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Research Article

Moderating Factors of Personality and Social Support on the Relationship between Working Environmental Factors, Spiritual Intelligence on Emotional Intelligence

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ABSTRACT

Emotional intelligence has been cited as one of the innovations in this century particularly valuable in testing the low-order personality trait, of which is the trait model of emotional intelligence. This study investigates the role of moderating factors i.e. social support and personality in moderating the relationship between organisational culture, cultural competence, cultural awareness, spiritual intelligence, and emotional intelligence in 704 doctors working in five different state hospitals in Malaysia. The state hospitals chosen were from five different regions in Malaysia. The results of this study in its Structural Equation Modelling (SEM) analysis showed that there are moderating effects of social support and personality in the relationship between organisational culture, cultural competence, cultural awareness, spiritual intelligence, and emotional intelligence. In conclusion, this study has been successful in investigating the moderating effects of emotional intelligence of doctors in government hospitals in Malaysia and its associated working environmental factors and spiritual intelligence. This study can be used as a novel study that investigates emotional intelligence among doctors in government hospitals in Malaysia. There is a need to conduct further research to explore interventions that are suitable to be carried out in MOH facilities to foster emotional intelligence among MOH doctors. There are opportunities to be taken at MOH facilities where the application of healthy organizational cultural values, high spiritual intelligence, and high awareness and cultural competence can be practiced considering that these factors are found to affect the emotional intelligence of MOH doctors.

Keywords: Emotional Intelligence, Working Environmental Factors, Spiritual Intelligence, Cultural, Organisational Culture, Personality, Social Support

INTRODUCTION

It is noted often that the concept of emotional intelligence in realm of psychology is said to be new. As explained in the introductory section, the ideas and concepts that define the context of emotional intelligence first appeared in the 1980s, during when Gardner initially introduced his theory of multiple intelligences. Accordingly, there are two different kinds of intelligence closely related to emotional intelligence, namely interpersonal intelligence and intrapersonal intelligence. It was later introduced into the world of psychology by Peter Salovey and John Mayer in

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their published literature in 1990 (1). Only in 1995, a publication titled “Emotional Intelligence: Why It Can Matter More than IQ” by Daniel Goleman successfully popularized the concept of emotional intelligence (2).

Emotional intelligence is often themed as a "constellation of emotional perception" (which is trait emotional intelligence) or a combination of abilities for processing emotion-related information. In alternative terms, emotional intelligence refers to the ability of individuals to make a link between the emotions that they feel and come up with reasonings which enable them to guide their actions and as a loop effect, use the reasonings to guide their emotions (1,3,4).

Emotional intelligence is also defined as an individual's capacity to identify, use, comprehend, and control emotional information which is looked upon as a critical protective resource. Emotional intelligence has also been shown to serve as a protective factor in averting psychological and behavioral disorders in children both adults and children. It can aid in the development of post-traumatic growth and more intimate interpersonal relationships. Emotional intelligence has been found to enhance the influence of another protective component (e.g., social support) and therefore, reduces stress. As per previous research, emotional intelligence can act as a moderator in the association between social support and adolescent cognition, as well as the association between stress and mental health Emotional intelligence has been found to aid individuals in constructively coping with unfavorable external circumstances and individuals with a high level of emotional intelligence frequently experience less stress and are more likely to have increased post-trauma growth.

LITERATURE REVIEW

Personality is defined as “a set of characteristics and individual differences that distinguish an individual from other people”. In recency, the issue of personality has been hotly debated and put forth in the world of literature, such as the “Five-Factor Model” (5) or the “Five Alternative Model: neuroticism–anxiety, aggression–hostility, activity, sociability and impulsive non-social sensation seeking” (6) which are all frequently discussed in biological evolutionary terms. Personality and subjective well-being have consistently been linked with each other and proven to co-relate (7). A meta-analysis estimated that there are five main dimensions which accounted for about 40% to 60% of the variance in personal well-being (7). Therefore, it is often a subject of debate that the involved dimension of personality has a bigger impact than contextual and demographic factors such as gender, age, income, and education (8). The literature which has been put forth here is based on the concept that the well-being to happiness approach is somewhat tied to the meaning of personal and life accomplishment and the concept that well-being is achieved upon a person's capacity to fully function (9) which include personal strengths and resources, meaning in life, purpose, and authenticity (10). This research is based on the fact that personality plays a pivotal role in subjective well-being, as can other factors such as depression, anxiety, locus of control, self-esteem, and confidence. There were other studies laid out previously: Diener et al. (8) put forth that personality traits can dictate the level of subjective well-being (8); Di Fabio and Saklofske (11) suggested that personality and emotional intelligence were viewed as a trait (11); and Lampropoulou (12) debated the worth of personality factors as prognostic factor of subjective well-being (12), which has shown an important relationship between psychological well-being and personality variables (13).

Aldawsari, Adams & Kohn (14) showed the same social support which was received by an individual in the form of relationships with family members, new and old friends from either the same circle or outside of the circle of similarities, and relationships with significant others will provide an individual with the ability to act in a new environment, a sense of control, and support to face whatever challenges thrown to the individual effectively (14).

Social support has been shown to be a valuable mediating variable in testing the relationship between life satisfaction and trait emotional intelligence. Several theorists have suggested that emotional intelligence can aid in helping individuals obtain social competence in the world full of complexities of the modernisations, and thus will result in a richer social network and contribute to another level of well-being (15). Empirical research has been shown to support this theory of mediation model of social network. For one thing, what has been classified as a type of personal disposition, the trait of emotional intelligence has been shown to be positively associated with good social support (16,17). In view of this, previous studies have been conducted to prove this theory and these studies have shown that

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individuals who have enough social support achieve a better sense of satisfaction with their surroundings and lives in general (18,19). On top of this, social support has been proven to be a mediating variable in the association between life satisfaction and emotional intelligence in young adults, regardless of whether the trait measurement or the ability model is used as a measurement (20,21). Therefore, it is noted that emotional intelligence may steer the individual to greater satisfaction with their lives by promoting sufficient level of social support by the externals (20). It is important to study the emotional intelligence among Malaysian doctors as this study has been missing in the context of emotional intelligence research among Malaysian doctors and the modifiable factors, if any in order to improve emotional intelligence and hence improve quality of work, job satisfaction, reduce burnout, and increase job performance.

The objective of the study is to investigate the role of personality and social support as moderating factors in the relationship between organisational culture, cultural awareness, cultural competence, and spiritual intelligence with emotional intelligence. This aim is used as literature review has shown that there are modifiable factors known to effect emotional intelligence, however will be baseless if moderating factors are not taken into account.

METHODOLOGY

Study Design

This is a cross-sectional study conducted in all government hospitals in each Malaysian state zone. The design of this study was chosen to determine the emotional intelligence score among doctors of the Ministry of Health Malaysia. Data collection for the study began in mid-2022 and ended in mid-2023. The target population of the study is doctors at the Malaysian Ministry of Health. The study population was doctors at the Ministry of Health Malaysia hospitals consisted of doctors of various ethnicities and grades. The sampling frame of the study is a list of doctors who work permanently in hospitals of the Ministry of Health Malaysia. The doctors were given hardcopy questionnaires and samples were collected and keyed into the template that was created. The anonymity of the participants were kept and confidentiality ensured. The measurement instruments were presented in the study by Neong et al (2024) (42).

Sampling Method

The sampling method used in this study is a multi-stage sampling method, followed by convenience sampling.

The inclusion criteria were i) doctors who work full-time at the Ministry of Health hospitals; ii) doctors of all grades and are on duty at the Ministry of Health hospitals; iii) doctors who have served for at least one year at the Ministry of Health hospitals; and iv) doctors who are Malaysians.

The hypotheses tested in this study were:

H1) personality moderates the relationship between CVF and SSEIT;
H2) social support moderates the relationship between CVF and SSEIT;
H3) personality moderates the relationship between CCA and SSEIT;
H4) social support moderates the relationship between CCA and SSEIT;
H5) personality moderates the relationship between SISRI and SSEIT; and
H6) social support moderates the relationship between SISRI and SSEIT.

