

Effects of Supply Chain Management on Tourism Development by using Smart Security Methods: A Case Study of Shanghai

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Abstract- The paper aims to investigate the possible relationship between Tourism Supply Chain and Strategic Partnership, read as a way to reduce and better manage the complexity in Tourism Industry. For this purpose we examined creating tourist security using a smart wristband for Shanghai tourists. The sampling method is simply random and via Cochran's formula. The sample size is 300 people. All questions have been used in the form of Likert Scale for data collection. The content validity and Cronbach's alpha coefficient have been used to determine the survey validity, which equals 0.91. LISREL software has been used for data analysis and hypothesis testing. Results showed that using technology (wristband) and the tourist police are effective in the development of tourism and improved tourism facilities.

Keywords: *Security, supply chain management, tourist police, tourism development, tourist spot*

1. Introduction

Tourism provides new patterns which can change and arrange people's personality traits and living environments [1-5]; also, they represent the social system, values and beliefs of people who reside in that land. Tourism is one of the world's leading industries and a tool for wide economic development [6, 7]. And security (against crimes and terrorism) has a profound effect on tourism and navigation of economic benefits. In addition, when government authorities care about tourism and tourism affairs are important to them, they show more interest in meeting the needs of different local cultures and provide better services to the population [8]. Therefore, the purpose of the present research was to create tourist security in tourist's destination and develop tourism using smart security wristband. Many authors worked

recently on tourism destination brand perception [9-15].

Service supply chain management is also a tool for forecasting, planning, implementing, and controlling the process of the supply chain with the objective to satisfy customer requirements in an efficient manner. It involves coordinating, integrating and controlling the product, information and finance flows both within the organization and among the partners. In the past, firms were implementing SCM with the purpose of achieving operational efficiency and cost reduction. In today's business, however, firms are looking for leveraging competitive advantage to deliver better customer service. In fact, the integrated supply chain management fulfils the firm's requirement. The purpose of the supply chain in a manufacturing industry is reducing cycle time, inventory, and logistics costs. Tourism and tourism services and facilities have been studied in terms of tourism effects and the satisfaction of tourists from tourism destinations and facilities. Of course, this study is related to the extent to which tourists understand the destination of tourism (studied by South Africa in Cape Town), which can be generalized.

2. Research Literature Tourism

In this paper, tourism development is a dependent variable and by considering the relationship between independent variables, it can reinforce this variable. Independent variables such as security [16], technology [17] tourist police, and facilities and services have a direct and an indirect impact on tourism development [18]. The presented design in this research is the smart security wristband which is one of a kind and by using modern technology

and in order to create security, it is provided for tourists of any region as one of the facilities and services.

In recent years, there have been a lot of studies on security and its effect on the tourism industry [19]. Many of these studies show reduced numbers of tourists due to security dangers and threats. Many researchers have warned about the serious probable effect of natural calamities or humanistic factors on the tourism industry. Natural calamities such as earthquake, flood and also humanistic threats such as Political turmoil, riot, terrorism, revolution, crime and war have negative effects on customer behavior, especially when it is shown in mass media [12]. In their studies, Piezam and Mansfield analyzed the effect of security events on the travel of tourists and their choice of destination. They believe security events such as crime, war and conflict, terrorism, and urban turmoil can have a major impact on the lack of attraction of tourism destination and the lack of tourism in that destination [20]. In studying the state of Hawaii, Fuji and Mac also found out that the increase of tourists has had a major impact on the home robberies and Muggings [6].

Steiner believes that the most important reason for the lack of revenue is the lack of security against social and mental threats and of efficient servicing, and in order to improve this condition, he considers focusing on the security of tourism necessary [21]. Also, in a paper, Hall has analyzed tourism in the third world countries and some of the most vital tourism problems such as lack of mental and life security and has called for the attention of third world countries towards solving these crises via creating tourist police [20].

With the conceptual model provided and by considering the studies and analyses of other researchers, we can conclude that tourism development is possible in a region that has tourism potential when other independent variables are present. With this view, if the increase in security goes together with development, in terms of tourism facilities and services, it can have more effect on the tourism development of that region[22].

Moreover, the variable of security is not possible unless it comes with technology and service of the tourist police, which in this research, is the idea of security wristband that is provided with modern technology in order to create security and sense of security in foreign tourists that intend to visit their desired tourist spot, and its effect is the creation of real security and the tourist's advertising after going back to his/her homeland which eventually results in tourism development [23].

Therefore, the researcher has analyzed the approval and execution of the smart security wristband project, which is about modern tech in Shanghai, China and the results of this research and methodology are mentioned. The city of Shanghai has advantages such as social exchange between tourists and residents of the city and raising the cultural level and with reduction of social inequality and expansion of social justice urban facilities, it is uniformly provided and with attracting qualified forces in tourism section and according to providing cultural products and local tourism, having the biggest commercial port and being connected with international waters attracting foreign investors creating jobs and exchange income for the country increasing, the ability of being the top center of tourism efficient identification of industries and ecological potentials numerous entertainment centers, no heavy traffic in the city and numerous and always accessible public transportation vehicles and having the biggest subway in the world, supporting tourism projects. Besides, it makes the number of tourists compared to previous years has been and lead to the ability to become the biggest tourism hub with first rank has been, the proposed project Security wristbands to ensure the safety of tourists that researchers examined how the acceptance by tourists and implementing it has done in Shanghai [23]. Details of the plan are as follows:

- Has a very comfortable and light design and is installed on the wrist and is easy to carry.
- Information and details and locations of entertainment centers, transportation routes, public transportation, subway and their time are

installed on the security wristband and are easy to access.

-Has a pager that is connected to all connection satellites of every region's police and is under a consistent control by the tourist security police.

- In case of any problem for the tourist, the nearest police will be available to him/her.

- Has the ability to install voice translation.

- Creates security and a sense of security among tourists.

- Creating jobs and exchange income for the country

- Increasing the number of tourists compared to previous years

- Used by all ages and genders

-Also, if the tourist is lost, particularly seniors and children, the security wristband can be very handy.

