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Are school leaders culturally intelligent? Validation of the cultural intelligence (CQ) scale in the UAE

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Abstract

Purpose

This paper reports results of testing and validation of the Cultural Intelligence (CQ) Scale in a new location, the culturally diverse United Arab Emirates (UAE), and in a new sector: public and private school leaders.

Design/methodology/approach

This study surveys 167 school leaders from public and private schools in the UAE using the 20-item version of the CQ Scale, which employs a seven-point Likert response scale of strongly agree to strongly disagree. An examination of the dimensionality of the 20-items was conducted using both principal components analysis and confirmatory factor analysis. Demographics were also gathered.

Findings

Results from testing and validation of the scale indicated a high level of CQ among school leaders in the Emirate of Abu Dhabi. An examination of the dimensionality of the 20-items showed them to fall into the same structure of four sub-components as conceptually conceived: knowledge, strategy, motivation and behaviour. The mean scores for the four components of CQ in this study indicate high cultural intelligence amongst Abu Dhabi school leaders, although the knowledge dimension measured slightly lower. The results confirm previous research that found CQ to be higher in culturally diverse settings, which, according to socio-demographic details gathered in the study applies to the United Arab Emirates.

Originality

This is the first known study to test the Cultural Intelligence Scale in UAE schools. It answers the call from the CQ Scale developers to validate the scale in diverse contexts.

Keywords: Cultural Intelligence, School Leaders, Leadership, Diversity, UAE

1 Introduction

1.1 The concept of Cultural Intelligence (CQ)

One of the effects of globalisation is greater diversity in the workforce (Ang, Van Dyne, and Koh, 2006), a change which brings challenges for leaders of organisations such as schools in countries such as the UAE. Globalisation is a complex issue with social, political, and economic implications that reach beyond individual countries and societies. It has prompted the need for leaders to possess skills to enable them to manage in culturally diverse settings, acknowledging that the cultural composition of workplaces can impact their effectiveness (Ng *et al.*, 2012).

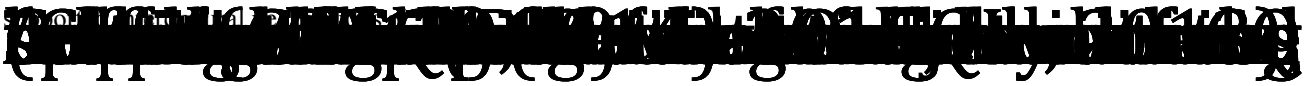
Cultural intelligence (CQ) is a construct which is "motivated by the practicality of globalisation in the workplace" and can be described as an individual's capacity to operate and manage in multicultural environments (Ang & Van Dyne, 2015). Leaders who are culturally intelligent will exhibit a range of behaviours that allow them to adjust to a multi-cultural environment (Ibid.; Presbitero and Toledano, 2018; Henderson *et al*., 2018). Gelfand *et al*., (2008, p. 497) found CQ to be an "important individual characteristic that facilitates cultural adaptation and performance" in the workplace. Similarly, Leung *et al*. (2014, p. 495) identified the value of CQ in the workplace as having "provided the most promising evidence to predict a range of psychological, behavioural, and performance outcomes."

CQ was introduced in 2003 and is based on a multidimensional framework of intelligence (Earley & Ang, 2003) building on the idea of "multiple intelligences" developed by Gardner (1983). It is defined as "an individual's capability to function and manage effectively in culturally diverse settings…. a multidimensional construct targeted at situations involving cross cultural interactions arising from differences in race, ethnicity and nationality" (Ibid., p. 101). CQ has also been defined as "a capability, which increases the manager's ability to effectively interact with people belonging to other cultures" (Jyoti and Kour, 2017, p. 306).

1.2 Development and use of a CQ scale

Ang *et al*. (2007) developed the first instrument to measure cultural intelligence, "The Cultural Intelligence Scale (CQS)". This scale was developed to facilitate the validation of Earley and Ang's (2003) conceptualisation of CQ. The CQS, "measures the multi-faceted characteristic of individuals' cultural intelligence by assessing their intelligence through meta-cognitive, cognitive, behavioural, and motivational facets" (Ang *et al*., 2007, p. 362). The instrument has been through an extensive validation process, and research has demonstrated that it is generalisable (Van Dyne *et al*., 2012). The CQS consists of twenty questions, each of which measures one of the CQ factors.