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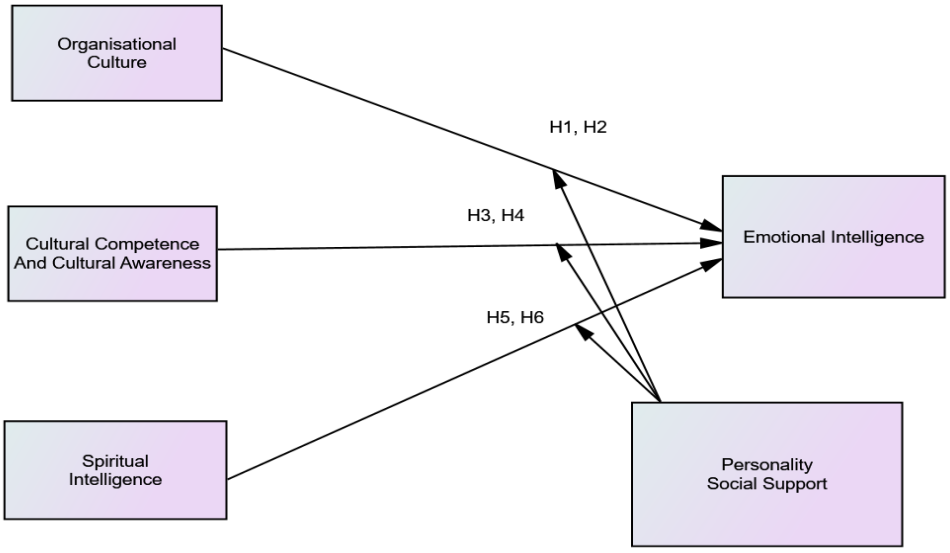

Figure 1: Theoretical framework of the development of hypotheses

Figure 1 shows the development of the theoretical framework of the hypotheses tested in this study.

RESULTS AND DISCUSSION

The descriptive statistics of the study has been published in Neong et al (2024) (42).

The Cronbach's alpha of each scale and the results of correlations among variables were presented in the study by Neong et al (2024) (42).

Harman's One Factor Solution has been used to reduce common method bias, as shown in the study by Neong et al (2024) (42).

Table 1 shows the three categories of model fit and their level of acceptance.

Table 1: The three categories of model fit and their level of acceptance

Name of category	Name of index	Level of acceptance
Absolute Fit Index	**RMSEA**	RMSEA < 0.08
	GFI	GFI > 0.85, Ideal if > 0.90
Incremental Fit Index	AGFI	AGFI > 0.85, Ideal if > 0.90
	CFI	CFI > 0.85, Ideal if > 0.90
	TLI	TLI > 0.85, Ideal if > 0.90
	NFI	NFI > 0.85, Ideal if > 0.90
Parsimonious Fit Index	**ChiSq /df**	Chi-Square/ df < 5.0, Ideal if < 3.0

***The indexes in bold are recommended since they are frequently reported in literatures
Source: The sources for the information are from (22-25)

The CFA Procedure for Validating Interpersonal Social Support (ISEL-12) construct

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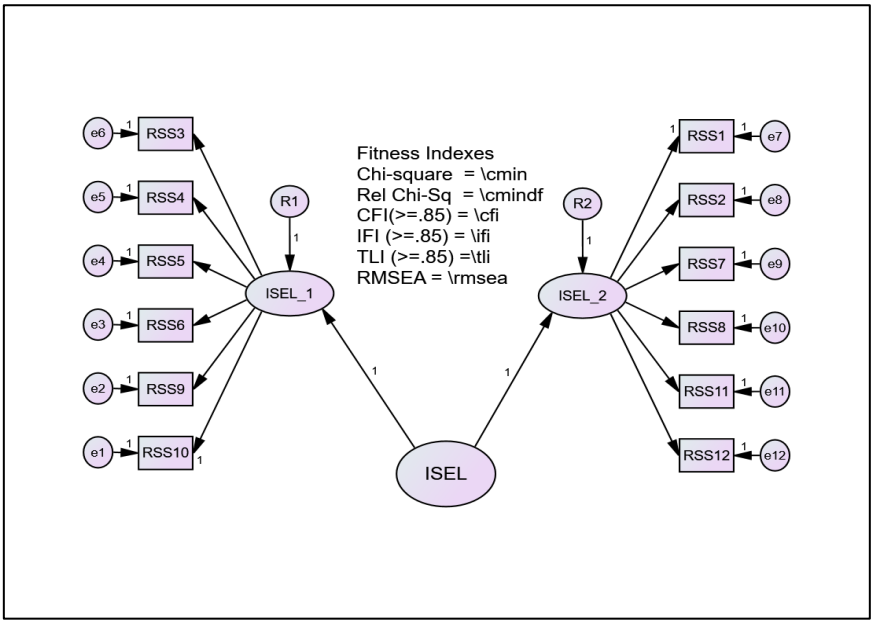

Figure 2: Measurement Model for Construct ISEL

The ISEL is a second order construct, which consists of two sub-constructs or components as presented in Figure 2. The CFA procedure produces fitness indexes for the whole construct, the factor loading for every sub-construct (component), as well as the factor loading for every item.

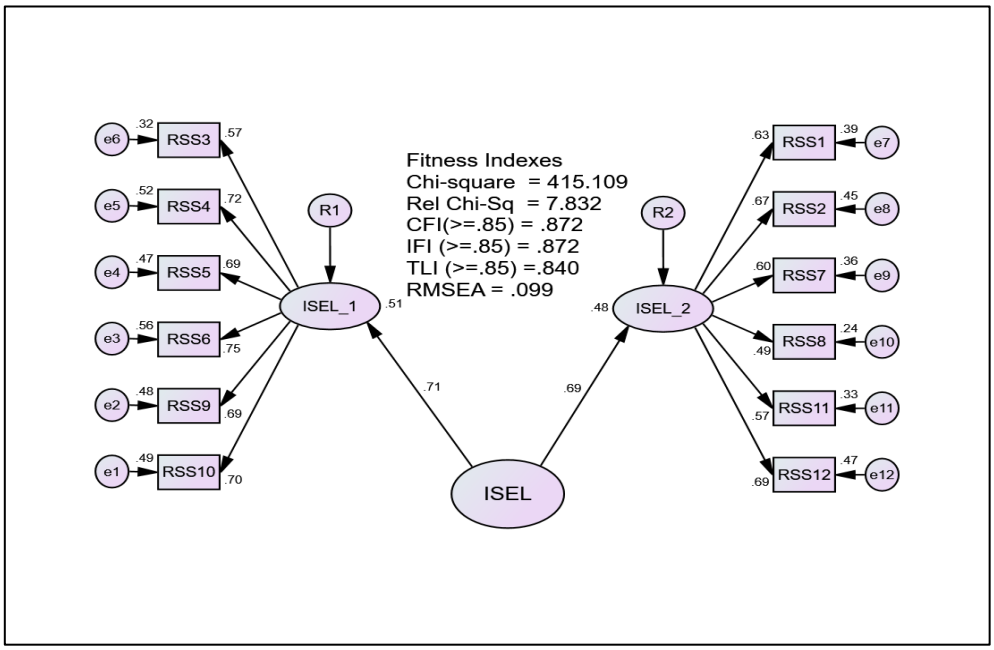

Figure 3: Initial CFA result for Construct ISEL

Thus, using the results in Figure 3, we could assess the validity and reliability for this particular construct.