- Creates a high sense of security and after execution, attracts tourists and improves tourism industry in the region.

- Attracting foreign investors

3. Introducing Shanghai

Shanghai is a city east of China that is located on the shore of the Yang Tese Kiang River, a vibrant city. This city is always improving; it is a city in which many great companies of the world have headquarters (Fig.1-3). Shanghai is different from Beijing in many aspects. In this city, you cannot find historic royal palaces. Instead, you see tall towers, huge city centers and modern urban architecture. Shanghai is the cross point of the world of the west and east, a city that keeps up with the most advanced technology and fashion. Shanghai is one of the top biggest ports of the world and it is the first and the biggest port of container transportation. In the beginning, this city was a fishing dock and its growth began since the late 19th century

and early 20th century. Behind this super modern city, you can find the old Shanghai; Narrow and crowded alleys, historic temples, original Chinese gardens and traditional restaurants. In Shanghai, you can go from the top of technology to the traditional environment of Chinese culture in a matter of minutes. This city can be called China's economic capital [24].

3.1.An overview of views and theories

One of the scientific theories that has gone on to predict and explain the issue of security and tourism and effective factors on insecurity, is introduced by Billy in 1982. One of the issues highlighted in this theory is the effect of bad publicity. For example, propagation of the high rates of crime in a country leads to the lack of tourists in that country. In addition, the increase of the unit police force in tourist spots that is to ensure the security of tourists will cause the reduction of tourists' revisit of that spot. This is because the presence of many police officers in a particular place is considered as a sign of insecurity [25].

In analyzing the phenomenon of the sense of security, researches have categorized three theoretical approaches. The first approach with the title "vulnerability" includes physical, psychological and economic vulnerability. The second approach is with the title "crime experience", either directly (as the victim) or indirectly (via friends, social contacts and/or the media). The third approach is focused on the social and physical environment of the region as the probable sources of a sense of insecurity (like emphasizing physical disturbance and the lack of social unity as the source of fear and insecurity). This security approach can have a major impact on the tourists in tourist spots.

Another theory that is introduced in relation to security and tourism is the hierarchy of needs by Maslow (1970). This theory states that people need to have their basic needs met and, at the same time, they even try to meet their higher needs like searching for love, confidence, status or boosting their spirit. It is natural that safety and security concerns put the tourists in

numerous dangers [3]. Considering that security and its sense are in the second level of Maslow's hierarchy, not meeting this need will increase insecurity and fear among tourists and will turn the joy of travel and leisure into concern and worry.

3.2. Tourism and world security

The terroristic attack of 9/11 on the assets of Hotel No icon of Hotel Heritage and etc., made the scientists to change their stand from pure scientific achievements and broaden their perspective to employ different means and tools to fight against terrorism and to keep hospitality industry [2].

Generally, until there is no security, no travel will take place and talking about tourism will be useless. In fact, anytime there is a suitable basis for security on an international level, people will travel and after those activities related to tourism will flourish because if tourists feel insecure about a spot, they will never go there. Security and tourism are parameters of an equation that are directly related to each other. In other words, just as security is one of the important factors of tourism development, flourishing of tourism in a region and the commute of tourists in a spot will create security (as shown in Fig. 4).

4. The research hypotheses

1. The technology (of the wristband) has an effect on safety
2. The presence of tourist police has an effect on safety
3. The technology (of the wristband) has an effect on the development of tourism
4. The presence of tourist police has an effect on the development of tourism
5. Safety in tourism affects the development of facilities and tourist service
6. Safety affects the development of tourism

7. Increase in facilities and services affects the development of tourism

5. Methodology

5.1. Research method

Structural equation modeling will be used in the data analysis of this study in inferential statistics level. Generally, structural equation modeling is a multivariate and strong technique of multivariate regression family and in clear word is an expansion of the general linear model which allows researchers a collection of regression equations to be tested simultaneously. Structural equations modeling is a comprehensive statistical approach to test the hypotheses are about observed and hidden relationships that are named as structural analysis of covariance, causative modeling and also LISREL. However, the dominant term is structural equation modeling. A structural equation model, in fact, is a specified causative structure among a set of invisible structures, each of them to be measured by a set of markers (observed variables) and it can be considered especially with structural equations modeling test in terms of value in a society as one of the last achievements of statisticians at this part of time, and is considered statistical models for examining linear relationship between hidden variables (unobserved) and visible variables (observed) or research questions. LISREL software is used to test the model. The reason for choosing this method is that LISREL provides the possibility use of several visible variables as an introducer of a hidden variable and makes it more effective the measure of hidden variables. In this study, the structural relations model is used to analyze the data. SPSS and LISREL were used to analyze data and test hypotheses and other analyses in this research.

Different kinds of fitting indexes model

More than thirty fitting indexes model has been introduced which most of them are reported in LISREL output. In spite of the large number of

these indexes, most writers agree that these indexes can be divided into three main groups although less agreement can be seen about the usefulness of each of them. Three general groups of the fitting indexes model include:

Absolute fit indexes

Comparative fit indexes

Thrifty fit indexes

5. 2. Data Analysis

Generally, the research hypotheses are tested by the modeling technique of structural equations and with the help of LISREL software. Therefore, first, the data are assessed for normality. Then, CFA is conducted for every survey. Lastly, the model related to the research hypotheses is executed.

Normality Assessment of the Data

In normality assessment of the zero hypothesis and counter, it is defined as follows:

$$\begin{cases} H_0: \text{Data are normally distributed.} \\ H_1: \text{Data are not normally distributed.} \end{cases}$$

According to Tables 1 and 2, the dependent variable of tourism development is normal in the error level of 0.05%. Similarly, another mediator and independent variables were analyzed; therefore, the normality hypothesis of the data is tested on a significance level of 5% by the Kolmogorov-Smirnov test. Hence, the zero hypothesis, based on the normality of data is accepted and in other words, the research data are normal.

