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Online Transportation: Relationship Framework Model for Trustworthiness Analysis in Virtual Associations in Mogadishu Somali

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ABSTRACT

This study creates a model that links trustworthiness (trust) in an Associations—which is made up of ability, goodness, and integrity—with other characteristics. TIC (Technology for information and Communication), SOV (Shared Objectives Values), and Participation are the variables used to gauge how much confidence members have in this virtual Associations. The study's data came from an online survey of local residents of Mogadishu who use transportation services. A framework based on the literature was used in the analysis, which employed the Structural Equation Model (SEM) technique. The results of the measurement model test demonstrated that the model in the framework is fit, which means that all construct variables can describe the existing constructs since the factor loading value exceeds the threshold value of 0.5 required for structural model testing. The link between TIC and Benevolence and Integrity is significant. SOV significantly influences each of the Trustworthiness dimensions (ability, benevolence, and integrity). Only Integrity and participation have a strong relationship. The TIC and SOV covariance reveal a considerable correlation between the two.

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1. INTRODUCTION

A Virtual Associations (VA) is a collection of cooperating (legally independent) entities that function as one cohesive entity to the outside world and offer a range of services. Depending on the function or service to be supplied at that particular time, the group of cooperating Associations may change over time or may take on a dynamic configuration. As stated by (Abramson, 2017), it can also take the form of a more reliable configuration with a long lifespan and a consistent set of services and functions. According to Kasper-Fuehrer and As,(Martin Kupie, 2019) VA is a transitory network Associations made up of separate entities (Associations, firms, institutions, or specialized individuals) that band together quickly to take advantage of an apparent market opportunity. To fully take advantage of an inter- Associational VA's advantages, member firms in The connected Associations in the network need to have trust in one another (Panteli, N., & Sockalingam, 2005)

According to (Mukherjee et al, 2012)trust is said to exist "when one party has confidence in the exchange partner's dependability and integrity." Three trust- related factors frequently emerge in the literature. The skill, honesty, and goodness of the trustee as regarded by the trustor are the qualities that determine their trustworthiness (Mayer et al, 1995). According to Mayer, an ability is a "group of skills, competencies, and characteristics that enable a party to influence within some specific domain". They went on to say that the trustee's area of expertise is particular since they may be extremely skilled and competent in one area but deficient in another. Additionally, Mayer stated that kindness describes "the extent to Hussein and dr. sarwani whereby a trustee, aside from an egotistical economic motivation, is understood to aim to bring good to the trustor." According to (Mayer et al, 1995), integrity is the degree to which the trustor believes that the trustee upholds a set of standards that the trustor finds acceptable.

TIC (Technology for information and Communication) and SOV (Shared Objectives Values) are two examples of characteristics that can affect trust in virtual groups, according to research(Mukherjee et al, 2012). The existence of TIC-enabled communication between the trustor Associations and the trustee Associations enables the trustee Associations to effectively communicate Associational trustworthiness and enables the trustor to assess all Associational trustworthiness dimensions (ability, benevolence, and integrity) in a VA (Mukherjee et al, 2012). According to (Wong, 2017), the term "information technology" encompasses both communication technology and computer technology (hardware and software) used to process and store information . The impact of (TIC) Technology for information and Communication ,on daily life is significant because connect individuals and facilitate the swift sharing of information (: K. Crowston 1, 2002). Technology can be used to build a network that people can interact in. Trust in the decision-making process is one of the benefits of adopting communication technology. According to (Sirkka L. Jarvenpaa, 1998), there are six characteristics of technology that it is easy to learn, controllable, clear and comprehensible, flexible, skilful, and easy to use.

According to (Youthful Ybarra and Wiersema, 1999),Shared Objectives Values and Target refer to the degree to which parties to an exchange hold similar views regarding the significance of the motivations for transacting as well as the goals and objectives of the exchange. They also help to build trust. The perceived Associations trustworthiness (ability, kindness, and integrity) of the trustee Associations of a VA will enhance if the trustor Associations and trustee Associations share beliefs and Target (Mukherjee et al, 2012). Any type of strategic collaboration must have mutually Shared Objectives Values and objectives, but VAs are particularly important in this regard ((Kasper-Fuehrer et al., 2001). According to (Denison, 2011), Amah and , the main source of integration, coordination, and control is shared Objective values.

A person participating in an activity is said to be involved (Wong, 2017). Trust in collaborators, the media, or other participants in an activity greatly influences participation (Wong, 2017). According to this idea, involvement occurs when someone believes in and is involved with something. It generates the following framework model from the many literary sources mentioned in the preceding introduction.