Research to date using CQS has been both strong and encouraging (Kang *et al*., 2019; Townsend *et al*., 2015; Collins *et al*., 2016, Schlaegel & Sarstedt, 2016). A recent meta-analysis (Rockstuhl and Van Dyne, 2018) highlighted the predictive power of CQ and demonstrated the incremental validity and the value of the four factors, above and beyond latent CQ. A number of empirical studies have examined CQ in both international and intercultural settings. They have found that CQ can be used to an individual's benefit when working in international and intercultural contexts. For example, Mor *et al*. (2013) found CQ encouraged intercultural cooperation, and Groves *et al*. (2015) and Imai and Gelfund (2010) found it



1.3 Gap in knowledge

The previous sections have identified the conceptual basis for CQ, and the development and empirical use of a quantitative scale to measure an individual's CQ. However, use of the scale has not been exhaustive. In this paper, reported are the results of testing and validation of the CQS in a new location – the culturally diverse UAE - and in a new sector - with school leaders from both public and private schools. This research will answer the call by Van Dyne *et al*. (2010), for further testing and validation of the CQ scale in both a new location and a new sector. It will enable a CQ baseline to be developed for educational leaders in the UAE that can be used for all future research, and that can be used to assess training and development needs for future leaders. In such a culturally diverse setting, leaders with higher levels of cultural intelligence may be better placed to deal with the challenges they face in their schools. The aim of this paper is to provide a baseline for CQ of school leaders in the UAE.

Previous studies have investigated leadership across several cultures, in both national and international schools (Day and Leithwood, 2007; Walker & Cheong, 2009; Leithwood & Jantzi, 2005; Leithwood *et al*., 1996; Bunnel, 2008; Normore and Collard, 2007; Benham and Murakami-Ramalho, 2010; Walker & Shuangye 2007). Some of these leadership studies have focussed on school leaders in the UAE (Aldhaheri, 2017; Litz, 2014; Ibrahim and Al Al-Taneiji, 2012) or on CQ but in another country, but there exists no previous studies that specifically investigate the CQ of school leaders in the UAE. In two CQ meta-analysis studies (Ott and Michailova, 2018; Schlaegel *et al*., 2017), no references were made to CQ being used in the UAE or with school leaders. Of most relevance is a study by Keung and Rockinson-Szapkiw (2013) that investigated CQ and school leaders, specifically English-speaking school leaders in American sponsored International schools in 90 countries around the world. Their study therefore differs significantly from the current study that focusses on school leaders working in a single multicultural country from broad and varied cultural backgrounds.

Related studies have sought to understand the ability of school teachers to teach in culturally diverse settings (Gay, 2018; Siwatu et al, 2007). *Culturally responsive teaching* is different from CQ as it focusses on specific classroom practices such as pedagogical skills, and feelings of self-efficacy by teachers, whereas CQ takes a more abstracted view and is not tailored to teaching. Where they overlap however, is in both recognising the importance of cultural knowledge of the practitioner when working in culturally diverse settings (Gay, 2002)

1.4 Research context

1.4.1 Characteristics of the UAE

Cultural diversity is very much reflected in the make-up of the UAE education system and its schools; both staff and pupils alike represent numerous countries and cultures from across the world. The United Arab Emirates (UAE) is a constitutional federation of seven emirates, with a population of ~10 million. Almost 90% of the population are classified as expatriates, with over 200 nationalities represented. Until 1971, the UAE was a British colony, and before that was a Portuguese territory. This cultural diversity is in part due to its colonial history, but also its geographical position in Western Asia, making it close to both Africa and Europe, and in close proximity to busy worldwide shipping and trade routes. Exploitation of the UAE's significant oil and gas reserves has fuelled rapid economic growth and migration since the mid to late 20th Century, and seen Dubai emerge as a major international hub.

1.4.2 Characteristics of the UAE education system

The UAE education sector is relatively young when compared with other systems. In less than 50 years, a public national education system has been developed, and is similar to those developed by western governments over the course of over 100 years (Kirk, 2010). The exponential growth in population in the country, driven by immigration has led to the adoption of several foreign models and curricula, meeting the demand for capacity quickly (Kirk, 2010). However, while this has helped in the short term, the UAE education system is now undergoing reform with the ultimate aim of creating an indigenous education model that is more tailored to the diverse needs of the country.