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The Assessment for Construct Validity

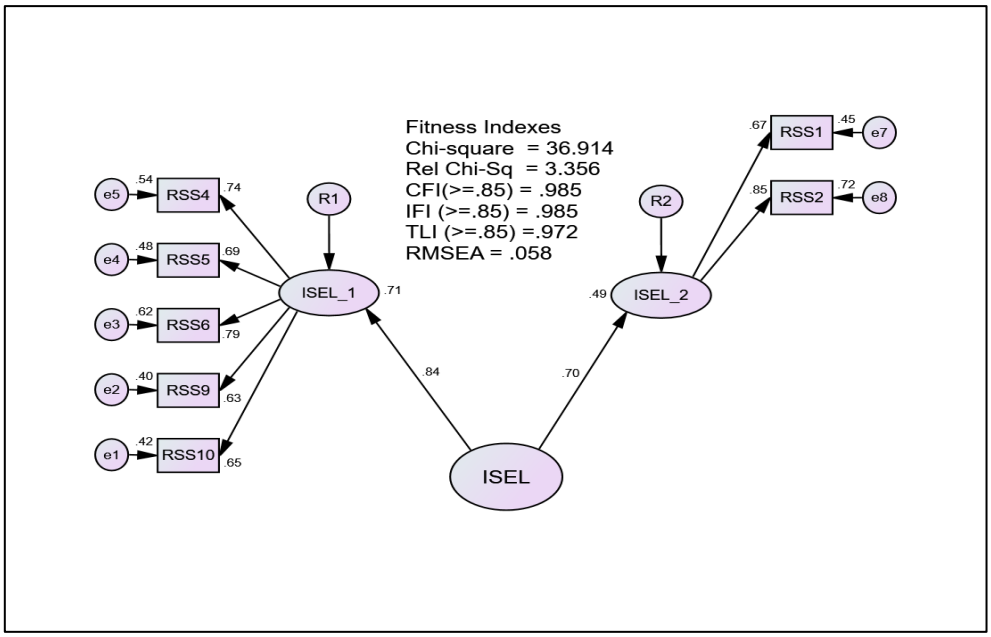

Figure 4: Final CFA result for Construct ISEL after item deletion

The fitness indexes in Figure 4 have met the threshold values as stated in Table 1. The Absolute Fit category namely RMSEA is 0.058 (achieved the threshold of less than 0.08), the Incremental Fit category namely CFI is 0.985 (achieved the threshold of greater than 0.90), and the Parsimonious Fit category namely the ratio of Chisq/df is 3.356 (achieved the threshold of less than 5.0). Thus, the measurement model of ISEL-12 has achieved the requirement for construct validity (26-33).

The Assessment for Convergent Validity and Composite Reliability

For the assessment of Convergent Validity, the study needs to come up with Average Variance Extracted (AVE). The construct will reach Convergent Validity if its AVE is more than the threshold value of 0.50 (29,30,34,35,36,37,38,39,40). As for testing the Composite Reliability (CR), the study needs to come up with the CR and its value should be more than the threshold value of 0.6 for this reliability to be presented (24,25).

The Average Variance Extracted (AVE) and Composite Reliability (CR) for the main constructs and their respective sub-constructs are computed and presented in Table 2.

Table 2: The AVE and CR for ISEL Construct.

Construct	Item	Factor Loading	CR (Above 0.6)	AVE (Above 0.50)
ISEL	ISEL_1	0.84	**0.747**	**0.598**
	ISEL_2	0.70		
ISEL_1	RSS4	0.74	**0.858**	**0.552**
	RSS5	0.69		
	RSS6	0.79		
	RSS9	0.83		
	RSS10	0.65		
ISEL_2	RSS1	0.67	**0.736**	**0.586**
	RSS2	0.85		

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The values of AVE (Average Variance Extracted) and CR (Composite Reliability) for this construct and all of its components are greater than 0.50 and 0.60 respectively. Thus, the study can conclude that the Convergent Validity and Composite Reliability for this particular construct is achieved (22-25).

The CFA Procedure for Validating TIPI construct

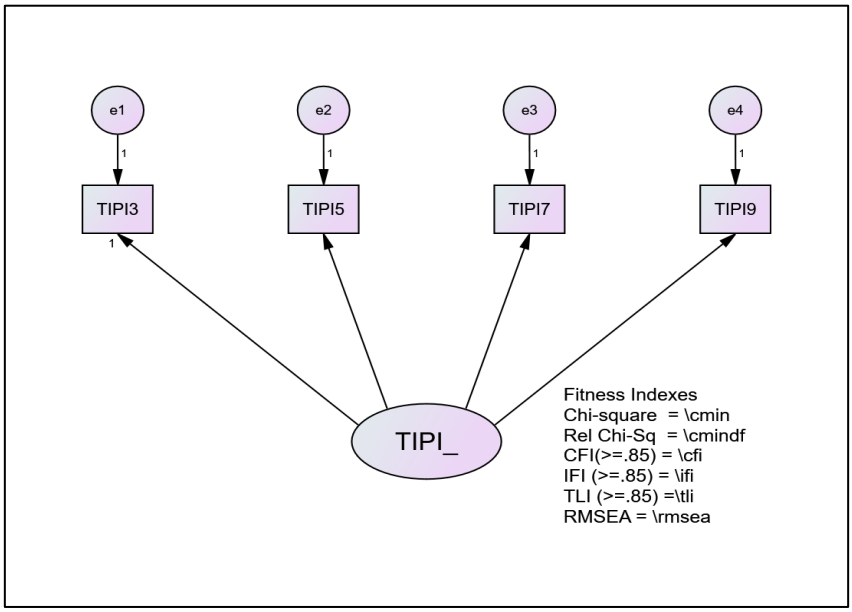

Figure 5: Measurement Model for Construct TIPI

As has been explained earlier, the TIPI is a first order construct with four items as presented in Figure 5. The CFA procedure produces fitness indexes for the construct, and the factor loadings for every item are presented.

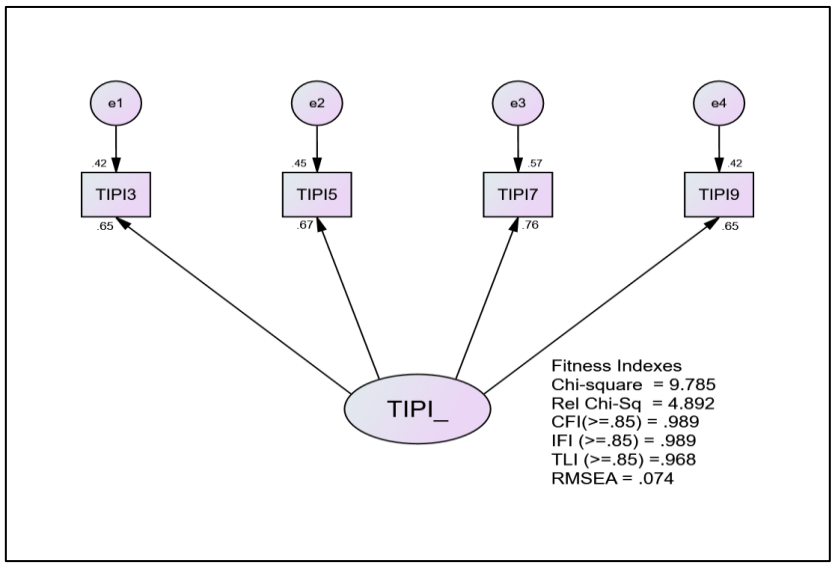

Figure 6: Final CFA result for Construct TIPI after no item deletion

Thus, using the results in Figure 6, we could assess the validity and reliability for this particular construct.

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The Assessment for Construct Validity

The fitness indexes in Figure 6 have met the threshold values as stated in Table 1. The Absolute Fit category namely RMSEA is 0.074 (achieved the threshold of less than 0.08), the Incremental Fit category namely CFI is 0.989 (achieved the threshold of greater than 0.90), and the Parsimonious Fit category namely the ratio of Chisq/df is 4.892 (achieved the threshold of less than 5.0). Thus, the measurement model of TIPI has achieved the requirement for construct validity (26-33).

The Assessment for Convergent Validity and Composite Reliability

For the assessment of Convergent Validity, the study needs to come up with Average Variance Extracted (AVE). The construct will reach Convergent Validity if its AVE is more than the threshold value of 0.50 (29,30,34,35,36,37,38,39,40). As for testing the Composite Reliability, the study needs to come up with the CR and its value should be more than the threshold value of 0.6 for this reliability to be presented (24,25).