5. 3. Confirmatory Factor Analysis

The measurement model of research variables

Figures 5 and 6 show the CFA results of the factors and indices related to the research variables. This is done using LISREL.

5. 4. Data Analysis

In standard approximation mode, factor loadings of the model show the effect of each variable or items in explaining the variance of variable scores or the main factor. In other words, factor loading shows the correlation between each observable variable (survey question) and latent variable (factors). For instance, factor loading of the first question in the modern technology variable is 0.89. In other words, this question explains about 11% of the modern technology variance. The error value is 0.22 (a variance value that cannot be explained by the first question, obviously the lower the error value, the higher the determination and correlation coefficients between the question and the related factor). The value of determination coefficient is a number between 0 and 1, which the closer it gets to 1, the explanation of the value of variance goes higher.

The next significance output (Model in statistical significance) of the given coefficients and parameters shows the measurement model of research variables that all the given coefficients have become significant. The significance test values higher than 1.96 or lower than -1.96 show significance of relations. Two outputs of LISREL software are given (Model of standard approximation at above and model of significance coefficients below).

5. 5. FCA of survey structures related to the dependent research variable

As it is shown in Fig. 7, all considered indices, for all questions related to model variables, have a correlation above 0.3. The factor loadings of each question of dependent research variables. For instance, the factor loading of the first question in the security variable is 0.36. In other words, this question explains about 64% of the security variance. The value of 0.87 is also the error value (a variance value that cannot be explained by the first question, obviously the lower the error value, the higher the

determination and correlation coefficients between the question and the related factor). Similarly, it can be explained for other variables.

A significant number model is presented to know whether the relationship between structure and dimension and the relationship between the dimension and index is significant or not. Significance number model or T-value shows the degree of significance in each parameter and if its value is higher than the absolute value of 1.96, model parameters are significant. Considering the fact that all the given numbers in the significance model have values higher than 1.96, the validity of measurement structures of the related variables on the 0.05 level of significance is confirmed. This model is shown in Fig. 8.

5. 6. Testing the research conceptual model

In the research model, the k-value of 2 has the 3.74 degree of freedom which is a desirable value. Also, the value of the Root Mean Square Error of Approximation (RMSEA) is 0.08. The Comparative Fit Index (CFI), Incremental Fit Index (IFI), Normalized Fit Index (NFI), and Non-normed Fit Index are all above 0.9; hence, the model shows great fit and is confirmed.

Fig. 9 shows the significant numbers and standardized approximate of the structural equations model for the research conceptual model, based on the relationship between independent and dependent variables.

6. Discussion

Based on the results, it can be generally said that the sense of security of tourists is almost at high levels. Therefore, the desire to revisit among tourists is also high. Based on the studies and given to the high numbers of travelers in recent years, tourism has been managed to introduce itself as one of the largest industries in

the world. Increasing the number of tourists will cause improving business and increase the income of the companies and institutions that are active in this area. Developing tourism in countries is an effective factor to increase the revenue of different groups of people, reducing unemployment and economic and social prosperity. Therefore, given to obtained results in the test of hypothesis 1 path coefficient of hiding interior the use of security wristband technology on the interior variable of foreign

tourists security is equal to $\beta_1 = 0.56$ and by increasing a unit of security wristband technology, variable of foreign tourists security, will be increased to 0.56 unit. Therefore, according to Table 7, it can be stated that there is a significant relationship between variables of security wristband technology and security of foreign tourists ($A \rightarrow C$), and null hypothesis can be rejected, then given to the fact that protecting the security of tourists by using new technologies can guarantee the development of tourism industry there should be pay more attention to the development of tourism industry, increasing the security system of the state, increasing the sense of security of tourist destination in order to create a good intention to travel and also through the use of modern equipment like a pager, map and detector etc. provide positive views in the minds of tourists toward reducing risk and hazardous of tourism travel.

Today, security is considered the most important factor in the formulation of tourism development strategies in the world and is directly related to the tourism issue. The beneficial industry of tourism is directly related to security at different national and regional levels and any damages at different levels caused irreparable damages to the industry [25-30]. Therefore, given the obtained results in the test of hypothesis 2, the path coefficient of the hiding interior of tourism police on the interior variable of foreign tourists security is equal to $\beta_1 = 0.41$ and by increasing a unit of tourism police, variable of foreign tourists security will be increased to 0.41 unit. Therefore, according to Table 7, it can be stated that there is a

significant relationship between variables of tourism police and security of foreign tourists ($B \rightarrow C$), and null hypothesis can be rejected. Besides, to increase the security of foreign tourists, more attention must be given to the presence of special police of tourists' security in specific areas as well as the use of new technologies. Then, one of the issues that must strongly be emphasized is security, because comfort, convenience and security are the most important issues that attract tourists to different parts of the world.

Security is an effective factor in the development and promotion of tourism in a country. Security is the first and the most essential need of a tourist. Comfort, convenience and security are issues and factors that may call human for tourism. Developing the tourism industry in a country shows the stability of national security and one of the prosperity reasons and tourism development in the country is to provide tourism security [19]. Therefore, given the obtained results in test of hypothesis 3 and according to Table 7, it can be stated that since the path coefficient of technology variable on security is equal to 0.56 and path coefficient of security variable on facilities and services is equal to 0.83 and path coefficient of facilities and services variable on tourism development is equal to 0.53, then, the indirect impact of technology variable of security wristband on tourism development variable ($A \rightarrow C \rightarrow D \rightarrow E$), is equal to $0.56 * 0.83 * 0.53 = 0.24$. Therefore, there is a significant relationship between these two variables and the null hypothesis can be rejected. Hence, for the development of tourism, more attention must be given to security control and tourism police supervisions. Using security technology of tourism police induces tourists to repeat tourism trips and also by providing police protection structure for the safety of tourists. Therefore, based on the researches if tourists have a sense of insecurity to the destination, they would never travel to that place. The prosperity of tourism in a region and movement of tourists in a destination causes security and tourism development is an effective factor against poverty and will increase the income of

different parts of people, reducing unemployment and economic prosperity and subsequently improving the quality of people's lives and increases social welfare.

