



Mediation Model of Factors Affecting Virtual Team Performance in UAE Organisations

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Abstract: With the advanced communication technology and working from home concept, many organisations are relied on virtual teams to accomplish business activities across their remote branches or global affiliations. This paper presented the formulation of Model on factors affecting Virtual Team Performance in UAE organisations. The model consisted of two independent variables namely Communication Competence and Cultural Intelligence constructs, one dependent variable which is Virtual Global Team Performance construct and two mediating variables which are Collaboration and Knowledge Sharing construct. The model was constructed using the questionnaire data collected from 318 respondents who were employee in UAE organizations. After the model was developed, it was assessed at each of measurement components for fitness criteria. Once, all the measurement components had achieved the goodness-of-fit criteria, the measurement components were tied up to form structural model according to the conceptual framework. The structural model was evaluated for its ability to meet the fitness criteria where it found that collaboration, communication competence, cultural intelligence and knowledge sharing have positive significant effect virtual global team performance. Furthermore, the positive significance of the mediating effect of collaboration and knowledge sharing is confirmed. This means that knowledge sharing and collaboration can have a significant impact on the success or failure of virtual team performance.

Keywords: PLS, AMOS, global virtual team, communication, collaboration, knowledge sharing, UAE

1. Introduction

Because of globalisation and advanced communication technologies, many organisations now rely on virtual teams. Virtual teams are described as "a group of individuals located in two or more countries, working on interdependent tasks, using information and communication technology as a primary means of interaction" to accomplish business activities across their remote branches or global affiliations (Nordbäck et al., 2019). Virtual teams can benefit organisations in a variety of ways, including flexibility, convenience, time savings, and lower travel costs. Virtual teams differ from traditional teams in that team members may come from different cultural backgrounds, speak different languages, and ultimately collaborate from different geographical locations and time zones. Virtual teams, no doubt, have a high failure rate (Jimenez et al., 2017).

As virtual team environments become more common, understanding the processes for forming and maintaining effective virtual teams is critical (Taras et al., 2019). Creating a work environment that can support this type of organisational structure necessitates knowledge gained from forming and managing productive virtual teams. Knowledge can also aid in the formation of productive virtual teams by preserving team collaboration and cohesion. While research on virtual teams has been conducted, the principles of virtual team effectiveness remain relevant and may help improve practice and theory understanding.

Globalization and advancements in information technology have resulted in the existence of virtual teams (Kasemsap, 2016). The structure of virtual teams necessitates individuals working on geographically dispersed teams that rely heavily on information and communication technologies (ICTs) to complete their tasks (Ale Ebrahim, Ahmed, Rashid, & Taha, 2012). With the prevalence of virtual work environments in today's business settings, there is a greater need to understand the processes for developing and maintaining effective virtual teams.

Understanding the formation and maintenance of effective virtual teams is critical for creating a work environment that supports this type of organizational structure. Leadership roles, social processes, organizational processes, team characteristics, communication tools, and collaboration tools have all been studied (Han et al., 2017). Determining the factors that contribute to virtual team effectiveness will assist practitioners and scholars in gaining insight from virtual team members' experiences. Degbey and Einola (2020) discussed group potency in virtual teams and proposed research into how organisations can develop virtual teams. Lippert and Dulewicz (2018) stated that the factors influencing virtual team effectiveness are ambiguous. The study's findings can be used to expand knowledge about the factors that influence the effectiveness of virtual teams, as well as possibly developing virtual team best practices. The concept of virtual team effectiveness has been studied by several researcher such as Killingsworth et al. (2016) and Ale Ebrahim et al (2012). Killingsworth and Liu.

Communication, on the other hand, refers to a leader's ability to communicate in a clear and organised manner, avoiding errors and miscommunication while not being excessive or detrimental to performance." (Roman et al. 2019). Because virtual team members work in geographically dispersed locations, communication is essential to their success. They communicate via phone, teleconference, texting, email, and other means. Communication is the exchange of information and other resources among team members and organisations, such as ideas, knowledge, and skills. There are three types of communication: written (letters, emails, memos, reports, and formal documents), verbal (chat, presentations, and voicemails), and nonverbal (signals to communicate and studying body language) (Ahmed et al. 2021).

Deadlines (Jarvenpaa and Leidner, 1999), effective communication (Beranek and Martz, 2005, Dustdar, 2004), and team cohesiveness are all challenges that must be overcome (Dineen, 2005). While virtual teams have obvious benefits, they also present new challenges (Precup et al., 2006). According to Cascio (2000), a virtual team has five significant disadvantages: lack of physical engagement, loss of face-to-face synergies, lack of trust, increased concern with predictability and reliability, and lack of social connection.

All of these issues must be addressed implicitly when forming a virtual team in order to develop an effective virtual team (Hunsaker and Hunsaker, 2008). Due to the nature of virtual teams, they rely on computer-mediated communication tools rather than face-to-face interactions (Gaudes et al., 2007). They are empowered professionals who are expected to use their initiative and resources to assist the team in accomplishing the goal. They may be required to report to a number of supervisors at times (Hunsaker and Hunsaker, 2008). Virtual teams may face challenges because there are fewer opportunities for casual work and non-work-related communication (Furst et al., 2004). Virtual team members must also learn to collaborate effectively, interact effectively with cultural differences, and complete tasks using computer-mediated technology (Dafoulas and Macaulay, 2002; Hunsaker and Hunsaker, 2008).

2. Effectiveness of Communication in Virtual Group

While virtual teams and virtual organizations are relatively new concepts, the concepts of teams and groups have been around for a while. There are several theories to support this study and the most popular theories regarding virtual team effectiveness are discussed in the following sub-sections.

2.1 Team Effectiveness Theory

Hackman and Morris (1975) highlighted the factors influencing group effectiveness of a team. For a team to perform effectively, the members must exert appropriate effort, skill, and knowledge to complete the work, as well as employ task performance strategies appropriate for the setting and work. There are four organisational conditions that would foster team effectiveness: "(1) clear, engaging direction; (2) an enabling team structure; (3) a supportive organisational context; and (4) available, expert coaching." These same conditions could be used by team leaders to help their teams perform well.

2.2 Communicative Competence Theory

A language user's grammatical comprehension of syntax, morphology, phonology, and other related concepts, as well as social knowledge of how and when to use utterances correctly, is referred to as communicative competence. "The study of communicative competence in linguistics arose in response to apparent linguistic competence deficiencies." The application of communicative skills is included in communicative language instruction. Pragmatics, language philosophy, and speech act research have all contributed to our understanding of communicative competence."

One of the theories that underpins the communicative approach to foreign language training is the concept of communicative competence. There are at least three different models from which to choose. Canale and Swain's model, as well as Canale's later edition, were the first and most commonly used. Celce-Murcia, Dornyei, and Thurrell (1995) developed a second model that more precisely defines socio-cultural content. Language competence, strategic competence, socio-cultural competence, actional competence, and discourse competence were all included in their definition of communicative competence. Bachman and Palmer's approach is a third paradigm that is widely used in federal language education in Canada.