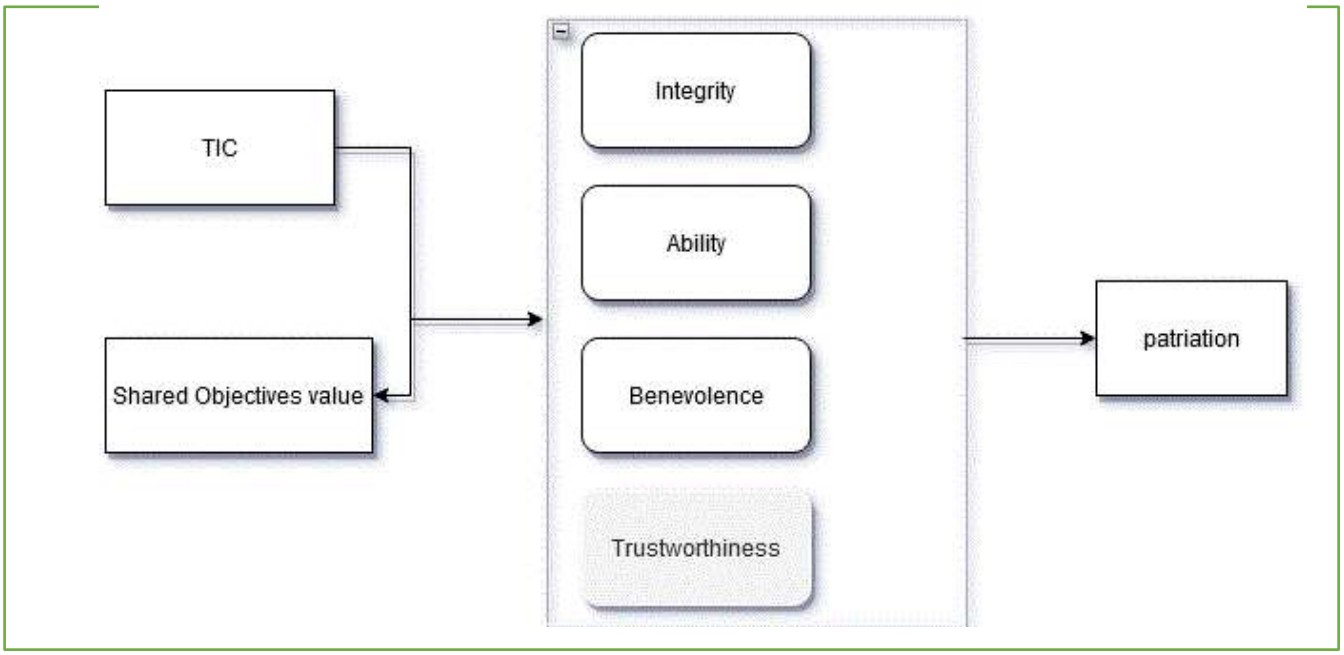

FIGURE 1 Trustworthiness Framework Model

Currently, technology is developing quickly across many industries, including the service provider sector. In the current era of globalization, using internet technology has become essential, including for online transportation service providers. A virtual inter-Association (VA) is a group of Associational entities that are geographically separated and functionally different, connected by electronic communication, and working together to achieve a shared value ((Byrne et al., 1993; Mukherjee et al., 2012)Companies and Associations that offer online transportation services operate virtually by leveraging internet-based communication technologies for cooperation or service items. Online transportation for two-wheeled motorized vehicles is one of the company's major services. This transportation method offers quickness, simplicity of ordering, and most significantly, comfort and safety. When ordering the service, customers must enter their pick-up location and destination into the application. The significant usage of this service makes it intriguing to conduct this investigation. Through this study, a framework analysis of the user participation and trust relationship model in the online transportation industry will be carried out. A framework model of the relationship between prepositions and constructs was developed based on the findings of earlier studies, and this model was then subjected to structural equation modelling (SEM) analysis.

2. METHODS

In this study, the model framework that describes the connections between TIC, shared Objectives and values, and the characteristics of trust (ability, benevolence, integrity), as well as participation, will be examined.