Development of tourism in a region and movement of tourists in a destination will bring security in that place. Therefore, the stable development of the tourism industry and security are closely related together [14]. Therefore, given the obtained results according to Table 7 for examining the indirect impact of tourism police variable on tourism development, it can be stated that since the path coefficient of tourism police variable on a security is equal to 0.41 and the path coefficient of security variable on facilities and services is equal to 0.83 and path coefficient of facilities and services variable on tourism development is equal to 0.53. Then, the indirect impact of tourism police variable on tourism development variable ($B \rightarrow C \rightarrow D \rightarrow E$), is equal to $0.41 * 0.83 * 0.53 = 0.18$. So, given the fact that the sense of security is mental, for development of tourism should pay more attention to create appropriate mental knowledge in tourists toward security facilities of the tourism travel destination country and also necessity and importance of special police of tourists security in specific areas. Because, as the researchers say the development of tourism industry in any country shows the stability of national security in that country and also tourism of a country will be flourished when more attention is given to security control and tourism police supervisions for the security of tourists. Tourism destinations are spread out all over the country, if security in these regions provided through security control and supervisions of tourism police, the coefficient of national security of that country will be increased and moreover; arrival of foreign tourist to a country does not threaten national security, it also helps to consolidate too [13].

Given to obtained results in the test of hypothesis 5 the path coefficient of hidden interior security for foreign tourists on the interior variable of development of facilities and services of tourism is equal to $\beta_1 = 0.83$ and by

increasing a unit of security for foreign tourists, development of facilities and services of tourism will be increased to 0.83. Therefore, according to Table 7, it can be said that there is a significant relationship between tourism police variables and security of foreign tourists (B→C) and the null hypothesis can be rejected. So, to develop tourism should pay more attention to increase services and facilities of tourism, reducing security weaknesses, increasing security facilities besides the tourism social facilities and increasing tourism and leisure facilities in the country. Based on the studies done in this regard, people will go to trip by providing proper preparation throughout the international community and following it, the activities related to tourism will be prospered and if tourists have an insecure sense about a destination and if there are deficiencies and weaknesses in tourism destination, they will never travel there. Security and tourism are parameters of one equation and they have a direct ratio with each other and the purpose of security is to access welfare, comfort and providing specific facilities. Therefore, the lack of documented plans of target development, weaknesses of superstructures and tourism facilities, weak advertising, lack of desirable roads to access tourist attractions in the region, and other weaknesses prevents the growth and prosperity of tourism in the country. Obviously, improving each of the competitive factors can lead to an increase in the competitive advantage of the country.

Given the obtained results and based on Table 7 for examining the indirect impact of security variable for foreign tourists on tourism development, it can be said that since path coefficient of security variable on facilities and services is equal to 0.41 and the path coefficient of facilities and services variable on tourism development is equal to 0.83. Therefore, the indirect impact of the security variable for foreign tourists in tourism development (C→D→E) is equal to $0.83 \times 0.53 = 0.43$. Therefore, for the development of tourism, there must be more attention to the safety of foreign tourists on tourism development. Because among the various factors that affect tourism

development, it can be said that security is the most significant factor for tourism development and tourism industry development in each country shows the security stability in that country. Therefore, it can be stated that security is considered as the most important and the fundamental principle for collecting the strategy of tourism development in the world.

Given the obtained results in a test of hypothesis 7 path coefficient of the hidden interior of facilities and services as one of the foundations of tourism on interior variable of tourism development is equal to $\beta_1 = 0.53$ and by increasing a unit of facilities and services as one of the foundations of tourism, the tourism development variable will be increased to 53 Unit. Therefore, according to Table 7, it can be stated that there is a significant relationship between variables of facilities and services as one of the foundations of tourism and tourism development variable (D→E) and null hypothesis can be rejected. Therefore, tourism development needs for investment in the understructures of the country and investment in understructures need security in the country. Security also provides an important role to attract the tourists (Fig. 10).

7. Conclusion

The practical implications of the study are taken both the tourists and key policymakers while dealing with the SCM and its integration with those hotels dealing with the tourism and related services. This study contributes towards the future trends in the form of integration for SCM and tourism industry. As it can be concluded from the above figures and tables, the path analysis of 7 research hypotheses is confirmed by considering the path standard coefficients and significance numbers and it shows that according to the extracted hypotheses and data gathered from the concerned sample at 0.05 significance level, the relations are as follows:

H1: According to the information from Table 6 (model finding conceptual No. 1), the effect of

using technology (security wristbands) on the security of foreign tourists is approximated at 0.56 and its t-value is higher than 1.96 (6.12). Hence, this hypothesis is confirmed in SCM. Therefore, the more technology (security wristband) is used, the more security for foreign tourists will be.

H2: According to the information from the Table 6 (model finding conceptual No. 2), the effect of tourist police on the security of foreign tourists is approximated at 0.41 which has a t-value higher than 1.96 (5.15). Therefore, this hypothesis is confirmed in SCM efficiency. As such, the more tourist police there is, the more security for foreign tourists will be.

H3: According to the information from Table 6 (model finding conceptual No. 3), the effect of using technology (security wristbands) on tourism development is approximated at 0.23 which has a t-value higher than 1.96 (3.65). Hence, this hypothesis is confirmed. Therefore, the more technology (security wristband) is used, the more tourism development will be.

H4: According to the information from Table 6 (model finding conceptual No. 4), the effect of tourist police on tourism development is approximated null which has a t-value lower than 1.96 (1.83); therefore, this hypothesis is rejected.

H5: According to the information from Table 6 (model finding conceptual No. 5), the effect of security for foreign tourists on the development of facilities and services is approximated at 0.83 which has a t-value higher than 1.96 (7.81). Hence, this hypothesis is confirmed. Therefore, the more security for foreign tourists, the more will be the development of facilities and services.