3. Research Conceptual Framework

Conceptual framework developed based on the reviewed literature, the framework consist of independent variables (Communication Competence, Cultural Intelligence), dependent variable (Global Virtual Team Performance) as well as mediating variables (Collaboration, Knowledge Sharing), these variables has not been used together in any prior research in this area as well as in UAE. Figure 1 presents the conceptual framework showing the relationship between teh variables considered for investigation in this study.

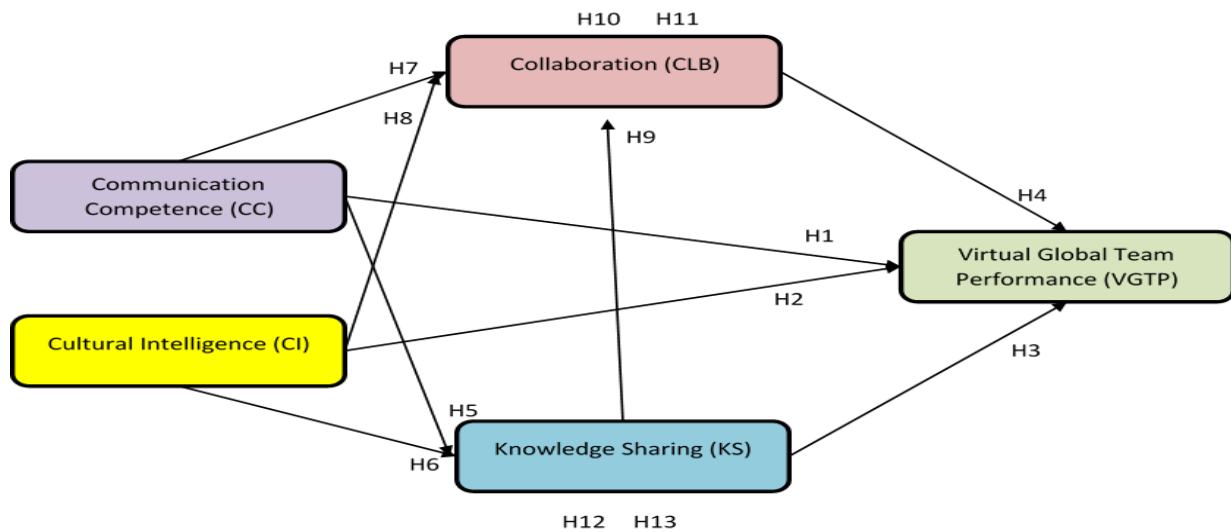


Figure 1: Conceptual Framework and Hypotheses

The postulated hypotheses are presented below;

Table 1 - Postulated hypotheses

Code	Descriptions
H1	Communicative Competence (CC) has significant positive relationship with virtual global team performance (VGTP): CC → VGTP
H2	Cultural Intelligence (CI) has significant positive relationship with virtual global team performance (VGTP): CI → VGTP
H3	Knowledge sharing (KS) has significant positive relationship with virtual global team performance (VGTP): KS → VGTP
H4	Collaboration (CLS) has significant positive relationship with virtual global team performance (VGTP): CC → VGTP
H5	Communicative competence (CC) has significant positive relationship with knowledge sharing (KS): CC → KS
H6	Cultural Intelligence (CI) has significant positive relationship with knowledge sharing (KS): CI → KS
H7	Communicative competence (CC) has significant positive relationship with collaboration (CLB): CC → CLB
H8	Cultural Intelligence (CI) has significant positive relationship with Collaboration (CLB): CI → CLB

H9	Knowledge sharing (KS) has significant positive relationship with Collaboration (CLB): KS→CLB
H10	Collaboration (CLB) mediates the relationship between communicative competence (CC) and Virtual Global Team Performance (VGTP): CC → CLB → VGTP
H11	Collaboration (CLB) mediates the relationship between Cultural Intelligence (CI) and Virtual Global Team Performance (VGTP): CI → CLB → VGTP
H12	Knowledge sharing (KS) mediates the relationship between communicative competence (CC) and virtual global team performance: CC→KS→VGTP
H13	Knowledge sharing (KS) mediates the relationship between cultural intelligent (CI) and virtual global team performance: CC→KS→VGTP

4. Research Method

The questionnaire method was used in this study to collect data from respondents. A questionnaire is a type of survey research instrument that consists of a series of structured questions used to collect primary data from research participants. A questionnaire is a tool that "translates the research objectives into specific questions, the answers to which allow the researcher to test the stated hypotheses". The questionnaire is frequently regarded as the heart of survey research (Kothari, 2004) because it can cover a large geographical area at a low cost, making it cost effective; it may be bias-free; it provides respondents with adequate time, ensuring the reliability of respondents' responses due to the convenience provided to them; and it can be used in large samples, making the results reliable and dependable.

A positivistic approach was used to collect data in this study because it is cost-effective, has a quick data collection mode, is easy to analyse, and is appropriate for testing hypotheses and determining relationships between variables (Almansoori et al. 2021). Respondents can choose from a wide range of options that would otherwise be forgotten when data is collected using closed-ended self-administered questionnaires. It also allowed the researcher to focus solely on the issue at hand. The development and design of questionnaires is critical for obtaining data relevant to research objectives. This study's questionnaire was created in such a way that questions would be organized logically and accurately into appropriate sections. Six sections will be included in the questionnaire. The respondents' demographic information was gathered in the first section. The second, third, fourth, fifth, and sixth sections solicited responses on all of the framework's variables. The questionnaire was distributed to the participants in a systematic manner. The questionnaire asked a series of simple questions to assess the level of communication competence and cultural intelligence on global virtual teams for MNCs in the UAE. Because all of the participants work for multinational corporations and speak English fluently, the questionnaire was written in English. To obtain accurate and relevant data from the respondents, a 5-point Likert Scale was used for all variables. This study's main statistical approaches were structural equation modelling (SEM) with AMOS and factor loading with the statistical package for the social sciences. The Statistical Package for the Social Sciences (SPSS) and SEM-AMOS were used to analyze the data. SEM is a very effective tool to determine the relationship between the unobserved variable, named as latent variables and observed variables named as measured or manifest variables, is assessed (Khahro et al. 2021, Rahman et al. 2022, Almansoori et al. 2022). Before evaluating the structural model, this study will conduct a series of confirmatory analyses to determine the measurement model's reliability and validity.

A simple random sampling technique was used to collect the data. This method ensures that each attribute has an equal chance of being selected (Almazrouei et al. 2021). Employees of UAE multinational corporations made up the population, which included everyone from management to low-level workers. These criteria specify the characteristics that members of the population must have in order to participate in the study. As of the time of data collection, the total number of employees in Dubai multinational companies was 3, 044. Meeting all of the respondents from the entire community to fill out questionnaires is difficult in terms of time, cost, and for the researcher (Rungtusanatham et al., 2003). It is impossible to study a large area, such as the entire UAE, with limited resources and at a specific time. As a result, the researcher requires samples from a subset of the research population. It is expected to be satisfactory between 100 and 200, and anything above 200 is considered a large sample (Goh and Hooper, 2009). The response rate of data collection for current study is reported in Table 2.