The Average Variance Extracted (AVE) and Composite Reliability (CR) for the main constructs and their respective sub-constructs are computed and presented in Table 3.

Table 3: The AVE and CR for TIPI Construct.

Construct	Item	Factor Loading	CR (Above 0.6)	AVE (Above 0.50)
TIPI	TIPI3	0.65	**0.834**	**0.560**
	TIPI5	0.67		
	TIPI7	0.76		
	TIPI9	0.89		

The values of AVE (Average Variance Extracted) and CR (Composite Reliability) for this construct and all of its components are greater than 0.50 and 0.60 respectively. Thus, the study can conclude that the Convergent Validity and Composite Reliability for this particular construct is achieved (22-25).

H_1	Personality moderates the relationship between CVF and SSEIT	Multi Group Analysis in SEM

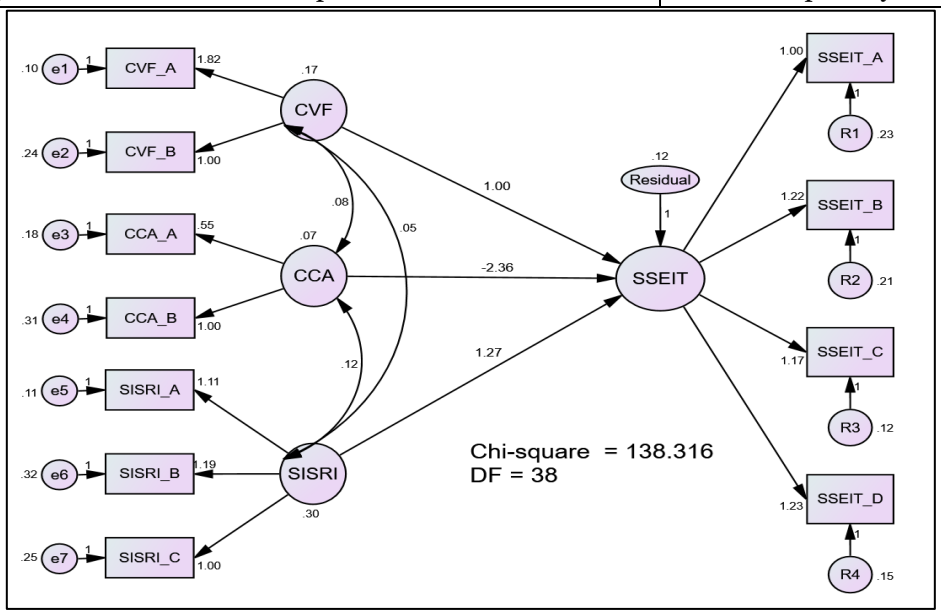

Figure 7: The result for Constrained Model

Figure 7 shows the result of the SEM model for constrained model at CVF.

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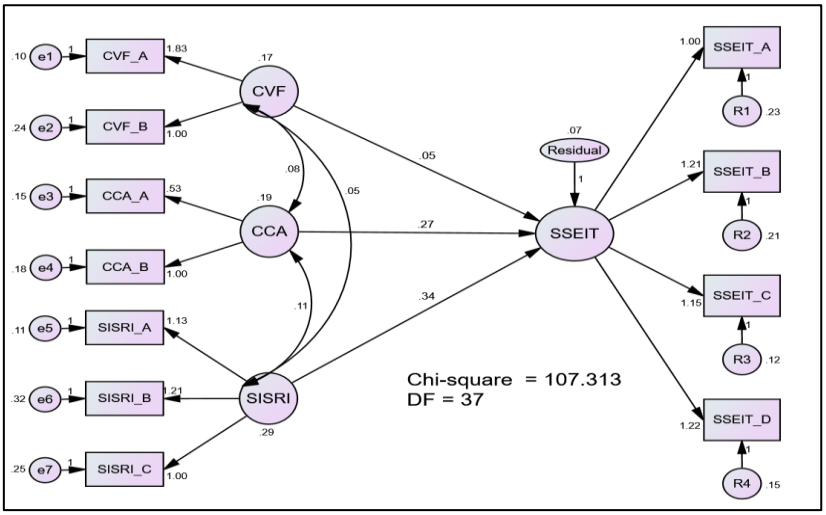

Figure 8: The result for Unconstrained Model

Figure 8 shows the result of the SEM model for unconstrained model at CVF. The important findings from Figure 7 and Figure 8 are summarised in Table 4.

Table 4: The procedure for testing moderation effect

	Constrained Model	**Unconstrained Model**	**The difference in Chi-Square**	**Result on Moderation**	**Result on Hypothesis**
Chi-Square	138.316	107.713	30.603	**Significant**	Supported
DF	38	37	1		
Ha: **Personality** of respondents moderate the relationship between **CVF** and **SSEIT**					**Supported**

Table 4 shows that the differences in Chi Square values between the constrained and unconstrained model is higher than the threshold value of Chi-Square with 1 degree of freedom, which is 3.84. Thus, the study concludes that the moderation occurs in the path (24,25,41).

H_2	Social Support moderates the relationship between CVF and SSEIT	Multi Group Analysis in SEM

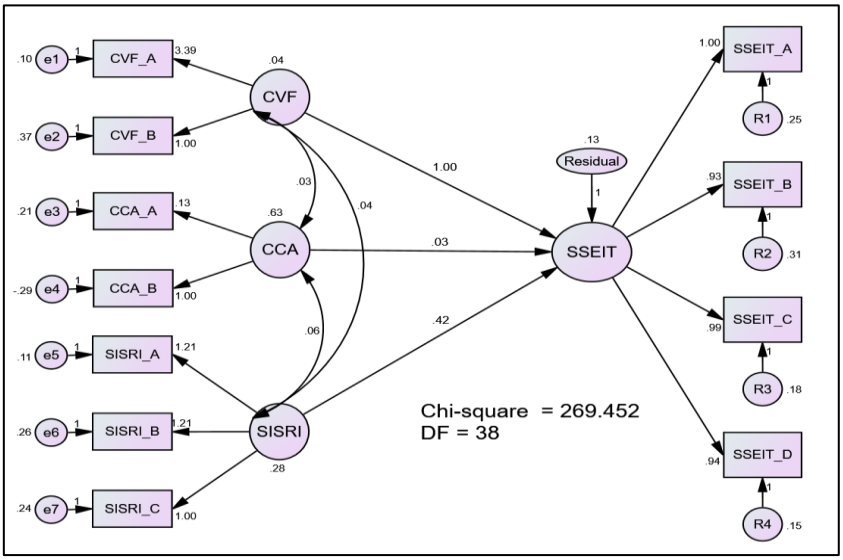

Figure 9: The result for Constrained Model

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Figure 9 shows the result of the SEM model for constrained model at CVF.

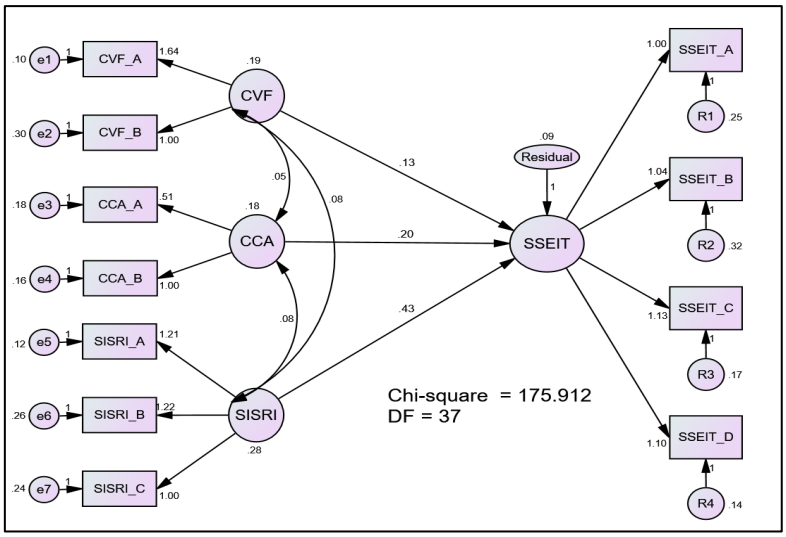

Figure 10: The result for Unconstrained Model

Figure 10 shows the result of the SEM model for unconstrained model at CVF. The important findings from Figure 9 and Figure 10 are summarised in Table 5.