H6: According to the information from Table 6 (model finding conceptual No. 6), the effect of security for foreign tourists on tourism development is approximated null which has a t-value lower than 1.96 (1.70); therefore, this hypothesis is rejected.

H7: According to the information from Table 6 (model finding conceptual No. 7), the effect of facilities and services as one of the tourism foundations on tourism development is approximated at 0.53 which has a t-value higher than 1.96 (12.42). Therefore, the more there are facilities and services, the more tourism development will be.

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Table 1.Threats and Opportunities



Threats(WT):	Opportunities(SO):	
1- Lack of participation of locals in tourism projects 2-Destroying local traditions and customs 3-Increase of social violations with the arrival of tourists 4- Unfamiliarity of many residents with English 5- Increase in the prices of hotels, resorts and goods 6- Few numbers of active competitors in the field of tourism 7- Disregarding sanitary rules by tourists 8-Environmental threats and damaging historical and natural spots	1- Social interaction between tourists and residents of the city and improvement of the cultural level 2- Reduction of social inequality and the expansion of social justice 3- Attracting qualified forces in tourism section 4- providing cultural products and local tourism 5- Having the biggest commercial port and being connected with international waters 6- Attracting foreign investors 7- Creating jobs and exchange income for the country 8- Increasing the number of tourists compared to previous years 9- The ability of being the top center of tourism 10- Efficient identification of industries and ecological potentials 11- Numerous entertainment centers 12- No heavy traffic in the city and numerous and always accessible public transportation vehicles and having the biggest subway in the world 13- Supporting tourism projects	<div data-bbox="1224 310 1442 485" style="text-align: center;">  </div> <div data-bbox="1224 762 1442 999" style="text-align: center;">  </div> <p data-bbox="1224 1058 1398 1087">SWOT analysis</p>

Table 2. Smart security wristband project. SWOT model

Threat Points (WT)	Opportunity points(SO)
<p>WT1-Lack of participation from some tourists in the correct use of security wristband</p> <p>WT2- Since software installation must be done on the wristband, it becomes heavier and there is a chance for skin harm and treating allergies.</p> <p>WT3- Its installation on the wrist can have rejection from some people.</p> <p>WT4- There is a chance of losing it or taking it off the tourist's wrist.</p> <p>WT5-Some foreign tourists don't want to be controlled by the police consistently and show resistance in this regard.</p> <p>WT6- It is more efficient in controllable areas such as urban areas.</p> <p>WT7- It needs a manual.</p>	<p>SO1 -Has a very comfortable and light design and is installed on the wrist and is easy to carry.</p> <p>SO2- Information and details and locations of entertainment centers, transportation routes, public transportation, subway and their time are installed on the security wristband and are easy to access.</p> <p>SO3-Has a pager that is connected to all connection satellites of every region's police and is under consistent control by the tourist security police.</p> <p>SO4- In case of any problem for the tourist, the nearest police will be available to him/her.</p> <p>SO5- Has the ability to install voice translate.</p> <p>SO6- Creates security and a sense of security among tourists.</p>
	<p>SO7- Creating jobs and exchange income for the country</p> <p>SO8- Increasing the number of tourists compared to previous years</p>
	<p>SO9 -Used by all ages and genders</p> <p>SO10-Also,if the tourist is lost, particularly seniors and children, the security wristband can be very handy</p> <p>SO11- Creates a high sense of security and after execution, attracts tourists and improves tourism industry in the region.</p>
	<p>SO12 -Attracting foreign investors</p>

Table 3.Normality Assessment of the data

Test structure	Kolmogorov-Smirnov	
	StatisticsZ	p-value
Modern technology	0.967	0.325
Police	1.243	0.200
Security	1.068	0.206
Facilities and services	1.779	0.108
Tourism development	0.967	0.325

Table 4.Research concepts and factors with their equivalent in the model

Equivalent	Variable
A	Modern technology
B	Police
C	Security
D	Facilities and services
E	Tourism development

Table 5.Goodness of Fit

Fit Index	RMSEA	CFI	NFI	NNFI	IFI
Acceptable Values	$0.08 \geq$	>0.9	>0.9	>0.9	1-0
Calculated Values	0.08	0.97	0.95	0.97	0.97

Table 6.Results of model findings

Conceptual Model Hypotheses	T-value	Standard Coefficient	Result
1- Using the technology (Security Wristband) is effective on the security of foreign tourists.	6.12	0.56	Confirmed
2- The presence of tourist police is effective on the security of foreign tourists.	5.15	0.41	Confirmed
3- Using the technology (Security Wristband) is effective on tourism development.	3.65	0.23	Confirmed
4- Using the technology (Security Wristband) is effective on tourism development.	1.83	0.11	Rejected
5- Security for foreign tourists is effective on the development of Facilities and services of tourism.	7.81	0.83	Confirmed
6- Security for foreign tourists is effective on the development of tourism.	1.70	0.16	Rejected
7- As one of the foundations of tourism, facilities and services are effective on tourism development.	12.42	0.53	Confirmed

Table 7.Path Analysis

A→C	0.56
A→C→D	$0.56*0.83=0.46$
A→C→D→E	$0.56*0.83*0.53=0.24$
A→E	0.23
B→C	0.41
B→C→D	$0.41*0.83=0.34$
B→C→D→E	$0.41*0.83*0.53=0.18$
B→E	-
C→D	0.83
C→D→E	$0.83*0.53=0.43$
C→E	-
D→E	0.53

