmental analyses, knowledge of the market and target groups as well as selection of an appropriate marketing mix along with strategies to modify tariffs and to set payable tariffs are essential to be used in these two sectors in order to create a competitive environment among different service providers.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The present study was approved by the Ethics Committee of Shiraz University of Medical Sciences, Iran (Code: IR.SUMS.REC.1395.S697).

HUMAN AND ANIMAL RIGHTS

Not applicable.

CONSENT FOR PUBLICATION

Informed consent was obtained from all employees participated in the study.

AVAILABILITY OF DATA AND MATERIALS

The data from this study will be made available by the author upon reasonable request.

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CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest, financial, or otherwise.

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