Table 5: The procedure for testing moderation effect

	Constrained Model	**Unconstrained Model**	**The difference in Chi-Square**	**Result on Moderation**	**Result on Hypothesis**
Chi-Square	269.452	175.912	93.540	**Significant**	Supported
DF	38	37	1		
Ha: **Social support** of respondents moderate the relationship between **CVF** and **SSEIT**					**Supported**

Table 5 shows that the differences in Chi Square values between the constrained and unconstrained model is higher than the threshold value of Chi-Square with 1 degree of freedom, which is 3.84. Thus, the study concludes that the moderation occurs in the path (24,25,41).

H_3	Personality moderates the relationship between CCA and SSEIT	Multi Group Analysis in SEM

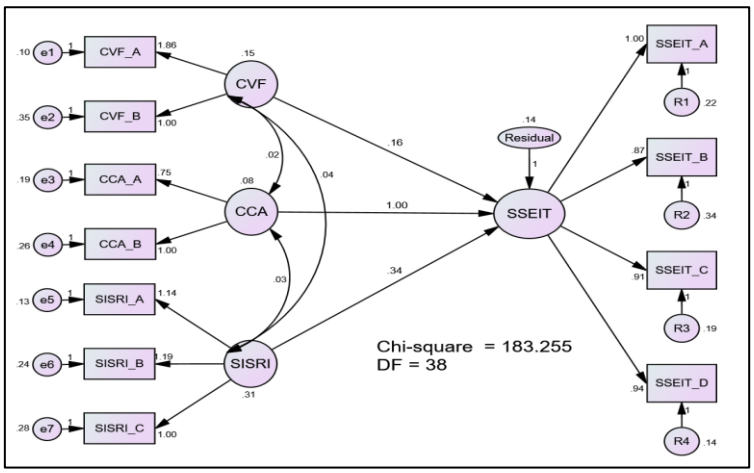

Figure 11: The result for Constrained Model

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Figure 11 shows the result of the SEM model for constrained model at CCA.

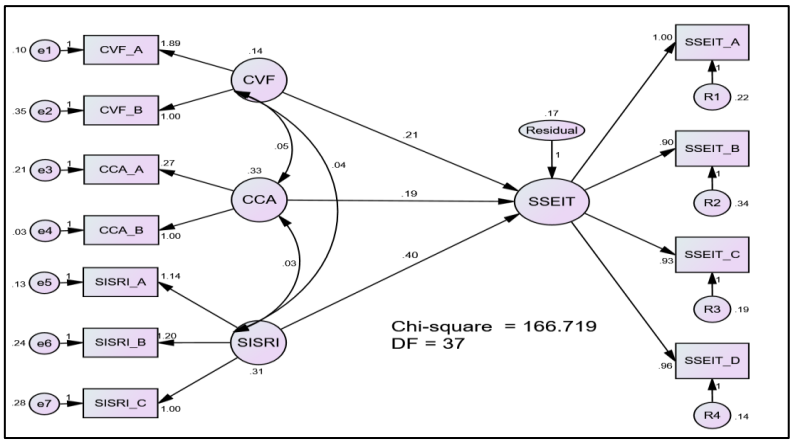

Figure 12: The result for Unconstrained Model

Figure 12 shows the result of the SEM model for unconstrained model at CCA. The important results from Figure 11 and Figure 12 are summarised in Table 6.

Table 6: The procedure for testing moderation effect

	Constrained Model	**Unconstrained Model**	**The difference in Chi-Square**	**Result on Moderation**	**Result on Hypothesis**
Chi-Square	183.255	166.719	16.656	**Significant**	Supported
DF	38	37	1		
Ha: **Personality** of respondents moderate the relationship between **CCA** and **SSEIT**					**Supported**

Table 6 shows that the differences in Chi Square values between the constrained and unconstrained model is higher than the threshold value of Chi-Square with 1 degree of freedom, which is 3.84. Thus, the study concludes that the moderation occurs in the path (24,25,41).

H_4	Social Support moderates the relationship between CCA and SSEIT	Multi Group Analysis in SEM

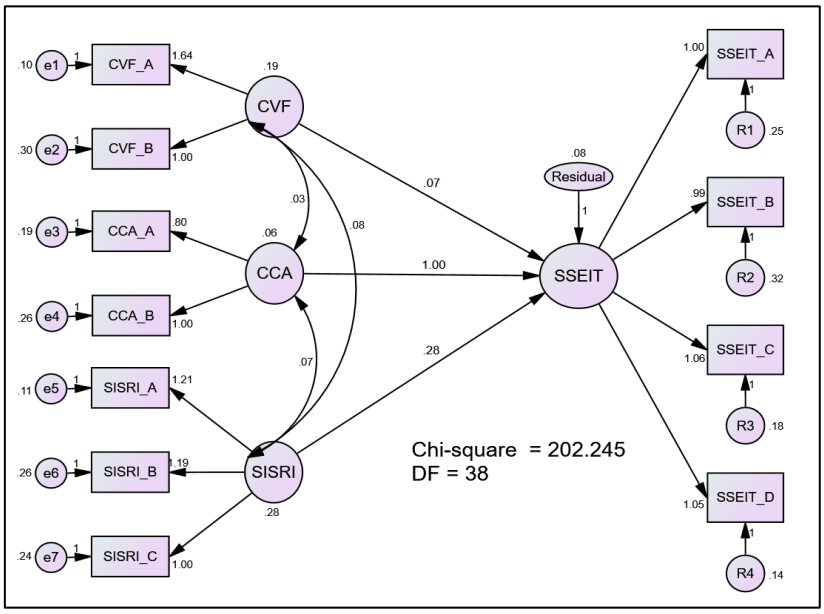

Figure 13: The result for Constrained Model

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Figure 13 shows the result of the SEM model for constrained model at CCA.

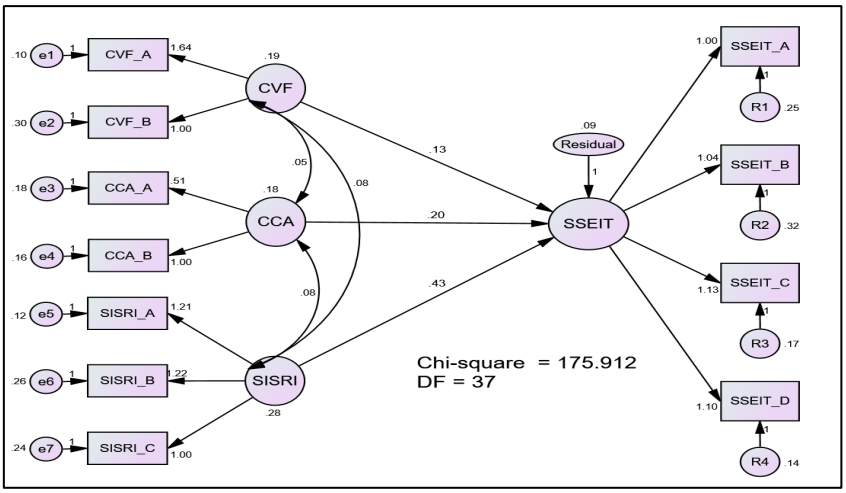

Figure 14: The result for Unconstrained Model

Figure 14 shows the result of the SEM model for unconstrained model at CCA. The important results from Figure 13 and Figure 14 are summarised in Table 7.

Table 7: The procedure for testing moderation effect

	Constrained Model	**Unconstrained Model**	**The difference in Chi-Square**	**Result on Moderation**	**Result on Hypothesis**
Chi-Square	202.245	175.912	26.333	**Significant**	Supported
DF	38	37	1		
Ha: **Social support** of respondents moderate the relationship between **CCA** and **SSEIT**					**Supported**

Table 7 shows that the differences in Chi Square values between the constrained and unconstrained model is higher than the threshold value of Chi-Square with 1 degree of freedom, which is 3.84. Thus, the study concludes that the moderation occurs in the path (24,25,41).

