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Model of Quality Management, Emotional Intelligence, and Leadership Competency of Principal

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***Abstract*—** An excellent educational institution is generally led by effective leaders. Thus, this study aims to explore emotional intelligence, quality management, and leadership competence among secondary school principals. The researcher used two software to analyze the study data, namely IBM SPSS Statistics 23 and SMARTPLS 3 (Partial Least Squares). The number of respondents in this study was 152 as outliers were identified as less than 5 percent. The sample determination in this study was using a simple random sampling technique. The findings of this study showed that there was no association between emotional intelligence and competence ($b = 0.092$, $t = 1.221$, $p > 0.05$); there was a significant positive relationship between emotional intelligence and quality of management ($b = 0.502$, $t = 7.087$, $p < 0.05$) and there was a significant positive relationship between quality management and competence ($b = 0.632$, $t = 7.506$, $p < 0.05$). The results of the analysis also indicate that quality management has a low positive relationship with competence. Finally, the result represented that emotional intelligence and quality management significantly affect leadership competence. Thus, it can be concluded that emotional intelligence and quality management have a significant effect on the leadership competence of secondary school principals.

***Keywords*—** Emotional Intelligence, Quality Management, Competence, Leadership, SMARTPLS.

I. INTRODUCTION

Principals who can practice effective leadership can produce and create an effective school climate. An excellent and effective school will be born through the leadership of an excellent principal. The leadership of an effective principal will boost the institution involved into an excellent institution. An effective institution will produce a quality generation. Therefore, it is necessary to study and identify the characteristics of effective leadership that should be possessed and practiced by leaders to guarantee the excellence of the educational institutions they lead.

The principal's task is to create an atmosphere that can cause or produce changes in behavior (Atan Long, 1991). Principals are employees in a large and complex organization. Teaching and learning in the era of globalization is quite a tiring experience. The competition and challenges of this kind of work environment may have negative effects on principals and students. This can cause an emotional outburst between both parties, this scenario can affect the principal's image if it happens. Skovholt and D'Rozario's (2000) study shows that students consider empathetic and sociable principals to be excellent principals.

This finding reinforces the results of Grasha's (1996) study which found that excellent principals are principals who are empathetic and attentive to the needs of students.

Emotional intelligence is also called EQ or emotional intelligence. A person who has emotional intelligence easily gets along with others with empathy and feelings of love, has high social skills, and uses emotional awareness to control behavior. expertise that includes aspects of knowledge, skills, and also attributes. It exists in a person when awareness arises in oneself and then tries to improve the deficiency with quality training and gaining knowledge. Quality management is an approach that can control something complex.

The universal, productive, and dynamic nature makes quality management one of the best approaches to developing and improving leadership competencies. In addition, quality management also has the advantage of ensuring a truly quality output to develop a series of complete competencies and abilities covering all three aspects of knowledge, skills, and attributes.

This study helps leaders to know more deeply the characteristics of leadership that they have practiced. Next, the results of information related to effective leadership characteristics will help leaders improve their respective leadership styles.

This study can also contribute information related to effective leadership models in schools to help the education department create an effective school leadership model in particular.

Therefore, it is very necessary and important for researchers to study how to form an effective leadership model design in schools to be the basis and guide for leaders in shaping the institution to become an effective institution. As stated in the National Education Philosophy (FPK) and the Malaysian Education Development Plan 2013-2025, one of the most important components of forming quality leaders is the leadership of the leader or teacher himself. Concerning that, this study is expected to be used by school principals to shape leaders into effective leaders as well as boost the educational institutions involved into excellent educational institutions.

II. PROBLEM STATEMENT

In this study, emotional intelligence is linked to principal leadership issues. At the same time, there are many opinions that state that the success of a school has a relationship with the leadership of its principal (Ishak Din, 2002; Abbas Awang & Balasandran, 2002). Nevertheless, the extent to which school leaders appreciate the quality of leadership to improve the excellence of each school has leadership qualities, being influential, willing to sacrifice for the benefit of the organization, creative in leadership, innovative, and skilled in communication is an important feature in generating school excellence (Aminah Ayob, 2004).