The demographic characteristics of staff and students vary greatly between both private and public sectors. Education is a free public service for all nationals from primary through to tertiary levels in the UAE. The public education sector is used primarily by nationals, yet many of the staff are expatriate. The private school system in the UAE is predominantly aimed at expatriate students and staff, although many UAE nationals are beginning to attend as they perceive them to be higher quality.

2 Methodology

The CQS (Table 1) was tested with school leaders in the Emirate of Abu Dhabi. The respondents used a seven-point (1-7) Likert response scale, with 1 indicating 'strongly disagree', 7 indicating 'strongly agree', and 4 indicating 'neither agree nor disagree'.

Table 1: The 20 items CQS as used in the study (Earley and Ang, 2003)

The researcher obtained contact details of school leaders from the local regulatory body, the Abu Dhabi Department of Education and Knowledge (ADEK). The list included all 443 schools in Abu Dhabi, 257 of which were public schools and 186 of which were private schools. Questionnaires were emailed to one school leader per school. To allay any fears pertaining to confidentiality, the questionnaires were accompanied with an email covering contextual information and offering an explanation of the aims of the study. Each questionnaire was accompanied by a letter of endorsement from ADEK. Respondents provided their informed consent through their participation.

A record was kept by the researcher in order to monitor receipt of responses and to identify non-respondents. Reminder emails were sent to non-respondents. Respondents were free to choose whether to respond or not. No incentives were offered to encourage participation. No alternative methods were used to collect data from non-respondents. In all, 167 responses were received, resulting in a response rate of 37.7%.

3 Results

The response rate across the 20 variables was very high. For most of the variables, the responses were skewed towards 'strongly agree'. Descriptive statistics are shown in Table 2. Across the 20 variables, the mean scores range from 4.36 to 6.24, further indicating a skewed set of responses, and a high level of cultural intelligence amongst school leaders in Abu Dhabi. For the 'knowledge' variables, standard deviations are, on the whole, higher than they are for the other three facets of cultural intelligence.

Table 2: Descriptive Statistics for the Cultural Intelligence Scale

3.1 Dimension reduction

Although the dimensionality of the CQS is known from previous research (Ang, Van Dyne & Koh, 2006), to test the validity of the methodology applied in this study and to further test the dimensions of the scale, dimension reduction techniques are applied to the dataset. Dimension reduction techniques identify coherent subsets of variables that are independent of one another (Tabachnick and Fidell, 2014). For a robust exploration of the scale, given that it is being used in a new location and in a new sector, both Principal Components Analysis (PCA) and Confirmatory Factor Analysis (CFA) are used in this study. PCA provides a simple empirical summary of the data set, extracting maximum variance from the data set with each component (Tabachnick and Fidell, 2014). CFA was used by Ang, Van Dyne and Koh (2006) and so is used here to allow for comparisons to be made.

3.1.1 Principal components analysis

The oblique rotation method was chosen, as it allows for the components to be correlated with one another, whereas the alternative, orthogonal rotation, does not (Field, 2013). Both the 'direct oblimin' and 'promax' methods for oblique rotation were tested, although results are shown only for the direct oblimin method (the results from promax rotation were almost identical). The Kaiser-Meyer-Olkin measure of sampling adequacy was .90, exceeding the accepted standard for good (.6). Bartlett's test of sphericity is significant ($p<.01$) thus rejecting the null hypothesis that the variables in the correlation matrix are uncorrelated.

Components with an eigenvalue above 1 were retained, following Kaiser's criterion. The scree plot identified the point of inflexion after four components. The four components each had an eigenvalue greater than 1 and between them explain 77.2% of the variance. The fifth component had an eigenvalue of 0.657 and explained only an additional 3.28% of the variance. The component loadings from the pattern matrices are shown in Table 3. The highest factor loading for each variable is shown in ***italic*** font.

Table 3: Pattern matrix for the CQS using direct oblimin rotation

The pattern matrix reveals that all 20 variables load highest on those components for which they are intended to measure. Additionally, there are no variables with complex loadings; all other loadings are sufficiently small to be ignored.