H_5	Personality moderates the relationship between SISRI and SSEIT	Multi Group Analysis in SEM

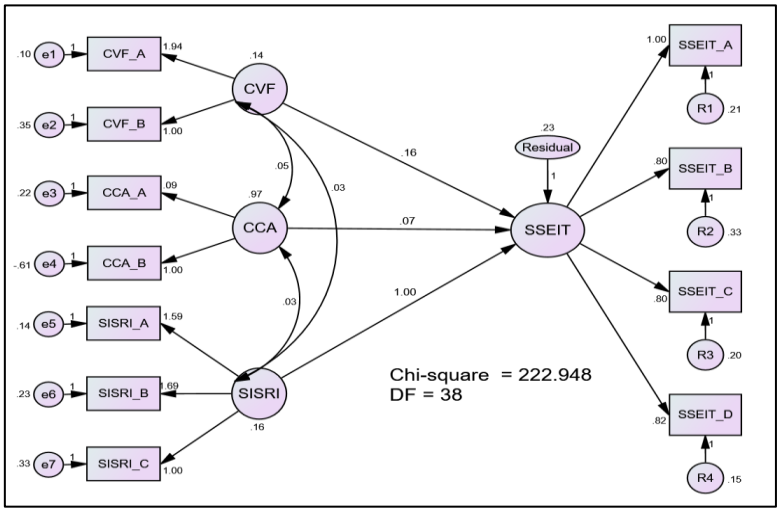

Figure 15: The constrained model

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Figure 15 shows the result of the SEM model for constrained model at SISRI.

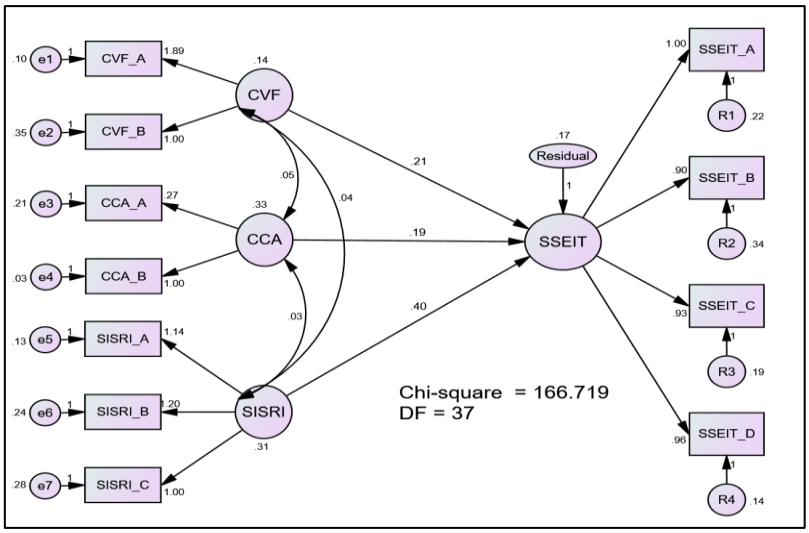

Figure 16: The unconstrained model

Figure 16 shows the result of the SEM model for unconstrained model at SISRI. The important results from Figure 15 and Figure 16 are summarised in Table 8.

Table 8: The procedure for testing moderation effect

	Constrained Model	**Unconstrained Model**	**The difference in Chi-Square**	**Result on Moderation**	**Result on Hypothesis**
Chi-Square	222.946	166.719	56.227	**Significant**	Supported
DF	38	37	1		
Ha: **Personality** of respondents moderate the relationship between **SISRI** and **SSEIT**					**Supported**

Table 8 shows that the differences in Chi Square values between the constrained and unconstrained model is higher than the threshold value of Chi-Square with 1 degree of freedom, which is 3.84. Thus, the study concludes that the moderation occurs in the path (24,25,41).

H_6	Social Support moderates the relationship between SISRI and SSEIT	Multi Group Analysis in SEM

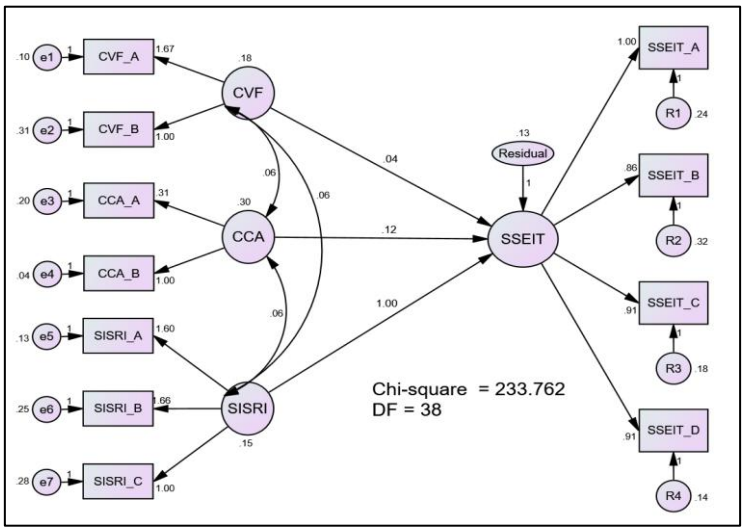

Figure 17: The constrained model

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Figure 17 shows the result of the SEM model for constrained model at SISRI.

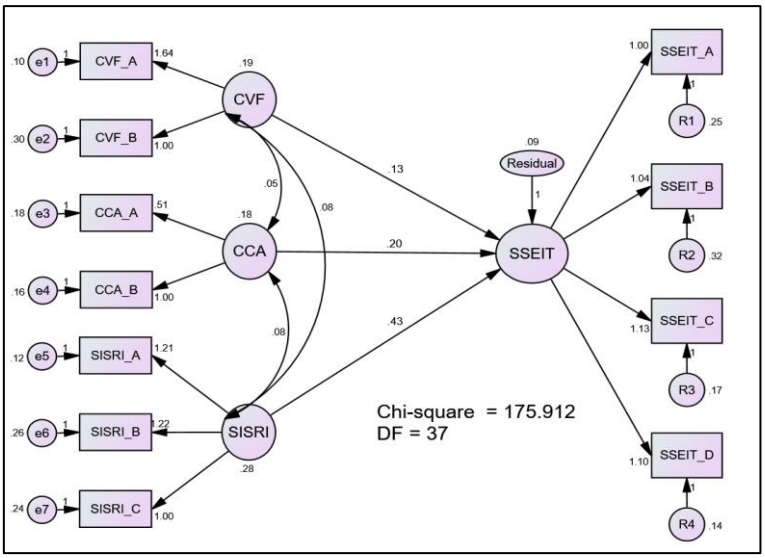

Figure 18: The unconstrained model

Figure 18 shows the result of the SEM model for constrained model at SISRI. The important results from Figure 17 and Figure 18 are summarised in Table 9.

Table 9: The procedure for testing moderation effect

	Constrained Model	**Unconstrained Model**	**The difference in Chi-Square**	**Result on Moderation**	**Result on Hypothesis**
Chi-Square	233.762	175.912	57.850	**Significant**	Supported
DF	38	37	1		
Ha: **Social support** of respondents moderate the relationship between **SISRI** and **SSEIT**					**Supported**

Table 9 shows that the differences in Chi Square values between the constrained and unconstrained model is higher than the threshold value of Chi-Square with 1 degree of freedom, which is 3.84. Thus, the study concludes that the moderation occurs in the path (24,25,41).