However, the weakness of the principal's leadership can hinder the principal's leadership and school management to function more effectively (Abdul Syukor, 2004). According to Abdul Syukor (2004), the level of education management in this country has not yet reached a professional level, so quality management that can usually realize educational improvement programs is difficult to achieve. The reality that occurs today, since most teachers who are appointed as principals only receive basic training in the field of teacher education, to carry out their duties as principals depend on their work experience, peer guidance, and advice, or through administrative and specialist circulars provided by the Malaysian Ministry of Education.

Quah Cheng Sim and Wan Azmiza (2012) conducted a study on the leadership behavior of school principals and found that there are still principals who find it difficult to influence staff and control behavior in the organization as well as lack leadership skills and are unable to comply with policies or policies. Principals also lack skills in financial management and have problems in physical management involving geography and location. In addition, the principal is also unable to manage staffing effectively and does not establish cooperation with external parties; not getting cooperation from students' parents, especially in the implementation of safety measures at school and their involvement in school activities.

Various studies have been done, but no study emphasizes the role and influence of the leader's emotions on the leadership competence of school principals using a quality management approach. The function of the quality approach is effective in continuously improving the organizational system with the advantages of being productive, universal, and dynamic. Therefore, further research in this field should be done to increase understanding of the role of emotional intelligence and its impact on the formation of principals' leadership competencies.

III. PURPOSE OF THE STUDY

The purpose of this study is to identify the appropriateness of the model to the study population among principals in secondary schools. Overall, this study identified the appropriateness of the emotional intelligence-competency model formed from the emotional intelligence (EQ) of secondary school principals based on the five domains of Emotional Intelligence presented by Goleman (1995), and two additional domains based on the study of Noriah et al (2003)..

IV. RESEARCH OBJECTIVE

The general objective of the study is to build a model of emotional intelligence, quality management, and principal leadership competence. From that, the specific objectives of this study are as follows:

1. Examining all constructs in all variables has validity and reliability.
2. Identify the influence of one significant variable on other variables in the model.
3. Identify the form of the model that can be developed to predict the appropriateness of the relationship between emotional intelligence, quality management, and the principal's leadership competence

V. LITERATURE REVIEW

Goleman (1995) has put forward an idea to explain some domains that can affect a person's emotional intelligence. Goleman's idea tries to explain the factors of failure and success of a person in his personal life and career from each perspective of emotional intelligence. Goleman (1999) states that emotional intelligence is the

ability to recognize one's feelings and the feelings of others, the ability to motivate oneself, and the ability to manage one's own emotions well as well as the ability to establish relationships with others. Goleman (1999) also stated that a person who cannot control emotions is quite difficult to interact with others, and is not able to carry out work well. They can also be classified as individuals who are less successful in their careers. Emotional outburst events that occur, especially at work, have implications for the level of emotional stability and maturity of the individual (Goleman, 1999). Goleman (1999) further states that emotional intelligence helps a person to succeed in his career.

Previous studies conducted by several researchers have proven the importance of emotional intelligence in influencing leadership effectiveness (Syarif Hidayat, 2014; Yahya Don, 2009). Leaders with a high level of emotional intelligence exhibit effective leadership behavior and influence followers to excel. Studies that prove that the level of emotional intelligence of leaders affects leadership behavior and effectiveness include Izani Ibrahim (2013); and Masaong Abd. Kadim (2012); Munroe (2009); Siti Faezah Hashim and Mohd Zuri Ghani (2013); Nurul Hudani Md Nawi, Ma'arof Redzuan, Hanina Hamsan and Ibrani Adam Asim (2013) and Zuraidah Juliana Mohamad Yusoff, Yahya Don and Siti Noor Ismail (2014).