Table 2 - Survey response rate

Items	Number	Percentage
Total questionnaire administered	400	100
Questionnaire not returned	51	12.75
Questionnaire received	349	88.25
Unusable questionnaires excluded from analysis	23	5.75
Usable Questionnaires	326	81.5
Valid response after removing outliers	318	79.5

Table 2 shows that the response rate for the questionnaire administration was 79.5 per cent. According to Hair et al. (2010), an acceptable sample size for statistical analysis must be 10–20 times higher than the number of variables. Meanwhile, Hair et al. (2014) suggested that the lowest sample size for SEM analysis must be approximately 200. Thus, the sample size of this current research of 318 was appropriate for the statistical analysis. The data was recorded for six constructs using different codes as presented in Table 3.

Table 3 - Constructs characteristics

Constructs	Code	Number of factors
1. Communication Competence	CC	20
2. Cultural Intelligence	CI	10
3. Knowledge Sharing	KS	10
4. Collaboration	CLB	7
5. Virtual Global Team Performance	VTP	10

Table 3 shows how the data was coded. Each variable under a construct is given the code of the construct which a unique number to distinguish it from the other items with the same construct.

5. Results and Discussion

5.1 Demographic Profile of the Respondents

Collected questionnaire forms were reviewed carefully. The information regarding the respondents was collected to assess the capability and expertise of the respondents. The demographic information of the respondents is presented in Table 4.

Table 4 - Respondents' demographic data

	Frequency	Percentage
Gender		
Male	193	60.7
Female	125	39.3
Age Distribution		
18-28	49	15.33
29-38	115	36.18
39-48	85	26.68
Over 50	69	21.77
Educational level		
Diploma/certificate	2	0.61
Bachelor degree	26	8.28
Masters degree	226	71.16
PhD. degree	64	19.93
Position		
Manager	37	11.65
Team leader	31	9.81
Member	114	35.88
-	136	42.77
Experience		
1 to 5 years	95	29.75
6 to 10 Years	104	32.82
11 to 15	35	11.04
More than 16	84	26.38

Table 4 shows that about 60.7% of the respondents are male and 39.3% are female, the difference between the male and the female is much because respondents are selected on the basis of the actual employee in the organizations as revealed in Arab countries the number of men more the women. The distribution according to age shows that about 50 of the respondents are aged from 18 to 28 years thereby constituting about 15.33 % of the respondents; and about 26.68% are within the age of 39 to 48 years, and about 21.77% goes to the range of above 50 years.

5.2 Evaluation Criteria

This study developed structural model of virtual global team performance and evaluated based on Confirmatory Factor Analysis (CFA). CFA is a reliable method of factor analysis that examines whether the construct's measures correspond to the researcher's perception of the construct's nature (Awang, 2014). Methodology has largely supplanted older approaches such as EFA in determining the validity of constructs (Awang 2015). Confirmatory factor analysis is a method of establishing relationships between MNCs in the UAE. CFA is most likely used to assess the link that may exist between the observed variables under each projected concept in order to quantitatively assess the quality of the factor structure and provide additional evidence of the construct validity of the new measurement.

According to leading scholars, the typical stages for using SEM with CFA in this study are: (1) model specification; (2) model identification; (3) parameter estimation; (4) goodness-of-fit measurement; and (5) model re-specification (Awang, 2015; Hair et al., 2011; Hooper et al., 2008). The fundamental goal of this study is to assess the validity of the measurement model before assessing the structural model. As a result, both measurement and structural models were evaluated using Maximum Likelihood estimation (ML). The goodness-of-fit indices and degrees of acceptance used to assess the fitness of construct measurement and structural equation models are listed in Table 5.

Table 5 - Goodness-of-fit index and level of acceptance criteria

Name of Category	Goodness-of-fit indices	Acceptance level	Comments
Absolute Fit	Chisq	$P > 0.05$	Sensitive to sample size greater than 200
Absolute Fit	RMSEA	$RMSEA < 0.08$	Ranges 0.05 to 1.00 is acceptable
Absolute Fit	GFI	$GFI > 0.90$	$GFI = 0.95$ is a good fit
Incremental Fit	AGFI	$AGFI > 0.90$ $AGFI > 0.80$	$AGFI = 0.95$ is a good fit $AGFI > 0.80$ is acceptable fit
Incremental Fit	CFI	$CFI > 0.90$	$AGFI = 0.95$ is a good fit
Parsimonious Fit	Chisq/df	$Chisq/df < 3.0$	The value should be less than 3.0

Adapted from Awang (2014; 2012); Baumgartner and Homburg (1996); Doll et al.(1994)

5.3 Measurement Model Evaluation

Measurement model evaluation plays very important role in developing a complete model to explain the effect between the measuring variables and unobserved variable. To develop a model for assessing the effect of communication, intelligence and knowledge factors on virtual global team performance. For this five measurement models were developed and tested. Among these measurement model, first model presented Communication Competence (CC) factors which was explained by 20 questions. Awang et al. (2015) and Hair et al. (2011) suggested that the minimum number of items required to assess a latent construct should not be fewer than four (4), in order to prevent the model identification problem throughout the analysis process. This model contained 20 variables which showed that the developed measurement model can be accepted for evaluation. The AMOS programme was used to build a reliability measurement model. The reliability construct's factor loading, squared multiple correlation (R²), and fitness indicators were investigated as presented in Figure 2.

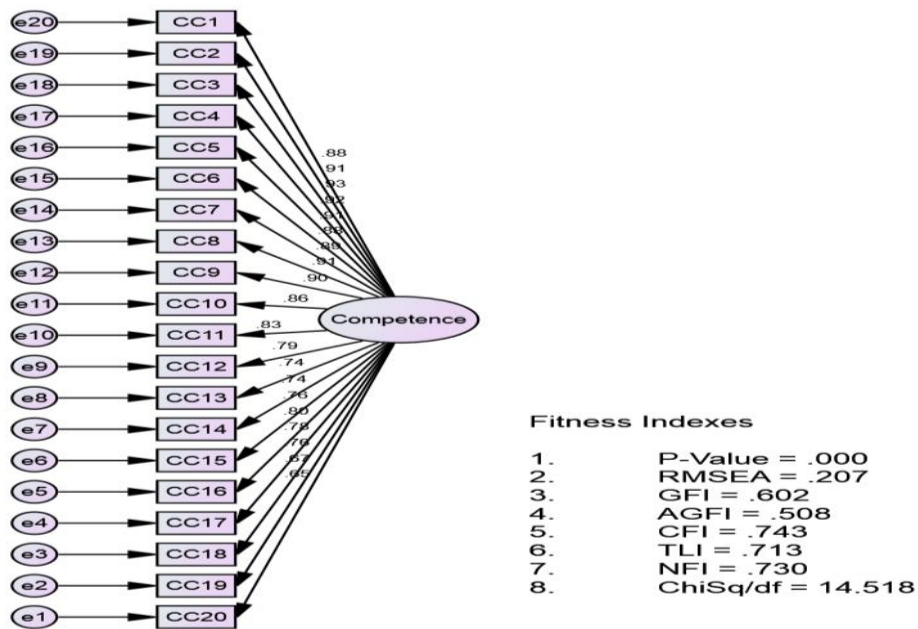


Fig. 2 - Communication Competence (CC) model not achieve goodness-of-fit

Figure 2 shows that the fitness indices are not achieved satisfactorily. In-depth evaluation showed that there are many redundant items in the construct. The redundant items and the items with lower loadings were deleted and the model is re-estimated for the second and final time to achieve the required fit as shown in Figure 4.2.