2.1 Operational definition of research constructs

Table 1 Operational Definition of Research Constructs

Constructs	Indicators	Sources	Code	Statements
TIC (Communications Media Resources)	Easy to learn	(Budhi, 2018)	X1	The given "Online Transportation" application material is simple to use.
	Clear and Understandable			
	Easy to use			
	Flexible		X2	The given "Online Transportation" application media is adaptable and modern.
	Become Skilled			
	Controlled			
Share objective and values	Coordination	(Amah & Ahiauzu, 2014)	X3	Activities in "Online Transportation" are clear and structured (the division of service categories are clear)
	Deal		X4	Both the "Online Transportation" policy and the privacy policy are explicit and compliant with the agreement.
	Integration		X5	Online Transport connects users and drivers in one community
Ability	Amazon.com is competent	(Gefen & Straub, 2004)	Y1	Online Transportation is competent.
	Amazon.com understands the market it works in		Y2	This Online Transportation understands customer needs
	Amazon.com knows about books		Y3	online Transportation It is aware of the quickest path that can be taken.
	Amazon.com knows how to provide excellent service		Y4	The best service is what this online transportation company excels at offering.
Benevolence	count on Amazon.com to consider how it s actions affect m e	(Gefen and Straub, 2004)	Y5	I really hope this Online Transportation would heed my counsel.
	I expect that Amazon.com pu customers' s e interests befor their own		Y6	I hope this Online Transportation has good intentions for customers
Integrity	Promises made y e Amazon.com ar le likely to be relia	(Gefen and Straub, 2004)	Y9	This promise made by Online Transport is most likely reliable
	I do not doubt t e honesty of Amazon.com		Y10	I do not doubt the honesty of this Online Transportation
	I expect that Amazon.com wi ll keep promises they make		Y11	I hope this Online Transport will keep the promise they made
	I expect that th advice given by Amazon.com is their best judgment		Y12	I hope this Online Transport's recommendations reflect their best judgment.
Participation	Continuity	(Wong, 2017)	Z1	I'll continue to use this online transportation platform.
	Frequency		Z2	I employ this online transportation service frequently.
	Recommendation		Z3	I'll tell many of folks about this online transportation service.

2.2. Size of Dataset

For the main questionnaire data, 252 respondents were using online transportation services who participated in this study. The characteristics of respondents in this study are as follows:

Table 2 *Gender of Research Respondents*

GENDER	
Male	*186*
Female	*66*

Table 3 *age of research respondents*

AGE	
17-24	*132*
25-40	*89*
41-60	*30*
≥60	*1*

Table 4 *Domicile of Research Respondents*

Domicile	
Banaadir	*Mogadishu*
61	*191*

2.3. Structural Equation Modelling

In order to understand how TIC, shared objectives and values, and the aspects of trustworthiness (ability, benevolence, and integrity) relate to one another, this study will investigate the model framework. Due of the ongoing COVID-19 epidemic, data gathering was conducted under rigorous guidelines. Therefore, Google Forms is used to assist with data collection. Software called SPSS was used to handle the data from the preliminary questionnaire, and AMOS 23 was used to process the data from the main questionnaire. The Structural Equation Modelling (SEM) method was used with the AMOS 23 software as an analytical tool. This approach was chosen due to the multilevel model's complicated model architecture and capacity to assess correlations between numerous constructs.

3. RESULTS AND DISCUSSION

3.1. Reliability and Validity Test

Questionnaire data from 252 respondents were tested for reliability and validity of the data using SPSS software with a 95% confidence level (α = 0.05). The results of the initial processing of the data are as follows*:*

Table 5 *Reliability Test*

Item-Total Statistics					
Variables	*Cronbach's Alpha if Item Deleted*	***rH > 0.6***	*Variables*	*Cronbach's Alpha if Item Deleted*	***rH > 0.6***
TIC1	*0.920*	*Reliable*	*BENE2*	*0.920*	*Reliable*
TIC2	*0.918*	*Reliable*	*BENE3*	*0.921*	*Reliable*
SOV1	*0.920*	*Reliable*	*BENE4*	*0.917*	*Reliable*
SOV2	*0.919*	*Reliable*	*INTE1*	*0.916*	*Reliable*
SOV3	*0.918*	*Reliable*	*INTE2*	*0.917*	*Reliable*
ABILITY1	*0.916*	*Reliable*	*INTE3*	*0.919*	*Reliable*
ABILITY2	*0.918*	*Reliable*	*INTE4*	*0.917*	*Reliable*
ABILITY3	*0.920*	*Reliable*	*P1*	*0.917*	*Reliable*
ABILITY4	*0.917*	*Reliable*	*P2*	*0.919*	*Reliable*
BENE1	*0.919*	*Reliable*	*P3*	*0.917*	*Reliable*