Gill (2012) stated that previous leadership theories are outdated because they do not provide a clear picture and also a clear indication of the effects that can be obtained by leaders especially from the aspects of emotion, motivation, aspirations, and commitment, especially to the structure, culture, stability in the organization an increasingly complex school. Henry (2010) also stated that an understanding of organizational transformation by emphasizing psychological ideology and moral values can provide the strength of commitment from cognitive influences, environment, material rewards, and actions towards subordinates.

Gedden & Stickey (2012) found that leaders who have emotional intelligence and apply it have positive social skills that can influence the efforts of colleagues and subordinates in strengthening organizational progress. Junker and Botma (2012) also stated that a leader with high emotional intelligence can absorb passion, tenacity, and even an optimistic attitude in his efforts to build cooperation and trust through relationships and subordinates. In addition, Petitta and Ghazzi (2012) also see skills relating to others such as empathy, understanding conscience, being more alert, and being able to give feedback as important leadership skills.

In recent years, many studies related to emotional intelligence abroad have been conducted including in the South East of Iran (Ghazinedah & Moafian, 2010); the United Kingdom (Por, Barribal & Fitzpatrick & Roberts (2011); Turkey (Altuntas & Akyil (2011); Athens (Brinia, Zimianiti & Paganiotopoulus, 2014). In Malaysia, studies that link emotions and leadership include the study of Siti Faezah Hasyim and Mohd Zuri Ghani (2013) who found the existence of the influence of the principal's emotional intelligence on the teacher's work motivation. In the same year, Yukl's (2013) study found that the leader can influence his subordinates through the emotions displayed either positive or negative. Zuraidah, Yahya & Siti Noor (2014) also conducted a study regarding the emotional intelligence competence of school leaders as an important element that must be present in planning skills and strengthening school leadership programs to realize the call of PPPM 2013-2025. After that, Shafinaz A. Moulod, Chua Yan Piaw, Hussein Ahmad, Leong Mei Wei & Shahrin Alias (2016) who studied principals' emotional intelligence and its relationship with secondary school teachers' self-efficacy showed that principals' emotional intelligence affects teacher efficacy.

Various studies have been done, but no study emphasizes the role and influence of the leader's emotions on the leadership competence of school principals using a quality management approach. The function of the quality approach is effective in continuously improving the organizational system with the advantages of being productive, universal, and dynamic. Therefore, further research in this field should be done to increase understanding of the role of emotional intelligence and its impact on the formation of principals' leadership competencies.

A. Theoretical Framework of the Study

The three theoretical research frameworks used in this study are the Goleman-Noriah Theory by Noriah et.al (2002), the Iceberg Competency Model by Hay and Mcber (1993), and the last one is the Oakland Quality Management Model (1996) introduced by John S. Oakland in 1996.

Goleman-Noriah (2002) theory is a national and international gold medal winner and received recognition from the Seoul International Innovation Fair (SIFF)in 2004 which is the Goleman-Noriah Theory

(2004). However, the main feature of this theory selection is based on its suitability to the culture and needs of the country. This theory contains seven domains namely self-awareness, self-control, empathy, motivation, social awareness, spirituality, and maturity. Initially, this theory was introduced by Goleman in 1999 which covers the domains of self-awareness, self-control, empathy, motivation, and social awareness.

Next, the competence elements are taken from the Iceberg Competency Model by Hay Mcber in 1993. The Iceberg Competency Model is very popular used in educational research, especially in studying the level of competence of principals, teachers, and students this model emphasizes three main elements which are knowledge competence (cognitive domain), knowledge competence (psychomotor domain), and trait competence (affective domain).