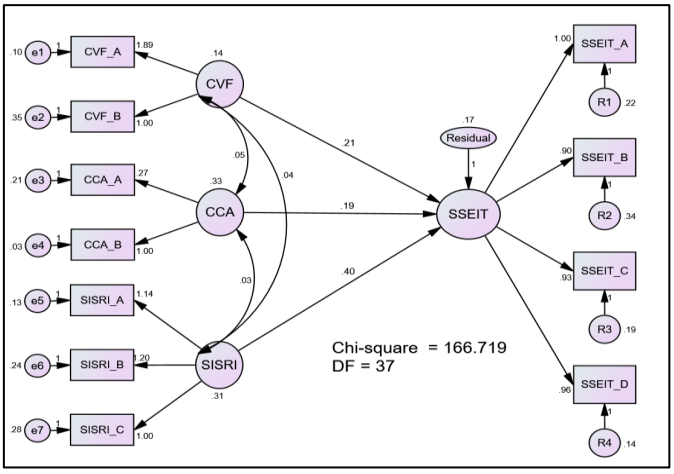

Figure 19: The results for Low Personality

Figure 19 shows the effect of low personality on CVF, CCA, and SISRI and its results are tabulated in Table 10.

Table 10 shows the regression path coefficient and its significance for low personality.

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Table 10: The regression path coefficient and its significance for Low Personality

			Estimate	S.E.	C.R.	P	Result
SSEIT	<---	CVF	0.213	0.083	2.552	0.011	Significant
SSEIT	<---	CCA	0.194	0.102	1.906	0.057	Not Significant
SSEIT	<---	SISRI	0.403	0.056	7.155	***	Significant

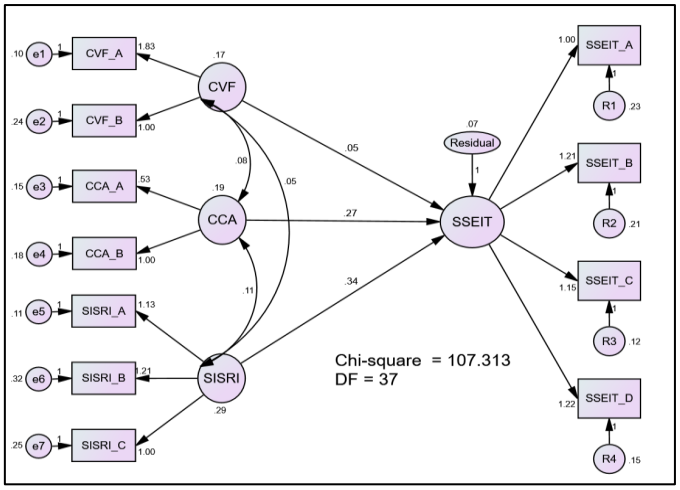

Figure 20: The results for High Personality

Figure 20 shows the effect of high personality on CVF, CCA and SISRI and its results are tabulated in Table 11.

Table 11 shows the regression path coefficient and its significance for high personality.

Table 11: The regression path coefficient and its significance for High Personality

			Estimate	S.E.	C.R.	P	Result
SSEIT	<---	CVF	0.049	0.065	0.753	0.452	Not Significant
SSEIT	<---	CCA	0.275	0.094	2.915	0.004	Significant
SSEIT	<---	SISRI	0.344	0.057	6.003	***	Significant

This study found that personality has a full moderating influence on the relationship between organizational culture and emotional intelligence. The estimated standardized regression coefficient for the low personality group data was 0.213, while the estimated standardized regression coefficient for the high personality group data was 0.049. The results showed that the type of moderator effect is a full moderator because the regression coefficient for the low personality group is significant, while the regression coefficient for the high personality group is not significant. Therefore it is noted that a lower personality will moderate the relationship between organisational culture and emotional intelligence. Personality was also found to have a partial moderating influence on the relationship between competence and cultural awareness with emotional intelligence. The estimated standardized regression coefficient for the low personality group data was 0.194, while the estimated standardized regression coefficient for the high personality group data was 0.275. The results showed that the type of moderator effect is a partial moderator since both regression coefficients are significant. Thus in this case, a higher personality will moderate the relationship between cultural awareness and emotional intelligence with a larger effect on emotional intelligence in this group of population. Personality was also found to have a partial moderating influence on the relationship between spiritual intelligence and emotional intelligence. The estimated standardized regression coefficient for the low personality group data was 0.403, while the estimated standardized regression coefficient for the high personality group data was 0.344. Therefore, this study concludes that the effect of spiritual intelligence on emotional intelligence is larger in the low personality group compared to the high personality group. The results showed that the type of moderator effect is a partial moderator since both regression coefficients are significant.

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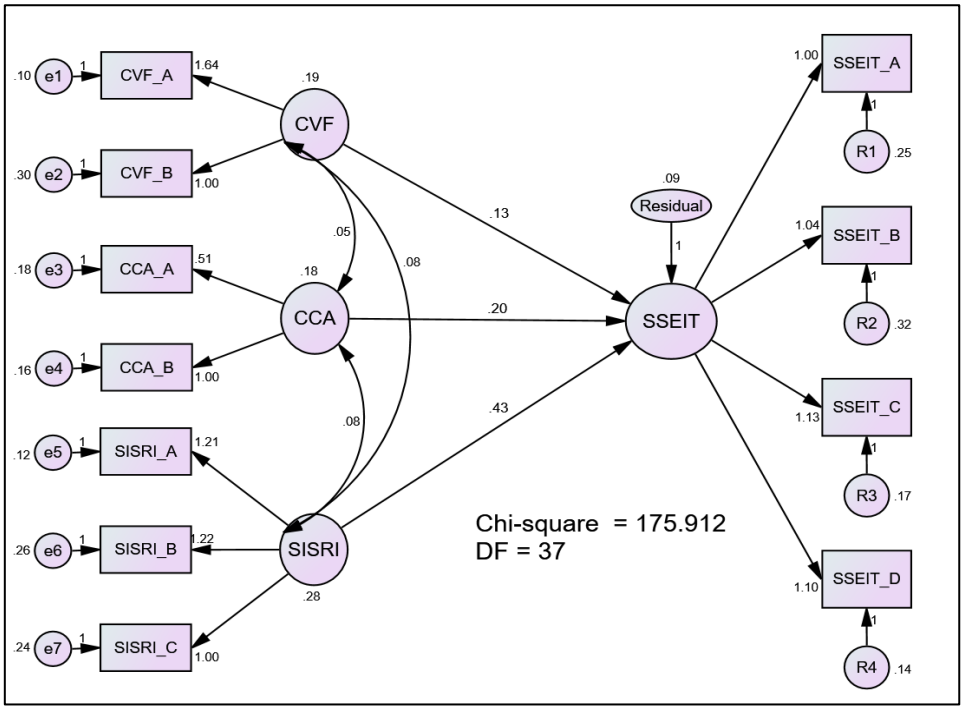

Figure 21: The results for Low Social Support

Figure 21 shows the effect of low social support on CVF, CCA, and SISRI and its results are tabulated in Table 12.

Table 12 shows the regression path coefficient and its significance for low social support.

Table 12: The regression path coefficient and its significance for Low Social Support.

			Estimate	S.E.	C.R.	P	Result
SSEIT	<---	CVF	0.127	0.053	2.410	0.016	Significant
SSEIT	<---	CCA	0.201	0.076	2.653	0.008	Significant
SSEIT	<---	SISRI	0.433	0.053	8.203	***	Significant

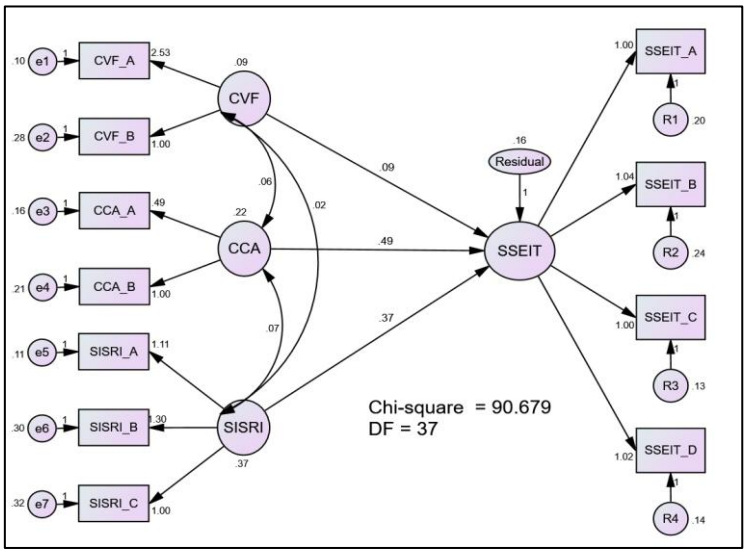

Figure 22: The results for High Social Support

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Figure 22 shows the effect of high social support on CVF, CCA, and SISRI and its results are tabulated in Table 13.