3.1.2 Confirmatory factor analysis

A four-factor model, following the structure identified by Ang, Van Dyne and Koh (2006) was created and tested. The path diagram is shown in Figure 1 and includes residual errors and correlation between factors. The maximum likelihood method was used; means and intercepts were estimated for missing data.

Figure 1: Path diagram for four factor Cultural Intelligence Scale

There are a number of outputs from the CFA to determine whether the four-factor model is satisfactory. Firstly, the result of the Chi square test ($\chi 2$), testing whether the observed covariance matrix is different from the expected covariance matrix, with a small difference represented by a small and non-significant value of $\chi 2$ and indicating that the observed matrix is a good 'fit' to the expected matrix. For the four-factor model, $\chi 2 = 354$ (*df* 164, N=167), with a non-significant *p*-value (p=>.05). This is almost identical to the value reported in Ang, Van Dyne and Koh (2006): $\chi 2 = 369.91$ (*df* 164, N=465). The significance value, however, was not reported by Ang, Van Dyne and Koh (2006).

The comparative fit index (CFI) is a similar measure of fit, but controls for issues of sample size, with results between 0-1. Higher scores indicate a greater fit, scores above 0.9 are deemed acceptable. For the four-factor model in this study, the CFI is acceptable at .933 but slightly lower than that reported by Ang, Van Dyne and Koh (2006), who reported a CFI of .97.

A further measure, 'non-normed fit index' (or Tucker Lewis index - TLI) evaluates the discrepancy between the value of chi-squared for the hypothesized model and the value of chi-squared for the null model. Scores are between 0-1, with scores indicating a good fit above .95 and acceptable between .90 and .95. The TLI score for the four-factor model is .914, lower than that reported by Ang, Van Dyne and Koh (2006), at TLI = .96, but meeting the standard to be considered acceptable.

The final measure of fit is the 'root mean square error of approximation' (RMSEA), which evaluates the difference between the hypothesised model, with optimally chosen estimates for each parameter, and the population covariance matrix. Scores are again between 0-1, with scores of zero indicating exact fit, <.05 = good fit, .05 to .08 = fair fit, .08 to .1 = mediocre fit, and >.1 = poor fit. The RMSEA for the four-factor model is .084, indicating a mediocre fit; Ang, Van Dyne and Koh (2006) report a RMSEA of .053.

In addition to indices evaluating the fit of the whole model, the relationship for each of the 20 variables to the model is evaluated. Standardised regression weights for each variable are shown in Table 4 (these are equivalent and comparable to the loadings seen in the matrix for the PCA).

The factor loadings are, on the whole, good, providing further validation of the good results from the CFA. Five are .9 or above, 10 are between .8 and .9, three are between .7 and .8 with just two less than .7, both of which are in the 'knowledge' factor. Ang, Van Dyne and Koh (2006) do not report standardised regression weights to allow for comparisons.

Table 4: Standardised Regression Weights for Cultural Intelligence Confirmatory Factor Analysis model

3.2 Dimensions reliability

Four dimensions were identified during the dimension reduction tests, with the variables falling into the same structure as proposed by Ang, Van Dyne and Koh, (2006). To further test the resulting dimensions, tests of reliability were used to assess consistency of participants' responses, using Cronbach's alpha, α. Scores for all four of the dimensions are high (Strategy .943, Knowledge .891, Motivation .906, Behaviour .934) and are therefore considered excellent (George and Mallery, 2003). These scores provide further justification for the variables being reduced to the dimensions identified by PCA, CFA and previous research.

3.3 Four dimensions – descriptive statistics

The justification for treating the variables as four dimensions has been made in the previous two sections. Descriptive statistics (Table 5) are shown for the resulting four dimensions.

Table 5: Descriptive statistics for four resulting components

Across the four dimensions, mean scores are high (4.75 to 5.96), indicating that the sample has high cultural intelligence. Standard deviation scores are narrow, and skewness and kurtosis scores for the strategy, motivation and behaviour dimensions are large, indicating a skewed distribution, with most of the data in the 'strongly agree' tail. This provides further evidence that the sample has high cultural intelligence characteristics.

3.4 Comparison with normative datasets

School leaders in UAE have been shown to have high levels of CQ. To understand further the extent to which these scores are 'high', comparisons are made to normative datasets. A one-sample t-test is used to compare the mean score for the variables (for all participants separated into the four dimensions of CQ) with the normative datasets published in Ang, Van Dyne and Koh (2006) and Van Dyne, Ang and Koh (2008), and to determine the significance of the resulting value of *t*. In the normative dataset published by Van Dyne, Ang and Koh (2008), scores from six studies are published.