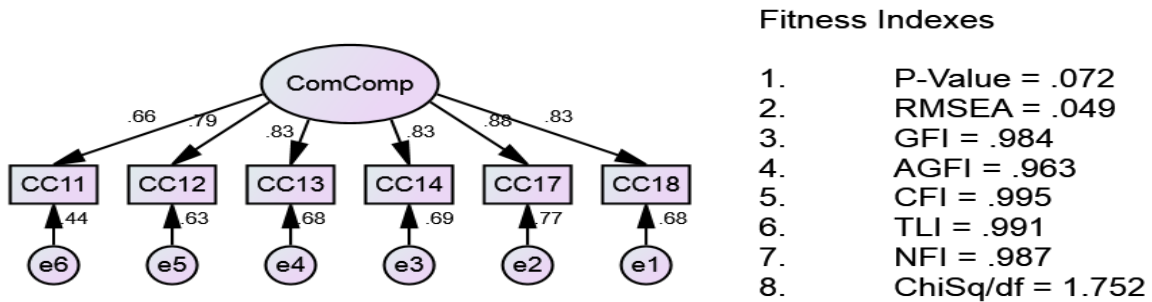


Fig. 3 - Communication Competence (CC) model achieved goodness-of-fit

Figure 3 shows that the final model contains 6 important variable measuring communication competence and the final model is satisfactorily verified based on the fitness index values required. Second measurement model describe Culture Intelligence (CI) and its measuring variable. The results of the Confirmatory Factor Analysis (CFA) obtained from the AMOS software are presented in Figure 4.

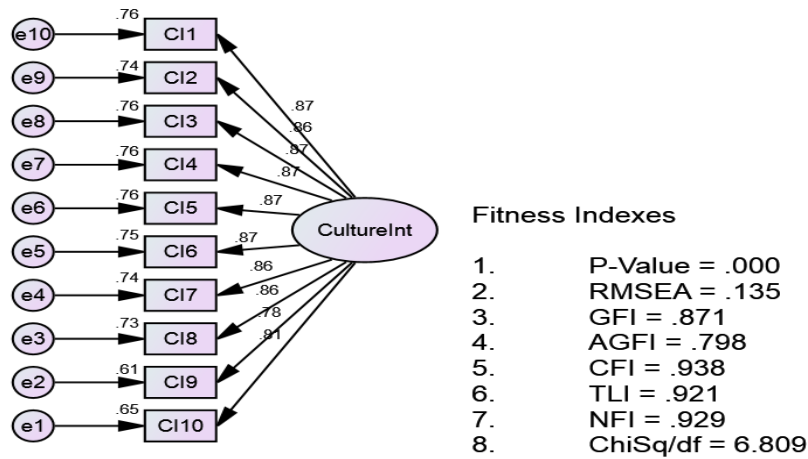


Fig. 4 - Culture Intelligence (CI) model not achieve goodness-of-fit

Figure 4 shows that the fitness indices are not achieved satisfactorily. In-depth evaluation showed that there are many redundant items in the construct. The redundant items and the items with lower loadings were deleted and the model is re-estimated for the second and final time to achieve the required fit as shown in Figure 5.

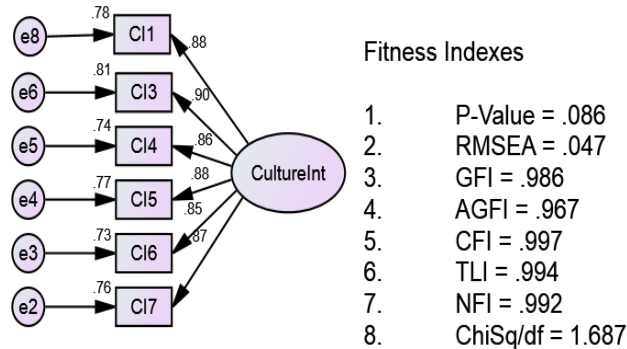


Fig. 5 - Culture Intelligence (CI) model achieved goodness-of-fit

Figure 5 shows that the final model contains 6 important variables measuring cultural intelligence. Factor loading of all the items is above 0.5 and Chisq/df is less than 3.0 depicting that all the cultural intelligence factors are satisfactorily verified based on the fitness index values required. Third measurement model describes Knowledge sharing and related measuring variables. The results of the Confirmatory Factor Analysis (CFA) obtained from the AMOS software are presented in Figure 6.

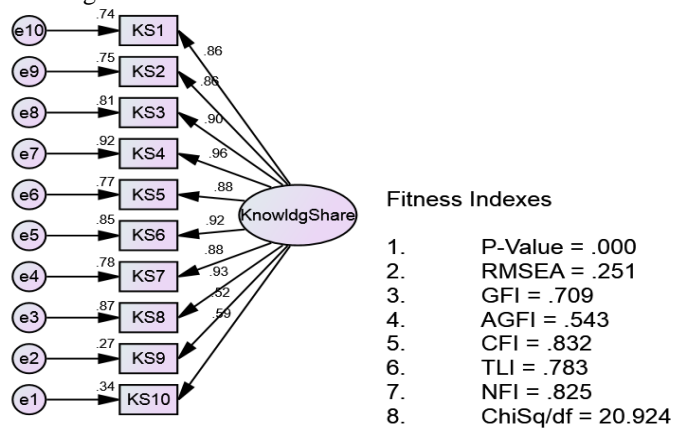


Fig. 6 - Trust Knowledge Sharing model achieved goodness-of-fit

Figure 6 shows that all factors are good in the measurement model as their factor loading is above 0.5. The Chi/df, on the other hand, looks to need to be tweaked because it was higher than the minimum permitted value of 3. Hence,

the measurement model was improved by considering the factors with comparatively lower loading and revised model was re-estimated with AMOS as shown in figure 7.