Quality management theory used as a mediator in this study helps to connect the two main variables of the study. The quality management model used is the Oakland Model (1996). The selection feature for this theory is because the ISO construction module is based on the Oakland Theory which will make it in line with what is outlined by the characteristics and requirements of ISO. Although at the implementation level of quality management, there are several models produced by quality experts such as John Blake More, Kaoru Ishikawa, John Seddon, Stephanie Jackson, John Edge, and John S. Oakland (Abdul Kadir Mat Yazif, 1993; Muhammad Sulhan Lamatha , 2004), the Oakland Model is a quality management model based on concepts used by American experts such as Phil Crosby, Bill Conway, Deming, and Joe Juran.

VI. RESEARCH METHODOLOGY

This study is quantitative in nature by using a questionnaire that contains all important aspects to obtain selected information data. The questionnaires were personally distributed by the researcher to the respondents and the respondents were provided with a set of questionnaires. A quantitative study was chosen because it involves a large group and also it is related to issues and problems.

Study Sampling

A total of 152 principals serving in all secondary schools in Sarawak participated in this study. All principals involved are secondary school principals who serve under the Malaysian Ministry of Education. The technique of simple random sampling (simple random sampling) was chosen because this technique is a basic technique where the researcher identifies and selects a group of subjects (sample) to be studied from a larger group (population).

Study Instrument

To carry out this study, a set of IKEM-MEQI questionnaires constructed by Noriah et al (2003) was used as a research instrument. This instrument consists of 95 items using a five-point Likert scale to measure the seven domains of emotional intelligence, 10 quality management principles, and three competency characteristics.

Validity and Reliability of the Instrument

According to Othman Mohamed (2001), researchers must ensure the validity and reliability of research tools to ensure the validity and reliability of the test. Therefore, the researcher has asked the supervisor to examine the content of the instrument given to the students. Validity or legitimacy is a concept that refers to the extent to which the research tool measures what is to be measured or the extent to which the research tool fulfills its task (Anastasi & Urbina, 1997). An instrument can be validated if the instrument gives consistent results every time the measurement is made (Noraini Idris, 2010).

Internal consistency method (internal consistency approach) Cronbach's Alphaused in this study. In this method, items that have high reliability with test index scores have high reliability. While the items that have a low correlation value are removed from the test. If the value of r > .60, this means that the level of trust in the measurement tool is high (Ary et al., 2002; Chua, 2012). While a reliability coefficient is less than .60, it can be considered that the analyzed instrument has a low reliability value and needs to be improved or removed to increase the coefficient.

For this study, the reliability of the research instrument was examined to ensure that the measurer evaluates the dimensions that should be measured (Sekaran, 2000). Mohd Majid Konting (1997) suggested Cronbach Alpha at a level of 0.70 and above, as an Alpha value that has high reliability. In this study, the researcher used the recommended Cronbach alpha value of 0.70 as the accepted reliability value.

VII. FINDINGS

To answer the questions of the study and all reliable and valid measures used in this study, the researcher followed all the procedures and analysis procedures

recommended by Hair, Hult, Rinsle, and Sarstedt (2017). The two steps used are analysis of the measurement model and then analysis of the structural model.

Structural Proposed Model Validity for the Study of Emotional Intelligence, Quality Management, and Competence

This section involves the validity and reliability of the study. In this research, hypothesis testing uses the Partial Least Square (PLS) analysis technique with the SMARTPLS 3.0 program. PLS is a modeling approach to SEM without assumptions about data distribution (Vinzi et al., 2010). PLS-SEM becomes a good alternative to CB-SEM when the following conditions are found (Bacon, 1999; Hwang et al, 2010; Wong, 2010.). PLS can be used when the sample size is small, the application has little theory available and is also concerned with prediction accuracy.

PLS

The Partial Least Square (PLS) method is a statistical analysis approach predictive" which aims to model complex multivariate relationships between indicators and constructs". The Partial Least Square (PLS) analysis used in this study has integrated regression analysis and principal component analysis (PCA) to study predictive models that show the relationship between exogenous and endogenous variables. (Vijayasarathy & Turk 2012).