For all 28 comparisons between the scores found in this study and the scores published in Ang, Van Dyne and Koh (2006) and Van Dyne, Ang and Koh (2008), the values of *t* are found to be significant (df=166; N=167, $p<.001$). In all cases, the scores published by Ang, Van Dyne and Koh (2006) and Van Dyne, Ang and Koh (2008) are lower than those presented in this study, indicating that the sample of school leaders in UAE has significantly high levels of cultural intelligence.

4 Discussion

4.1 Arising contributions to the development of CQ and CQS

The CQS scale was successfully implemented, providing contributions to CQ theory development, from a full testing of the CQS, in a new geographical setting, and with school leaders. The successful implementation of the scale can give confidence to researchers investigating CQ in other Middle Eastern nations and also to researchers looking to use the scale in another new region where it has not been used previously. Ang, Van Dyne and Koh (2006) have called for further validation of the CQS scale in different regions and contexts and so this research answers this call and adds to the body of knowledge on the subject.

Successful implementation included multiple analyses of the dimensionality of the CQ scale, all of which found results confirming the intended structure as developed by Ang, Van Dyne and Koh (Ibid.). Dimension reduction techniques provided excellent results allowing for the variables to be analysed using the four-dimension model identified by Ang, Van Dyne and Koh (Ibid.). Reliability scores for the dimensions were either 'good' or 'excellent'. The results of these analyses have proved conclusive and have partially validated the methodology used in this study.

4.2 CQ of school leaders in UAE

Without prior research in this area, it was unknown whether school leaders in the Emirate of Abu Dhabi would have high, low, or intermediate levels of CQ. Previous research (see 1.2) identified that CQ is higher in culturally diverse settings; with the UAE population being almost 90% expatriate it was therefore likely that many of the school leaders in the UAE will have experienced high levels of cultural exposure, leading to high levels of CQ. However, no prior research of CQ had been carried out in the UAE among school leaders, and therefore this was not known.

The mean scores for the four components of CQ in this study ranged from 4.75 to 5.96, thus are towards the 'strongly agree' end of the 1 to 7 scale and therefore indicate 'high' cultural intelligence. The 'knowledge' dimension had the smallest mean score at 4.75, with mean scores for 'strategy' (5.96), 'motivation' (5.93) and 'behaviour' (5.89) being higher and very similar to each other.

The mean scores reported in this study are consistently higher than those reported by Ang, Van Dyne and Koh (2006) and Van Dyne, Ang and Koh (2008). A one-sample *t*-test was used to compare the mean score for each of the four components of cultural intelligence with these normative datasets containing results from seven studies. The resulting 28 values of *t* were all deemed to be significant at the 1% level ($p<.01$). The levels of CQ are therefore significantly higher than the mean scores reported in normative datasets by Ang, Van Dyne and Koh (2006) and Van Dyne, Ang and Koh (2008) during development of the CQS. This is somewhat anticipated, and an explanation might be the fact that the UAE is a highly diverse and multicultural environment.

The scores for CQ presented in this study can be used as a normative dataset for use for comparisons with other CQ studies, in UAE, with school leaders, or in meta-analyses (such as those by Ott and Michailova, 2016; Richter *et al*., 2017; Solomon and Steyn, 2017). The school leaders in Abu Dhabi scored slightly lower for the Knowledge component, potentially impacting their ability to handle multicultural situations effectively. The Knowledge component relates to a person's understanding of culture, and the cultural differences which exist between social groups, and consists of both visible and

invisible components. For an individual working in a multicultural environment, it is the invisible cultural differences that can be problematic, as they are 'hidden' and this is where tensions and misunderstandings can occur and are more likely. It is perhaps this 'hidden' component of knowledge that respondents are aware that they are lacking knowledge of, and future research could address this uncertainty. Further, this result creates a case for school leaders to have formal training that provides them with information and knowledge relating to the core cultural values of other groups. Formal CQ training would facilitate this.