Table 13 shows the regression path coefficient and its significance for high social support.

Table 13: The regression path coefficient and its significance for High Social Support

			Estimate	S.E.	C.R.	P	Result
SSEIT	<---	CVF	0.089	0.142	0.632	0.527	Not Significant
SSEIT	<---	CCA	0.489	0.147	3.319	***	Significant
SSEIT	<---	SISRI	0.366	0.067	5.426	***	Significant

This study found that social support has a full moderating influence on the relationship between organizational culture and emotional intelligence. The estimated standardized regression coefficient for the low social support group data was 0.127, while the estimated standardized regression coefficient for the high social support group data was 0.089. The results showed that the type of moderator effect is a full moderator because the regression coefficient for the low social support group is significant, while the regression coefficient for the high social support group is not significant. Thus a lower social support moderates the relationship between organisational culture and emotional intelligence. Social support was also found to have a partial moderating influence on the relationship between competence and cultural awareness with emotional intelligence. The estimated standardized regression coefficient for the low social support group data was 0.201, while the estimated standardized regression coefficient for the high social support group data was 0.489. Therefore, this study concludes that the effect of competence and cultural awareness on emotional intelligence is larger in the high social support group than the low social support group. The results showed that the type of moderator effect is a partial moderator since both regression coefficients are significant. Social support was also found to have a partial moderating effect on the relationship between spiritual intelligence and emotional intelligence. The estimated standardized regression coefficient for the low social support group data was 0.433, while the estimated standardized regression coefficient for the high social support group data was 0.366. Therefore, this study concludes that the effect of spiritual intelligence on emotional intelligence is larger in the low social support group compared to the high social support group. The results showed that the type of moderator effect is a partial moderator since both regression coefficients are significant.

CONCLUSION

This study thus has been able to show that there is full moderating effect of personality on the relationship between organisational culture, cultural competence, cultural awareness and emotional intelligence and a partial moderating effect of personality on the relationship between spiritual intelligence and emotional intelligence. Social support was found to have a full moderating effect in the relationship between organisational culture and emotional intelligence, while social support found to have a partial moderating effect on the relationship between cultural competence, cultural awareness, spiritual intelligence, and emotional intelligence. The fact that there is a full moderating effect of personality on the relationship between organisational culture, cultural competence, cultural awareness and emotional intelligence makes it less useful concept to tackle in the efforts to improve emotional intelligence among doctors in Malaysia when thinking about these factors. However, spiritual intelligence will be a useful factor to look into as personality partially moderates its relationship with emotional intelligence. Organisational culture will not be a good factor to look into when dealing with doctors of various social support levels as it is found to be fully moderated in social support. However, cultural competence, cultural awareness, and spiritual intelligence will be good factors to look into to improve emotional intelligence among the doctors.

Spiritual intelligence was found to be significantly related to emotional intelligence, and mean scores for most items in the SISRI were moderate. Therefore, this aspect can be further improved. Various efforts have been made where the Ministry of Health places an Islamic Affairs Officer at the Ministry of Health facility. There is a need to intensify this unit further to achieve spiritual well-being among Muslim doctors. Whereas, for those who have a religion other than Islam, there is a need to create at least a place of worship as practiced in developed countries such as the United Kingdom.

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Organizational culture and competence and cultural awareness are also seen to have a significant relationship with emotional intelligence. Although the mean score of organizational culture and cultural competence and awareness is clearly high, the Ministry of Health can still intensify efforts to foster a healthy organizational culture and ensure that doctors are instilled with competence and cultural awareness drivers.

This study can be used as a novel study that investigates emotional intelligence among doctors in government hospitals in Malaysia. Following from this study, there is a need to conduct further research to explore interventions that are suitable to be carried out in MOH facilities to foster emotional intelligence among MOH doctors. There are managerial implications to be taken at MOH facilities where the application of healthy organizational cultural values, high spiritual intelligence, and high awareness and cultural competence can be practiced considering that these factors are found to affect the emotional intelligence of MOH doctors. It is also a fact that high emotional intelligence promotes well-being in general, and is a predictor of good work performance, reduces burnout among individuals, and promotes job satisfaction.

Full moderating effect of social support on the relationship between organisational culture and emotional intelligence means that a when a trainer wants to change the organisational culture to have an effect on emotional intelligence, he has to take into account the social support of the employee. As such, the partial moderating effect of social support on relationship between cultural competence, cultural awareness, spiritual intelligence and emotional intelligence makes it a useful modifying factor to be taken into account in order to improve on emotional intelligence of an employee or clinician in the hospital.

Full moderating effect of personality and social support on the relationships as stipulated above actually means that personality and social support are mandatory to be looked into for it to have any meaningful relationships between organisational culture, cultural competence, cultural awareness, and emotional intelligence. It moderates the relationships between these three modifying factors and emotional intelligence. Hence in practice, to improve a clinician's emotional intelligence, the administrators or trainers will have to look into the effect of higher personality on the relationship between organisational culture, cultural competence, cultural awareness, and emotional intelligence, whereas personality partially moderates, in the sense will have an effect on the relationship between spiritual intelligence and emotional intelligence regardless of what type of personality a clinician has.

Future studies can concentrate on the interventions utilised in the clinical settings to increase both clinicians' emotional intelligence by focusing on the personality, social support, together with organisational culture improvements, fostering better cultural competence and cultural awareness, and improving the spiritual intelligence among the employees.

LIMITATIONS

The study did not investigate the relationship between emotional intelligence and stress, job satisfaction, or work performance. The relationship between emotional intelligence and the above factors are well delineated in literature review and are known factors to be influenced by emotional intelligence.

In addition, this study also did not explore interventions that are suitable to be carried out in MOH facilities. This is because this study is a new study to determine emotional intelligence among doctors at MOH facilities involving five MOH facilities from all over Malaysia. In addition, the limitation in the discussed discussion is when the literature that connects the moderator with the independent variable is limited or absent. Therefore, the discussion made is also limited.

List of Abbreviations

IQ- Intelligent Quotient
CVF - Competing Values Framework
CCA - Cultural Competence Assessment
SISRI - The Spiritual Intelligence Self Report Inventory
SSEIT - Schutte Self-Report Emotional Intelligence Test

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ISEL-12 - Interpersonal Social Support -12
TIPI - Ten-Item Personality Index
RMSEA - Root Mean Square Error of Approximation
GFI - Goodness of Fit Index
AGFI - Adjusted Goodness of Fit Index
CFI - Comparative Fit Index
TLI -Tucker-Lewis Index
NFI - Normed Fit Index

Declarations

Ethics approval and consent to participate

This study has received the ethics approval from Medical Research and Ethics Committee (MREC), Ministry of Health, Malaysia with the reference number 22-01645-FJL (2) and Research and Ethics Committee (REC) from National University of Malaysia with the reference number UKM PPI/111/8/JEP-2022-440. Informed consent has been obtained from all participants in this study. All methods used in this study were performed in accordance with the relevant guidelines and regulations as laid out by the MREC and REC.

Consent for publication

Not applicable

Availability of data and materials

Data and materials are available with the investigators of this study, and protected with password.

Competing interests

There are no competing interests.

Funding

There is no funding involved in this study.

Authors' contributions

Neong writes the manuscript, Md Isa, Abdul Manaf, and N. Anwar are the supervisors, Awang is involved in analysis. Neong, Hassan, Mohamad, Md Zain, Ja'afar, Abdullah, and Che Arifin are the investigators.

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