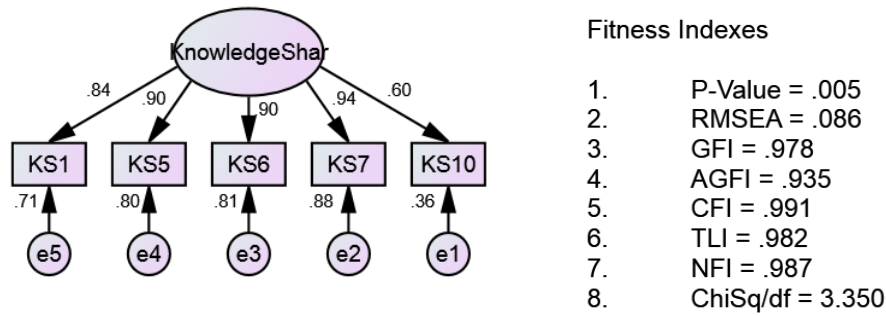


Fig. 7 - Trust Knowledge Sharing model not achieve goodness-of-fit

Figure 7 showed that the final model contains 5 variables of trust knowledge sharing and the model is satisfactorily meeting the requirement. In the same manner the model for collaboration was run with AMOS and the results are presented in figure 8.

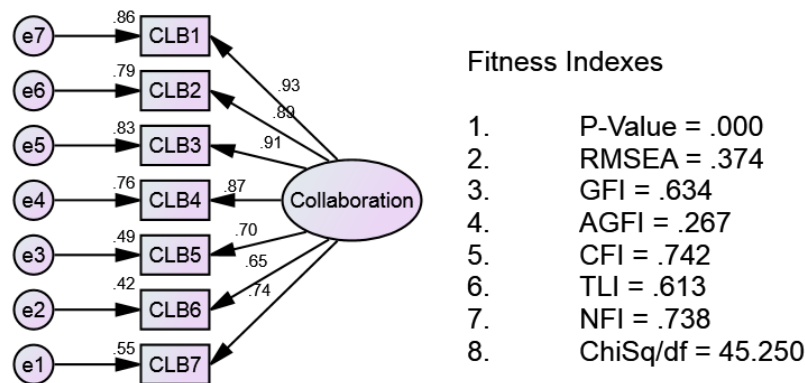


Fig. 8 - Collaboration (CLB) model achieved goodness-of-fit

The result in figure 8 showed that all items had suitable factor loading larger than 0.5. However, the fitness indices are not achieved. Hence, the measurement model was improved by considering the factors with comparatively lower loading and revised model was re-estimated with AMOS as shown in figure 9.

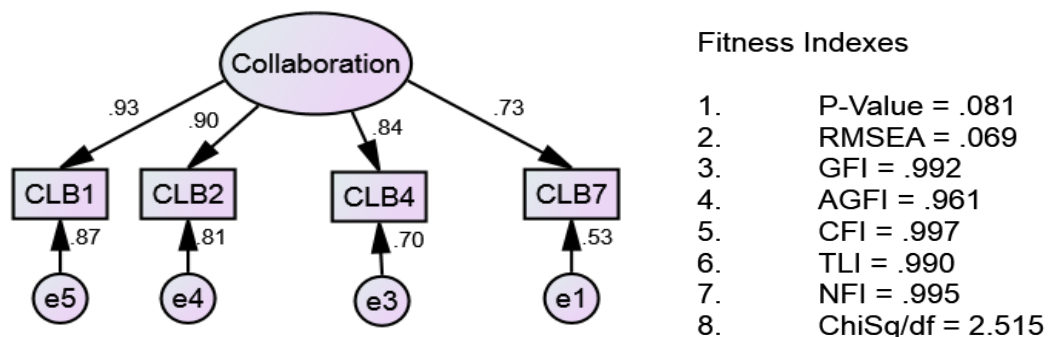


Fig. 9 - Collaboration (CLB) model achieved goodness-of-fit

Figure 9 showed that the final model contains 4 variables of collaboration and the model is satisfactorily meeting the requirement. Similarly, Virtual Global Team Performance Construct was run with AMOS and the results are presented in figure 10.

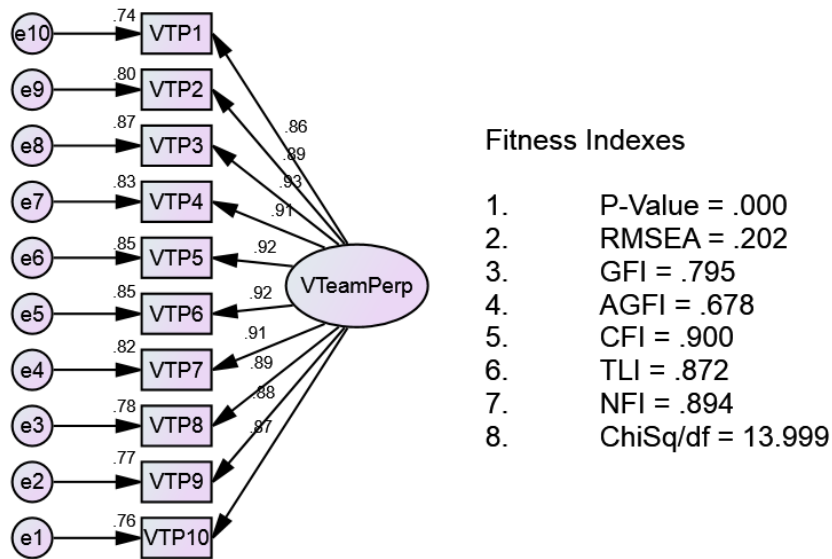


Fig. 10 - Virtual Global Team Performance model not achieve goodness-of-fit

The result in figure 10 shows that all items had suitable factor loading larger than 0.5. However, some of the items are redundant. In summary, all Virtual Global Team Performance items construct that satisfied the level of acceptance were identified in final measurement model for Knowledge Technology Use used for the structural equation modelling in this research as shown in Figure 11.

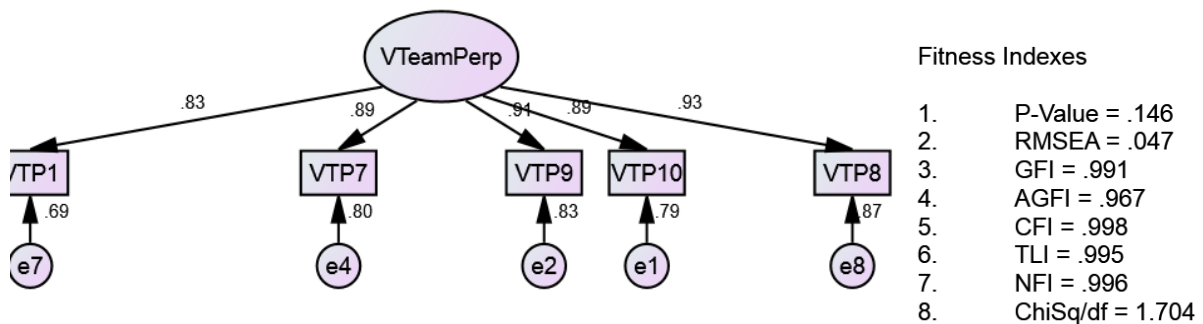


Fig. 11 - Virtual Global Team Performance model achieved goodness-of-fit

Figure 11 showed that the final model contains 5 variables of collaboration and the model is satisfactorily meeting the requirement .