4.3 Limitations

It is acknowledged that the implications of this study are limited because of the solely quantitative methodology adopted. Future studies should seek to complement the quantitative methodology employed in this study with qualitative methods, to gain a deeper understanding of the cultural intelligence of the school leaders of UAE. Further, this study adopts the epistemological perspective that constructs such as cultural intelligence can be 'measured' through a questionnaire, and that respondents are able to respond appropriately with comprehension of the questionnaire terms. To limit this effect, this study has replicated previous studies that have used the CQ scale and has used the CQ scale exactly as designed and intended.

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Table 1: The 20 items CQS as used in the study (Earley and Ang, 2003)

CQ-Strategy	MC 1	I am conscious of the cultural knowledge I use when interacting with people with different cultural backgrounds.
	MC 2	I adjust my cultural knowledge as I interact with people from a culture that is unfamiliar to me.
	MC 3	I am conscious of the cultural knowledge I apply to cross-cultural interactions.
	MC 4	I check the accuracy of my cultural knowledge as I interact with people from different cultures.
CQ-Knowledge	COG 1	I know the legal and economic systems of other cultures.
	COG 2	I know the rules (e.g., vocabulary, grammar) of other languages.
	COG 3	I know the cultural values and religious beliefs of other cultures.
	COG 4	I know the marriage systems of other cultures.
	COG 5	I know the arts and crafts of other cultures.
	COG 6	I know the rules for expressing non-verbal behaviours in other cultures.
CQ-Motivation	MOT 1	I enjoy interacting with people from different cultures.
	MOT 2	I am confident that I can socialize with locals in a culture that is unfamiliar to me
	MOT 3	I am sure I can deal with the stresses of adjusting to a culture that is new to me.
	MOT 4	I enjoy living in cultures that are unfamiliar to me.
	MOT 5	I am confident that I can get used to the shopping conditions in a different culture
CQ-Behaviour	BEH 1	I change my verbal behaviour (e.g., accent, tone) when a cross-cultural interaction requires it.
	BEH 2	I use pause and silence differently to suit different cross-cultural situations.
	BEH 3	I vary the rate of my speaking when a cross-cultural situation requires it.
	BEH 4	I change my non-verbal behaviour when a cross-cultural situation requires it.
	BEH 5	I alter my facial expressions when a cross-cultural interaction requires it.

Table 2: Descriptive Statistics for the Cultural Intelligence Scale

Item	N	Mean	Standard Deviation	Skewness	Kurtosis
All 20 items	167	5.59	0.829	-1.531	5.484
MC 1	167	6.14	1.081	-2.018	6.056
MC 2	167	5.89	1.13	-1.711	4.387
MC 3	167	5.9	1.056	-1.749	5.378
MC 4	167	5.95	1.066	-1.796	5.318
COG 1	167	4.84	1.326	-0.4	0.027
COG 2	167	4.36	1.541	-0.221	-0.601
COG 3	165	5.28	1.234	-0.618	0.042
COG 4	167	4.67	1.566	-0.459	-0.529
COG 5	163	4.64	1.452	-0.437	-0.45
COG 6	166	4.72	1.426	-0.668	-0.018
MOT 1	166	6.24	1.04	-2.168	6.972
MOT 2	165	6.1	1.043	-2.089	6.981
MOT 3	164	6.04	1.044	-1.971	6.519
MOT 4	166	5.63	1.336	-1.183	1.675
MOT 5	164	5.87	1.154	-1.262	2.174
BEH 1	167	5.89	1.237	-1.841	4.155
BEH 2	167	5.89	1.148	-1.974	5.459
BEH 3	167	6.02	1.124	-1.951	5.433
BEH 4	167	5.83	1.32	-1.738	3.577
BEH 5	166	5.83	1.268	-1.682	3.489