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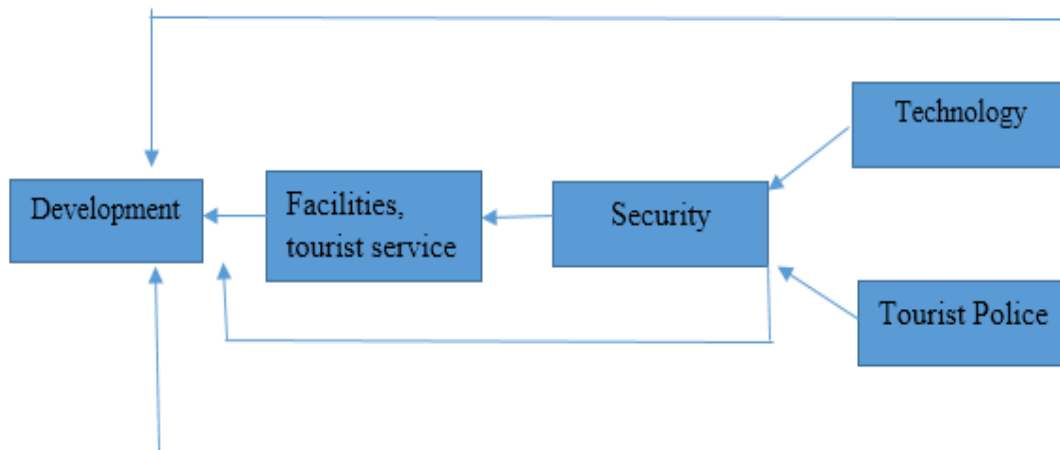


Figure4. The Independent & Dependent Variable Model.

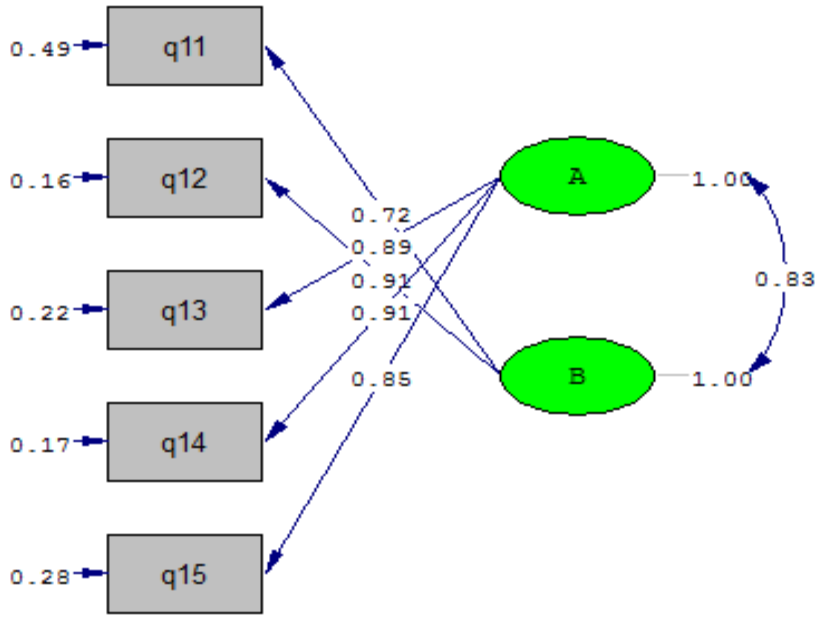


Figure5. Measurement model of research variables in standard mode.