5.4 Validity of the Constructs

The construct i.e. final measurement models developed with the help of AMOS must be validated before a complete structural model is evaluated. This validity is two-stage validity as convergent validity and discriminant validity. Convergent validity refers to the factor loading scores from the items of measuring scale in a latent construct that should be correlated and significant. These items should measure the same concept, and the convergent condition will be met if their factor loading scores are greater than 0.5. (Awang, 2014; 2015). Individual manifest and construct reliability tests are used to assess consistency (Memon and Rahman 2014) which can be done through convergent validity. Convergent validity was evaluated based on Composite reliability (CR) test and Average variance Extracted (AVE) value. As per thumb rule, CR value must be above 0.7 while AVE values should be higher than 0.5. The convergent validity results obtained in this study are presented in Table 6.

Table 6 - Results of convergent reliability

Model constructs	CR	AVE
1. Communication Competence (CC)	0.917	0.649
2. Culture Intelligence (CI)	0.951	0.765
3. Knowledge Sharing	0.896	0.656
4. Collaboration (CLB)	0.919	0.741
5. Virtual Global Team Performance (VGTP)	0.918	0.788

From table 6 it can be seen that all the constructs are satisfactory with the CR value above 0.7 and AVE value above 0.5. Once, the convergent validity of the constructs is confirmed, discriminant validity of the constructs is evaluated. Discriminant validity is a scientific measurement concept that is frequently used in conjunction with construct validity. The discriminant validity of a construct is inferred to be achieved when all redundant items in the construct are removed and the remaining items strongly correlate with the construct. "In other words, discriminant validity captures some important aspects of the goodness-of-fit model requirement. Establishing discriminant validity between exogenous variables in the research assessment framework is critical (Hair et al. 2011). They also stated that the correlation between them should be less than 0.85, and that a correlation coefficient of less than 0.9 is acceptable, according to Pallant (2011). Because redundant items were removed and the correlation between the sub-constructs was less than 0.85, the results demonstrated that all constructs in this study met the acceptable requirement." Finally, the research constructs satisfy the requirements for convergent, construct, and discriminant validity. This means that the entire set of constructs used in this study could be used to analyse structural equation modelling.

5.5 Structural Model

The structural model is used in the study to assess the relationship between the exogenous and endogenous constructs. "After determining the unidimensionality, reliability, and validity of the research constructs, the analytical model's next step is to merge all of the constructs into a single structural equation model using Analysis of Moment Structure (AMOS). The goal of the pull out is to show the causal relationships between the two constructs in accordance with the set hypotheses. The research assessment framework's exogenous and endogenous variables were organised. The exogenous variables connect the endogenous and exogenous variables, with the endogenous variable appearing at the end." In Figure 12, the relationship between each construct is represented by an arrow pointing in the direction of the hypothesis. In contrast, the model was used to examine the multidirectional links between all of the research constructs.

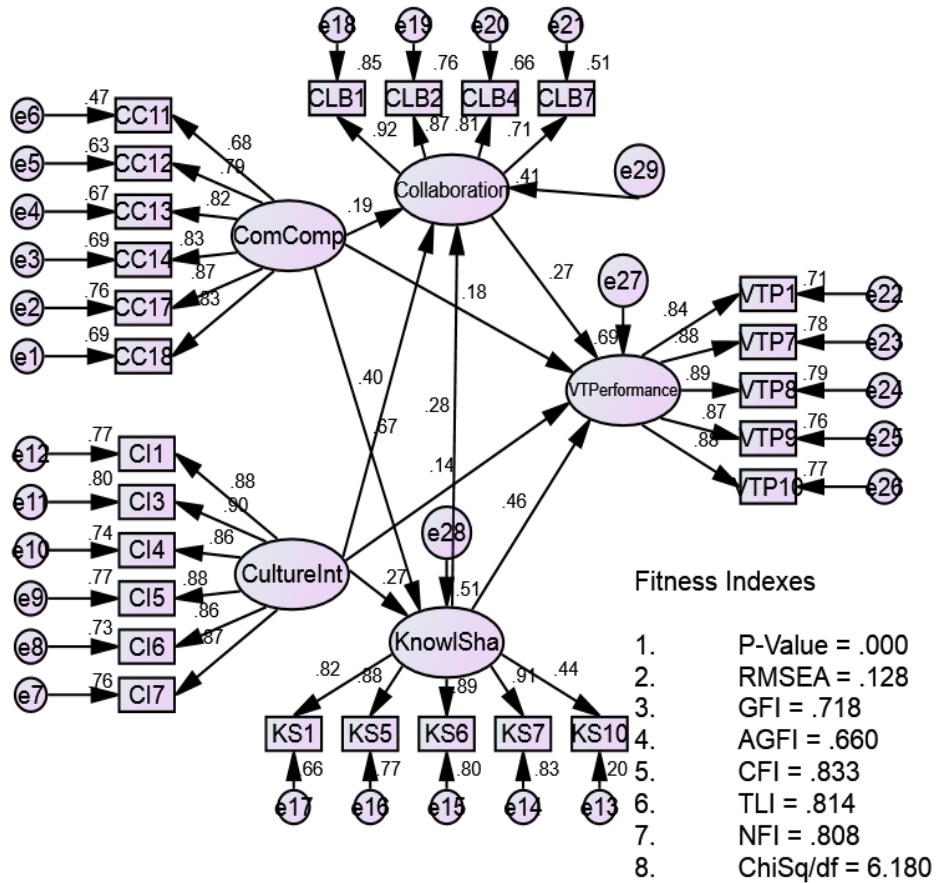


Fig. 12 - Structural model has not achieve goodness-of-fitness

Figure 12 shows that certain fitness indexes for the structural measurement model do not achieve the appropriate and sufficient level of goodness-of-fitness indexes. The observed factor loadings for all constructions were greater than 0.5, however fitness indexes were below the acceptable limit. As a result, modification indices were looked at to see if there were any redundant elements,”and they were correlated to improve the model’s goodness-of-fitness indexes. Hence, the model in the current state is not acceptable and needs modifications to optimize. Optimization of the model resulted in achieving the satisfactory fitness indexes values as presented in Figure 13.