Table 6 *Validity Test (Continued)*

Correlations			*5%*		***Correlations***			*5%*	
		TOTAL	*0.125*	*0.05*			*TOTAL*	*0.125*	*0.05*
ABILIT Y1	*Pearson Correlation*	*.722***	*Valid*		*INTE3*	*Pearson Correlation*	*.617***	*Valid*	
	Sig. (2-tailed)	*0.000*		*Valid*		*Sig. (2-tailed)*	*0.000*		*Valid*
	N	*252*				*N*	*252*		
ABILIT Y2	*Pearson Correlation*	*.664***	*Valid*		*INTE4*	*Pearson Correlation*	*.680***	*Valid*	
	Sig. (2-tailed)	*0.000*		*Valid*		*Sig. (2-tailed)*	*0.000*		*Valid*
	N	*252*				*N*	*252*		
ABILIT Y3	*Pearson Correlation*	*.589***	*Valid*		*P1*	*Pearson Correlation*	*.674***	*Valid*	
	Sig. (2-tailed)	*0.000*		*Valid*		*Sig. (2-tailed)*	*0.000*		*Valid*
	N	*252*				*N*	*252*		
ABILIT Y4	*Pearson Correlation*	*.669***	*Valid*		*P2*	*Pearson Correlation*	*.665***	*Valid*	
	Sig. (2-tailed)	*0.000*		*Valid*		*Sig. (2-tailed)*	*0.000*		*Valid*
	N	*252*				*N*	*252*		
BENE1	*Pearson Correlation*	*.615***	*Valid*		*P3*	*Pearson Correlation*	*.701***	*Valid*	
	Sig. (2-tailed)	*0.000*		*Valid*		*Sig. (2-tailed)*	*0.000*		*Valid*
	N	*252*				*N*	*252*		

3.2. Structural Equation Modelling

Furthermore, the model framework is described in the AMOS 23 software and SPSS data from the main questionnaire is entered into the model. The software also identifies that there is a relationship between the TIC constructs and Shared objectives and values. The framework model in the software is as follows*:*

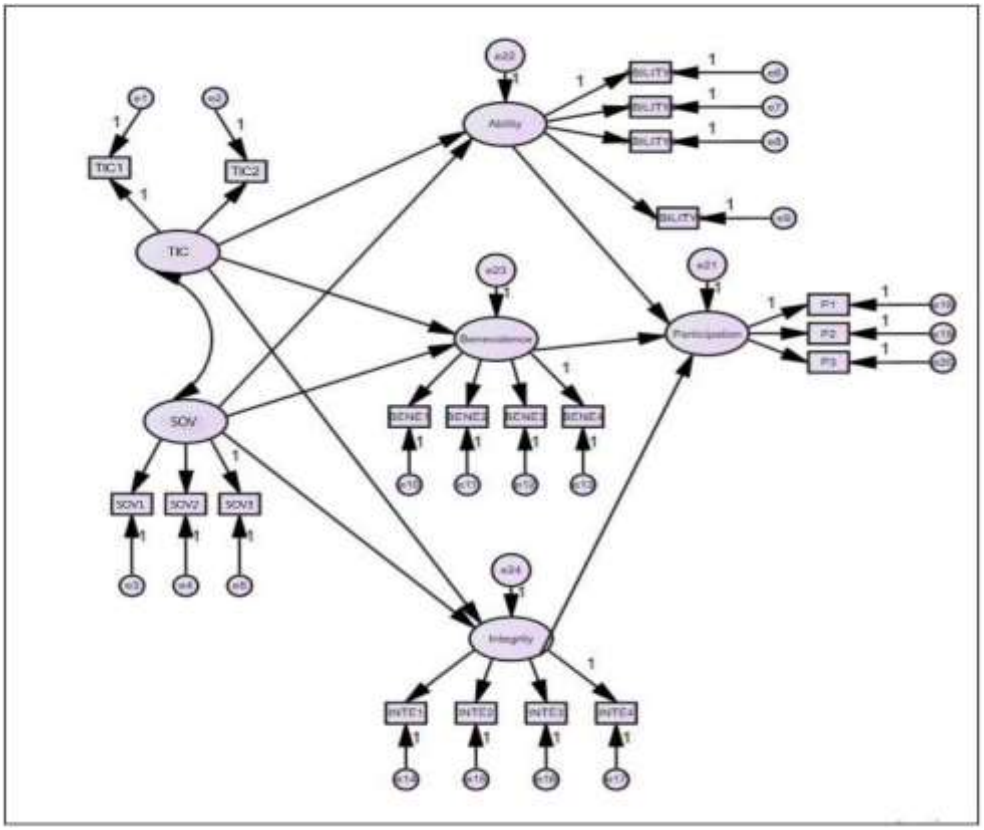

Figure 2: Trustworthiness Model Framework in Virtual Association in Online Transportation Service Providers in AMOS 23 Software

SEM analysis is divided into two parts. namely Measurement Model Test and Structural Model Test. The measurement model test is carried out to find out how precisely the manifest variable can explain the existing constructs and measure the model used is included in the fit category or not. The measurement model test results.