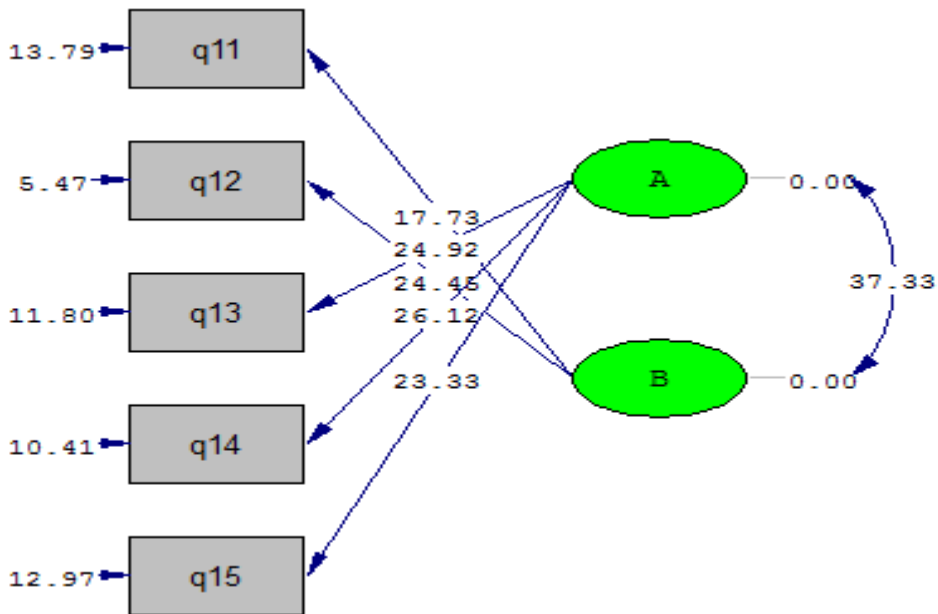


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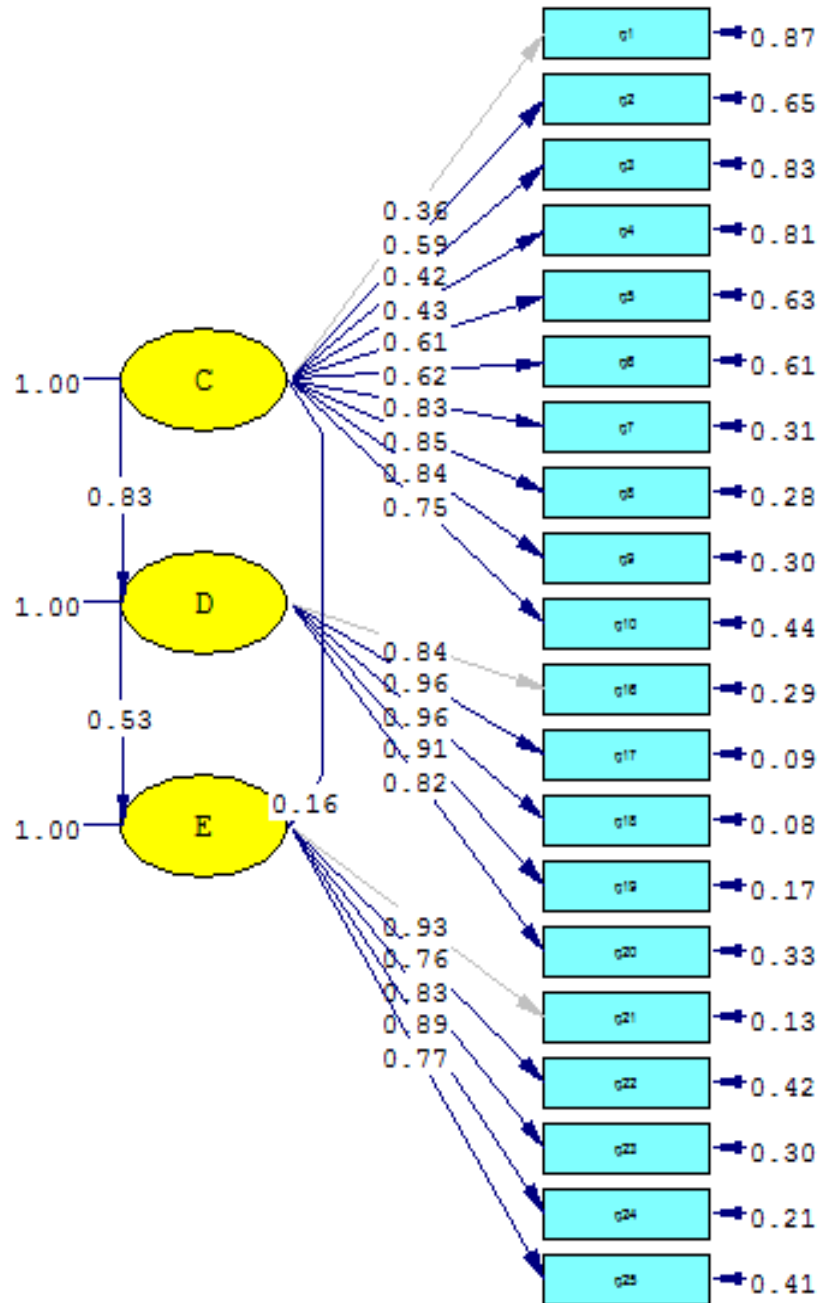


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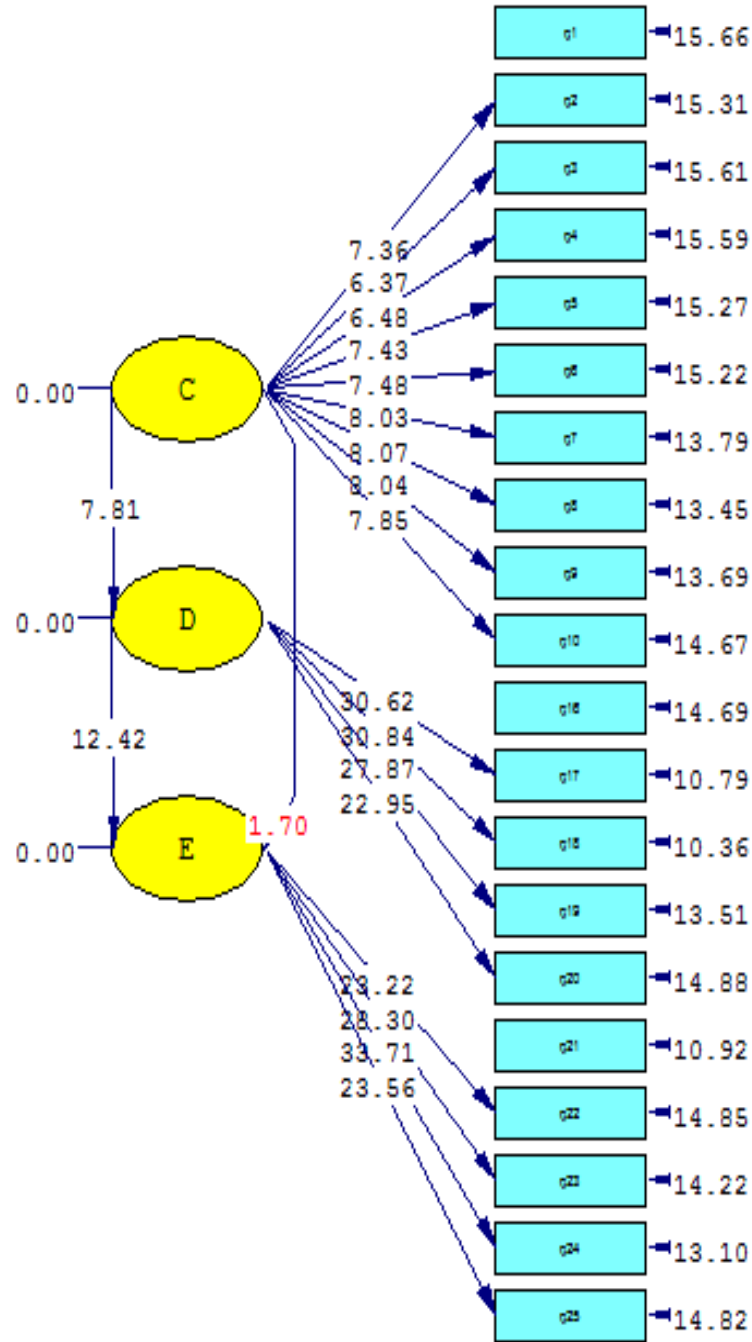