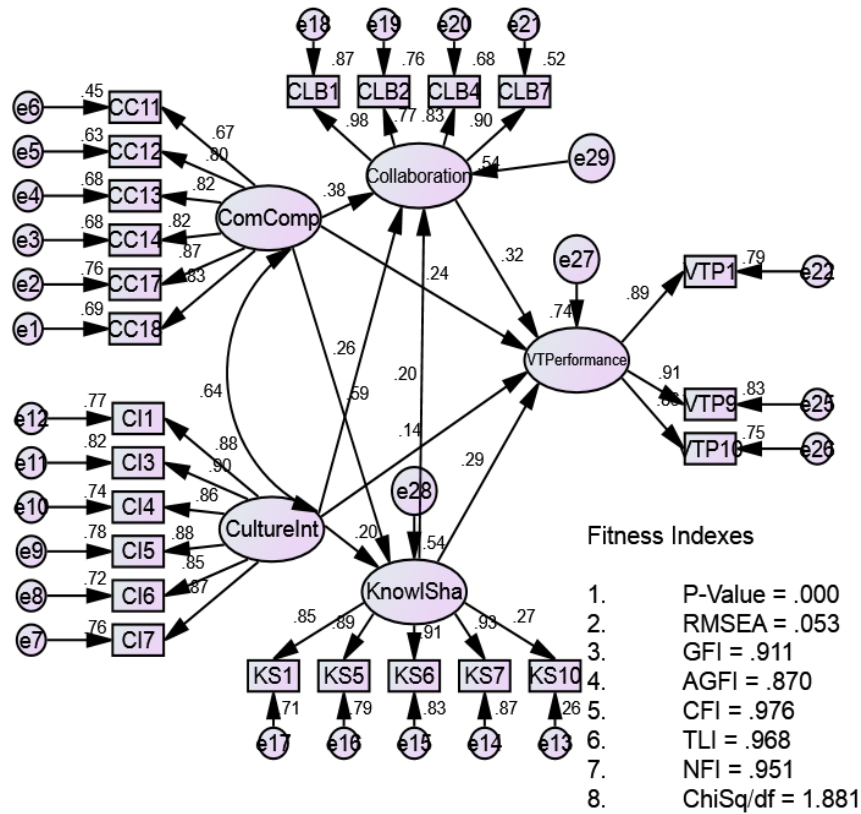


Fig. 13 - Structural model achieved goodness-of-fitness

5.6 Hypothesis Testing

The strength of the relationship between the variables was assessed based on the hypothesis devised as elaborated in Figure 1 and Table 1 above. A total 13 hypothesis were set where nice hypothesis defined direct effect while 4 hypothesis represented mediating effect. The hypothesis testing was perform for based on weigh and p values for each relation. The results of nince direct hypothesis are shown in Table 7.

Table 7 - Results of Direct Effect

Hypothesis	Statement	Weight	P	Remarks
H1	Communicative Competence (CC) has significant positive relationship with virtual global team performance (VGTP): CC → VGTP	0.245	***	Supported
H2	Communicative Intelligence (CI) has significant positive relationship with virtual global team performance (VGTP): CI → VGTP	0.136	0.005	Supported
H3	Knowledge sharing (KS) has significant positive relationship with virtual global team performance (VGTP): KS → VGTP	0.294	***	Supported
H4	Collaboration (CLS) has significant positive relationship with virtual global team performance (VGTP): CC → VGTP	0.322	***	Supported
H5	Communicative competence (CC) has significant positive relationship with knowledge sharing (KS): CC→KS	0.589	***	Supported
H6	Cultural Intelligence (CI) has significant positive relationship with knowledge sharing (KS): CI → KS	0.200	0.002	Supported
H7	Communicative competence (CC) has significant positive relationship with collaboration (CLB): CC→CLB	0.382	***	Supported
H8	Cultural Intelligence (CI) has significant positive relationship with Collaboration (CLB): CI→CLB	0.255	***	Supported
H9	Knowledge sharing (KS) has significant positive relationship with Collaboration (CLB): KS→CLB	0.197	0.003	Supported

Table 7 depicts that all the direct paths are significant. Thus all the nine hypothesis are accepted for explaining the relationship between the variables. Similarly, from table 1 it can be seen that there are four indirect effects which represented mediating effect of knowledge sharing and collaboration with cultural intelligence, communicative competence and virtual global team performance. To assess these indirect effects, the model was run separately for each hypothesis as shown in Figure 14 to Figure 17.

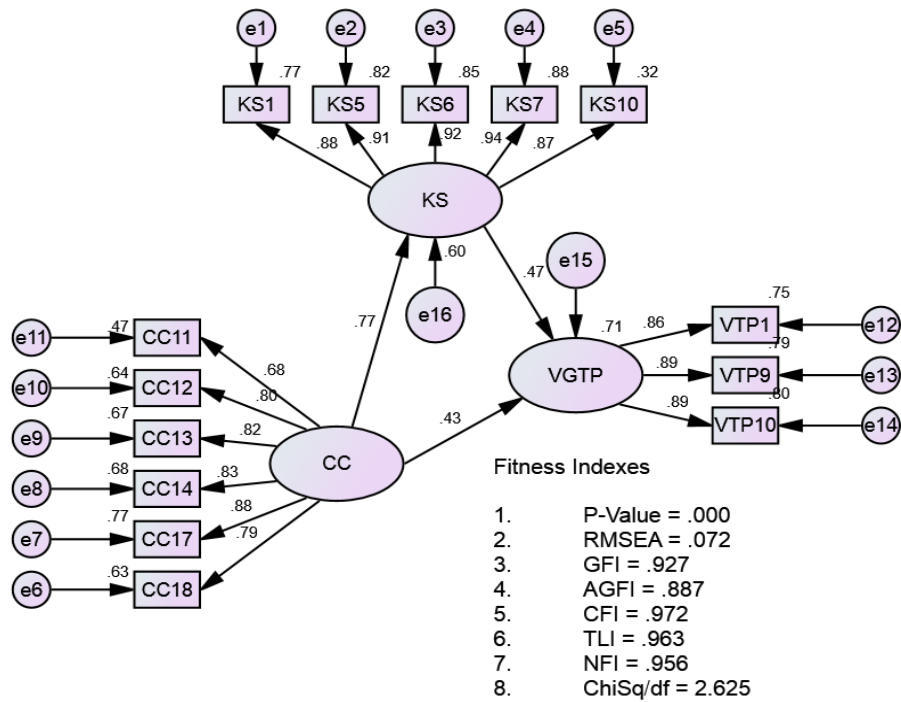


Fig. 14 - Mediation effect of knowledge sharing on communicative competence and virtual global team performance