PLS structural equation modeling or variance-based variance was used in this study to develop the model (Hair Jr et al., 2013). Concerning SEM two different approaches are often used by researchers, which include CB SEM and PLS SEM. According to Hair et al., (2016) the CB SEM approach is often used when accepting or rejecting theories developed in certain studies while the PLS-SEM CV SEM approach is used to develop theories in exploratory studies. Therefore, for this study, the researcher will use the PLS SEM approach as recommended by Lowry & Gaskin (2014). There are important measurement models, which are used in PLS-SEM measurement models that include internal consistency reliability, convergent validity, and discriminant validity. There are two steps in PLS model evaluation, the first step is the measurement model evaluation while the second step is the structural model evaluation.

Internal Consistency Reliability

Convergent validity) is termed as the level of a construct explaining the variation that exists in its indicators (Hair et al., 2017). There are several criteria in convergent validity namely outer loading, Cronbach alpha, composite feasibility, and AVE (Hair et al., 2017, 2014; Gefen, Straub, and Boudreau, 2000). External loading is the measurement of relationships in the reflective measurement model (Hair, et al, 2017). External loading needs to exceed the value of 0.708 because it shows that the score of a construct is at least 50% of the total variance (Henseler, Ringle, & Sarstedt, 2015). Hair et a1 2017 stated that the AVE value should at least reach a value of 0.5. Meanwhile, the Cronbach Alpha value should reach a value of at least 0.6 (Hair et al., 2006).

However, contemporary studies reveal that the use of Cronbach's Alpha has many limitations. Therefore (McNeish, 2017) suggests the use of composite validity (CR) in dealing with challenges in the use of Cronbach alpha. Therefore, the value of composite realizability (CR) should at least exceed the value of 0.7 (Hair et al., 2010). Therefore, the value of CR should reach a value of at least 0.7 (Hair et al., 2010).

Reliability Values of the Emotional Intelligence Composite

For the emotional intelligence composite reliability value, the findings are as follows.

Table 1. *Reliability value of the emotional intelligence composite*

Items	Outer Loadings	CA	CR	AVE
EMPATHY		0.776	0.859	0.609
B9	0.713			
B10	0.611			
B11	0.820			
B12	0.940			
SELF CONTROL		0.858	0.902	0.698
B13	0.857			
B14	0.712			
B15	0.863			

B16	0.896			
SOCIAL AWARENESS		0.742	0.837	0.565
B17	0.729			
B18	0.634			
B19	0.802			
B20	0.827			
SPIRITUALITY		0.843	0.895	0.681
B21	0.887			
B22	0.811			
B23	0.825			
B24	0.773			
MATURITY		0.973	0.980	0.925
B25	0.946			
B26	0.988			
B27	0.974			
B28	0.938			
SELF-AWARENESS		0.818	0.879	0.646
B1	0.805			
B2	0.783			
B3	0.843			
B4	0.782			
MOTIVATION		0.843	0.895	0.682
B5	0.867			
B6	0.876			
B7	0.812			
B8	0.740			

Based on Table 1, the composite reliability value (CR) for all emotional intelligence constructs exceeds 0.7, namely empathy (0.859), self-control (0.902), social awareness (0.837), spirituality (0.895), maturity (0.980), and self-awareness (0.879). , and motivation (0.895).

Competency Composite Reliability Values

As for the reliability value of the competency composite, the findings are as follows.