Table 7 *Measurement Model Test Results*

Measurement Model Test	*Notation*	*Cut Off*	*Result*	*Source*
Absolute Indices	*x^2*	*$x^2H < x^2T$ **or** x^2H saturated model < x^2H < independence model*	*x^2H (450.484) > x^2T (190.516) **or** 0 < 450.484 < 2521.991*	*(Santoso, 2018)*
Measurement Model Test	*Notation*	*Cut Off*	*Result*	*Source*
Absolute Indices	*x^2/df*	*$x^2/df \leq 3$*	*2.815*	*(Kline, 2016)*
	GFI	*0-1 (the closer to 1 the better)*	*0.843*	*(Santoso,2018)*
	AGFI		*0.794*	
	RMR		*0.033*	
Incremental Fit Indices	*NFI*		*0.821*	
	CFI		*0.875*	
Parcimonv Fit Indices	*PNFI*		*0.692*	
	PCFI		*0.737*	
	AIC	*AIC saturated model < AICH < AIC independence model*	*420 < 550.484 < 2561.991*	
	ECVI	*ECVI saturated model < ECVIH < ECVI independence model*	*1.673 < 2.193 < 10.207*	
	Hoelter's (N)	*75 ≤ value < 200 (worthy)*	*104*	*(Wan, 2002)*

Based on the results of the measurement model test above, the framework model in this study can be said to be fit to explain the existing data set. The next stage is the structural model test, the results of the test are as follows:

Table 8 *Structural Model Test Results*

Hypothesis		***Acceptance***	***Relationship***	***Estimate Regress on***	***Correlations (Close = estimates> 0,5)***
1	*TIC vs Ability*	*H0*	*No Real Relationship*	*-1.012*	*Very weak*
2	*TIC vs Benevolence*	*H1*	*There's a Real Relationship*	*-1.916*	*Very weak*
3	*TIC vs Integrity*	*H1*	*There's a Real Relationship*	*-2.557*	*Very weak*
4	*SOV vs Ability*	*H1*	*There's a Real Relationship*	*1.837*	*Close*
5	*SOV vs Benevolence*	*H1*	*There's a Real Relationship*	*2.569*	*Close*
6	*SOV vs Integrity*	*H1*	*There's a Real Relationship*	*3.306*	*Close*
7	*Participation vs Ability*	*H0*	*No Real Relationship*	*0.215*	*Weak*
8	*Participation vs Benevolence*	*H0*	*No Real Relationship*	*-0.125*	*Very weak*
9	*Participation vs Integrity*	*H1*	*There's a Real Relationship*	*0.679*	*Close*

These findings indicate that only the association between shared objectives and values and all trustworthiness factors is significant. While the Participation construct only has a relationship with the dimension of Integrity, the preposition of TIC only has a substantial association with the dimensions of Benevolence and Integrity. These findings suggest that users' trust in the use of two-wheeled online transportation services in Mogadishu Raya and Banaadir area would rise in the presence of clear shared objective values and objectives between service providers and users. Based on the outcomes of data processing utilizing the AMOS 24 program, the relationship between TIC constructs and Shared objectives and values is established so that:

Table 9 *Relationship between Shared Objectives and values and TIC*

Correlation: (Group number 1 - Model 1)	
	Estimate
SOV <--> TIC	*0.973*

The table above shows that there is a significant relationship between TIC and SOV. The TIC used in the organizations studied has a close relationship with the assessments and target of existing users. The correlation number shows 0.973 or 97.3%.

CONCLUSION

The framework model's data processing findings indicate that six factors can be used to reflect trust in virtual association VA's in online transportation. Only the kindness and integrity variables and the TIC variable have a true and substantial association. All Trustworthiness variables (ability, benevolence, and honesty) have a true and strong association with Shared objectives and Values (SOV) variables. While the integrity variable is the only one with which the Participation variable truly and closely correlates. These findings lead to the conclusion that if a virtual association upholds high virtue and integrity ideals, supporting TIC facilities will boost the trust of users of online transportation services. When everyone in the association shares the same values and objectives, trust in the Association is present. In The framework model's data processing findings demonstrate that each member of the virtual association participates because they have faith in the integrity of the existing system. The reciprocal relationship between the TIC and SOV factors demonstrates how well these variables influence one another.

In the current model framework, this study only analyses the connections between TIC, shared objectives and values, and participation using the characteristics of trustworthiness (ability, benevolence, and integrity). In other words, changes to the model can be based on the results of this study to produce a model that fully proves that all dimensions of Trustworthiness have a significant relationship with the measured variables.

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