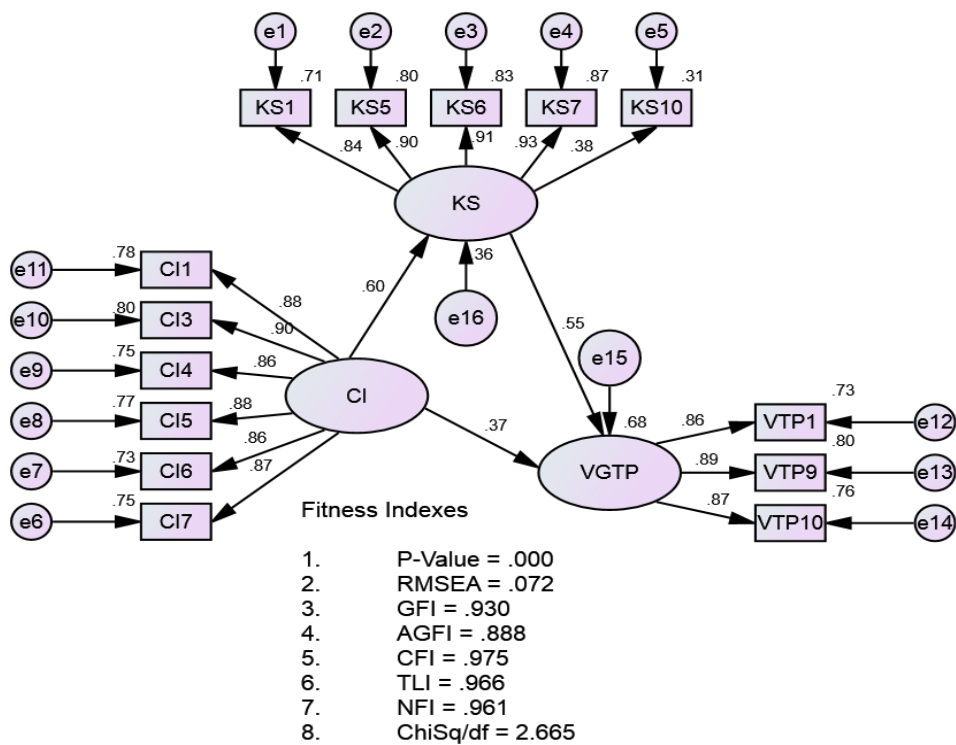


Fig. 15 - Mediation effect of knowledge sharing on cultural intelligence and virtual global team performance

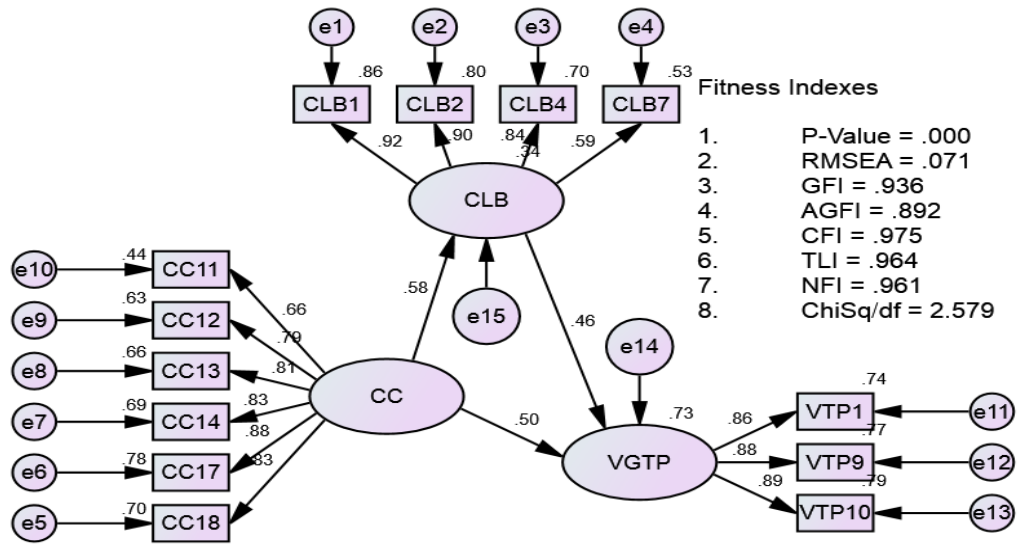


Fig. 16 - Mediation effect of collaboration on communicative competence and virtual global team performance

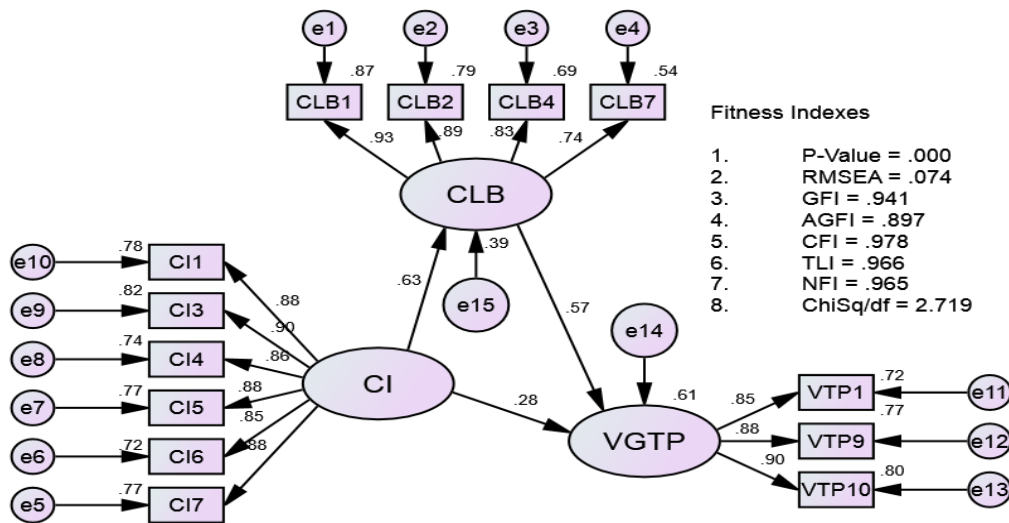


Fig. 17 - Mediation effect of collaboration on cultural intelligence and virtual global team performance

From figure 14 to figure 17, it can be perceived that goodness fit indices are reached at satisfactory level for each case as required. This means that the developed relations and models are satisfactory. The results of hypothesis are presented in table 8.

Table 8 - Results of indirect/ mediating effects

Hypotheses	Statements	Weight	P	Remark
H10	Collaboration (CLB) mediates the relationship between communicative competence (CC) and Virtual Global Team Performance (VGTP): CC → CLB → VGTP	0.269	***	Supported
H11	Collaboration (CLB) mediates the relationship between Cultural Intelligence (CI) and Virtual Global Team Performance (VGTP): CI → CLB → VGTP	0.358	***	Supported
H12	Knowledge sharing (KS) mediates the relationship between communicative competence (CC) and virtual global team performance: CC → KS → VGTP	0.361	***	Supported
H13	Knowledge sharing (KS) mediates the relationship between cultural intelligent (CI) and virtual global team performance: CC → KS → VGTP	0.326	***	Supported

The results of mediation hypotheses testing as in Table 8 show that all the indirect effects are statistically significant. Accordingly, the hypotheses were supported and accepted.

6. Conclusion

This paper presented the formulation of Model on factors affecting Virtual Global Team Performance in UAE. The model consisted of two independent variables namely Communication Competence and Cultural Intelligence constructs, one dependent variable which is Virtual Global Team Performance construct and two mediating variables which are Collaboration and Knowledge Sharing construct. The model was constructed using the questionnaire data collected from 318 respondents who were employee in UAE organizations. After the model was developed, it was assessed at each of measurement components for fitness criteria. Once, all the measurement components had achieved the goodness-of-fit criteria, the measurement components were tied up to form structural model according to the conceptual framework. The structural model was assessed for achieving the fitness criteria. It was found that developed structural model has positive effect in explaining the relationship between the variables measuring the performance virtual global teams. Further, from hypothesis tests, it was seen that all the designed paths are significant which confirm that the factors determined for explaining virtual global team performance can be used as guideline for bringing changes in the current practices. Also, mediating effect of collaboration and knowledge sharing is confirmed with positive significance. This means that knowledge sharing and collaboration can play important role in the success or failure of the performance of virtual teams.

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