Table 2. *Reliability of the competency composite*

Items	Outer Loadings	CA	CR	AVE
NATURE		0.918	0.932	0.606
D4A1	0.811			
D4A2	0.797			
D4A3	0.812			
D4A4	0.697			
D4A5	0.828			
D4A6	0.753			
D4A	0.757			
D4A8	0.691			
D4A9	0.843			
KNOWLEDGE		0.930	0.942	0.670
D4B1	0.801			
D4B2	0.822			
D4B3	0.847			
D4B4	0.769			

D4B5	0.849			
D4B6	0.807			
D4B7	0.835			
D4B8	0.816			
SKILLS		0.883	0.907	0.551
D4C1	0.697			
D4C2	0.758			
D4C3	0.750			
D4C4	0.818			
D4C5	0.647			

Based on Table 2, the composite reliability value (CR) for all the competency constructs exceeds 0.7, namely traits (0.932), knowledge (0.942), and skills (0.907).

Quality Management Composite Reliability Value

As for the reliability value of the quality management composite, the findings are as follows.

Table 3. *Reliability of the Quality Management Composite*

Items	Outer Loadings	CA	CR	AVE
VISION AND MISSION		0.894	0.927	0.761
C3A1	0.871			
C3A2	0.914			
C3A3	0.900			
C3A4	0.800			
LEADERSHIP		0.898	0.929	0.767
C3B1	0.865			
C3B2	0.914			
C3B3	0.914			
C3B4	0.808	0.793	0.866	0.618
ORGANISATIONAL STRUCTURE				
C3C1	0.799			
C3C2	0.839			
C3C3	0.773			
C3C4	0.730			
PLANNING		0.861	0.906	0.707
C3D1	0.851			
C3D2	0.869			
C3D3	0.775			
C3D4	0.865			
MANAGEMENT AND RESOURCE DEVELOPMENT		0.701	0.825	0.611
C3E1	0.814			
C3E2	0.779			
C3E3	0.750			
INFORMATION MANAGEMENT		0.851	0.901	0.695
C3F1	0.868			
C3F2	0.875			
C3F3	0.853			
C3F4	0.730			
PERSONALITY DEVELOPMENT STUDENTS		0.735	0.838	0.578
C3G1	0.852			
C3G2	0.871			

C3G3	0.809			
C3G4	0.416			
ACHIEVEMENT EVALUATION		0.825	0.884	0.656

Based on Table 3, the composite reliability value (CR) for all quality management constructs exceeds 0.7, namely vision and mission (0.927), leadership (0.929), organizational structure (0.866), planning (0.906), resource management and development (0.901), development student personality (0.838), student achievement evaluation (0.884), program management (0.883), and teaching and learning (0.827).

Discriminant Validity

In Smart PLS, there are three criteria used to check discriminant validity - including Fornell and Larcker, cross-loading, and HTMT criteria.

Fornell and Larcker

The Fornell-Larcker (1981) criterion has been commonly used to assess the level of variance shared between the latent variables of the model. This according to Fornell & Larcker (1981) this method measures the degree of difference between two similar concepts in one model. This indicates that the root of the AVE quantity along the diagonal should be higher or greater than the correlation of the off-diagonal variables. The results in the table below show satisfactory or sufficient discriminant validity as suggested (Fornell and Larcker, 1981), where the square root of AVE (diagonal) is higher than the correlation (off-diagonal) for all reflective constructs.

Heterotrait-Monotrait Correlation Ratio (HTMT)

Assessment of discriminant validity has become a generally accepted prerequisite for analyzing relationships between latent variables. For variance-based structural equation modelings, such as partial least squares, the Fornell-Larcker criterion, and cross-loading checks are the dominant approaches for assessing discriminant validity. However, Henseler, Ringle & Sarstedt (2015) suggested the use of HTMT as a new form of detecting discriminant validity. This is because Fornell and Larcker's criteria are considered accurate in detecting discriminant validity in contemporary research situations. In addition, Henseler, Ringle & Sarstedt (2015) showed the advantages of the MTMT criteria with a Monte Carlo simulation process, the results show that the HTMT criteria has a higher sensitivity and specificity rate between 97-99%, compared to Fornell Larcker which has a percentage of 20.82%, and the method 0% cross loading. There are two main approaches to detecting discriminant validity when using the HTMT.