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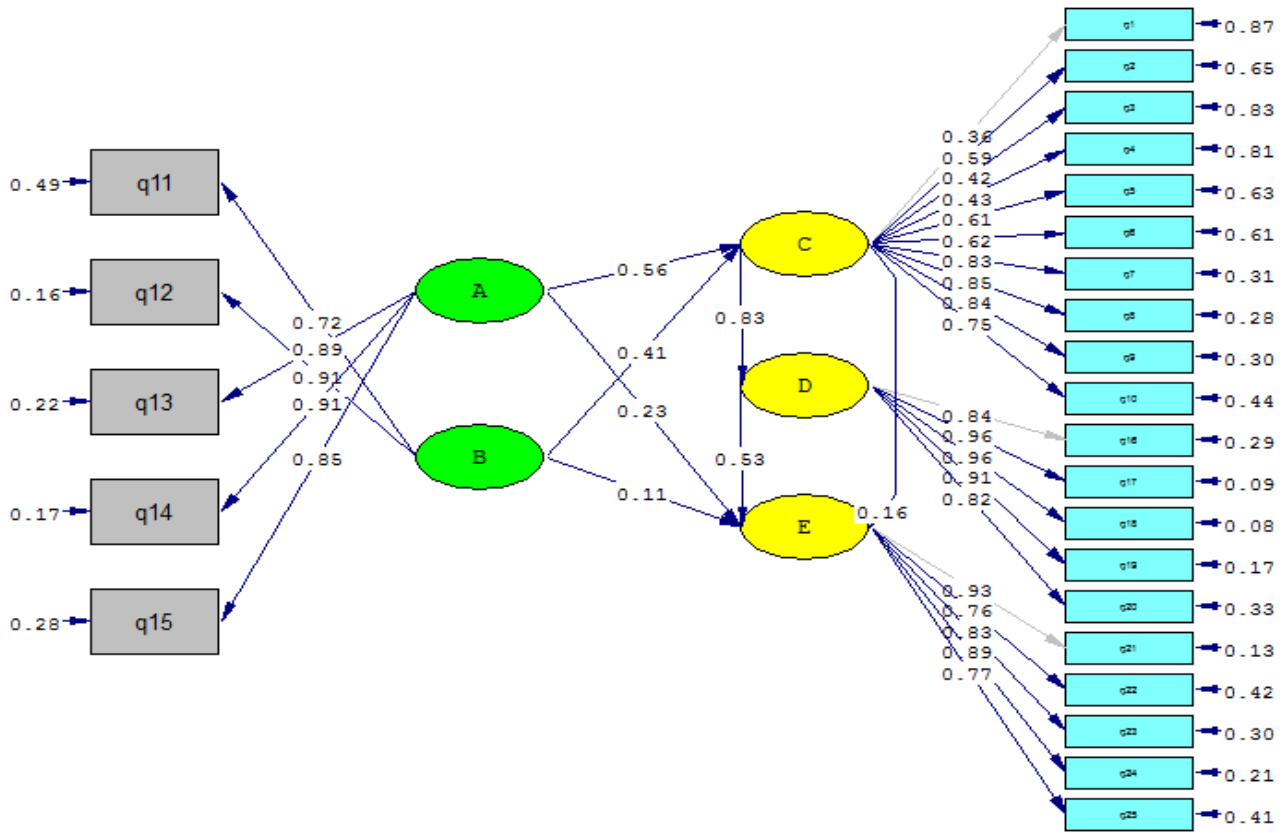


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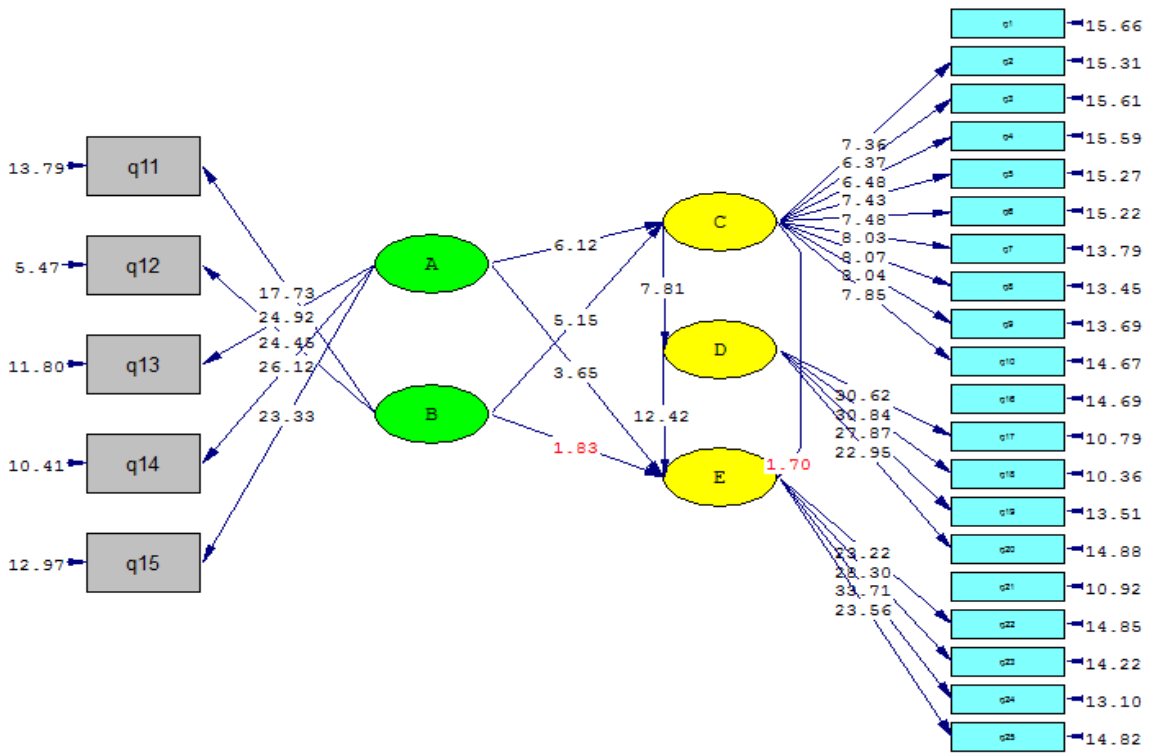


Figure 10. Significance number model of conceptual model (t-value).