Table 3: Pattern matrix for the CQS using direct oblimin rotation

Pattern Matrix				
Component	1	2	3	4
MC1	-0.017	0.002	*-0.919*	-0.034
MC2	0.025	-0.033	*-0.929*	0.074
MC3	0.021	0.031	*-0.908*	-0.017
MC4	0.002	0.063	*-0.894*	-0.022
COG1	0.023	*0.764*	-0.069	0.099
COG2	0.266	*0.777*	0.033	0.314
COG3	-0.001	*0.681*	-0.222	-0.102
COG4	-0.046	*0.837*	0.07	-0.164
COG5	-0.117	*0.774*	-0.013	-0.292
COG6	-0.099	*0.797*	-0.072	-0.171
MOT1	0.205	0.018	-0.246	*-0.573*
MOT2	0.122	0.026	-0.225	*-0.69*
MOT3	0.225	0.005	-0.137	*-0.73*
MOT4	0.121	0.014	0.061	*-0.836*
MOT5	0.036	0.206	0.007	*-0.766*
BEH1	*0.894*	-0.018	-0.004	-0.019
BEH2	*0.796*	0.072	-0.079	-0.074
BEH3	*0.715*	-0.048	-0.095	-0.226
BEH4	*0.887*	-0.007	0.003	-0.065
BEH5	*0.914*	0	0.022	0.015

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Rotation converged in 8 iterations.

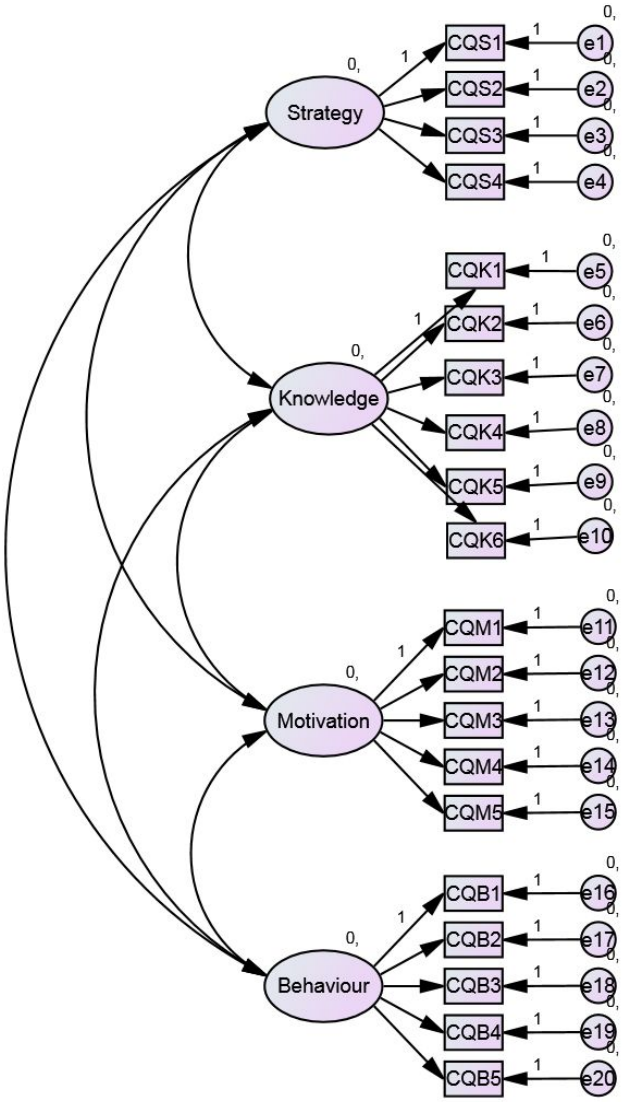

Figure 1: Path diagram for four factor Cultural Intelligence Scale

Table 4: Standardised Regression Weights for Cultural Intelligence Confirmatory Factor Analysis model

Factor	Variable	Estimate
Strategy	MC1	0.89
	MC2	0.831
	MC3	0.94
	MC4	0.928
Knowledge	COG1	0.659
	COG2	0.592
	COG3	0.773
	COG4	0.827
	COG5	0.861
	COG6	0.855
Motivation	MOT1	0.831
	MOT2	0.911
	MOT3	0.94
	MOT4	0.733
	MOT5	0.787
Behaviour	BEH1	0.865
	BEH2	0.851
	BEH3	0.833
	BEH4	0.9
	BEH5	0.86

Table 5: Descriptive statistics for four resulting components

Dimension	No. of Items	N	Mean	Std. Error of Mean	Standard Deviation	Variance	Skewness	Kurtosis
Strategy	4	167	5.96	0.0774	1.000	1.002	-2.156	7.572
Knowledge	6	167	4.75	0.0891	1.152	1.329	-0.359	0.056
Motivation	5	167	5.93	0.0843	1.090	1.189	-2.402	9.158
Behaviour	5	167	5.89	0.0841	1.087	1.183	-1.843	5.036