The initial approach examined the range of HTMT, suggested by Kline (2011) as 0.85 while Emas, Malhotra & Segars, (2001) suggested an HTMT value of 0.90 to indicate that there is a challenge to discriminant validity if the value exceeds the established threshold. The second approach, which is often used when studying statistical tests, if the confidence level of the HTMT value concerning the structural band has a value of 1, this reflects a lack of discriminant validity. However, if the value of 1 is not within the distance range then discriminant validity is detected (Henseler, Ringle & Sarstedt, 2015). Therefore, the results in the HTMT table show that the value does not exceed 0.85 or 0.90. Therefore, there is no problem with the legality of discrimination.

Cross Loading (Cross Loading)

Cross-loading assesses discriminant validity by evaluating the loading indicators in a specific latent variable where it should be higher than the other latent variables. Chin (1998) showed that the difference between the loads should not be less than 0.1. The results show that the AVE along the diagonal line is increased compared to other latent variables, so the discriminant validation is valid.

Structural Model

Evaluating the validity and reliability estimates allows the evaluation of the inner model estimates (Henseler et al., 2015). Structural equation modeling is a multivariate statistical analysis technique used to analyze structural relationships. This technique is a combination of factor analysis and multiple regression analysis, and it is used to analyze the structural relationship between measured variables and latent constructs. There are many methods used in research studies to study structural models that include similarity, importance, and correlation of structural relationships, R square, F square, and predictive relevance, (Chin, 1998, Urbach and Ahleman, 2010; Haier et. al., 2017).

Collinearity

When studying structural models, the first step is to deal with issues related to collinearity. "Collinearity describes the condition where two or more predictor

variables in a statistical model are linearly related" (Alin, 2010). Ideally, Collinearity refers to the covariance of independent variables, usually in a regression-type analysis. However, Kock and Lynn (2012) point out that multivariate issues can usually be confounding in some circumstances in an unavoidable way, which can "hide" strong causal effects in the model. To study errors, researchers are required to observe VIF values, where (Henseler, Ringle & Sarstedt, 2015) recommend VIF values of .5 and above depict collar issues. From the table below, it can be observed that the internal VIF values for each construct are within the specified range .5. Therefore, PLS-SEM can proceed with the test procedure.

Table 4. *Collinearity*

Emotional Intelligence Quality Management	Competence	Quality Management
Emotional Intelligence	1,337	1,000
Competence		
Quality Management	1,337	

R Square (R Square)

The coefficient of determination score is used to aid the ability of a particular model to predict. This means that R2 is a measure that gives a given model its predictive ability. R2 represents "the sum of variance in an endogenous construct explained by all exogenous constructs associated with it." The range of R square prediction ability is between 0-1, many authors have provided different ranges for R square. According to (Urbach and Ahlemann, 2010) R2 should be high enough to ensure that minimal explanatory power is achieved in a given model. Hair et al., (2017) suggested a range of 0.75, 0.5, and 0.25 where it means great, moderate, and poor prediction accuracy. Coherently, (Chin, 1998) suggested 0.76, 0.33, and 0.19 as the accuracy of prediction accuracy, medium or weak. From the table below, it can be determined that competence and quality management have an R-value of 0.466 and 0.252, which respectively indicate moderate and weak levels.

Table 5. *R Square*

Variables	R Square	R Square Adjusted
Competence	0.466	0.459
Quality Management	0.252	0.247

F Square (F Square)

The effect of the size of a given predictor construct can be examined using F2as suggested by Cohen (1988). Examine the relative effects of predictors on endogenous constructs. In a more detailed way, evaluate the strength of the exogenous construct contribution to describe a given endogenous construct in the context of R^2. There are recommended thresholds for studying F2as described by Cohen (1988) where F2 values of 0.35, 0.15, and 0.02 represent large, medium, and small effect sizes respectively.

Table 6. *F Square*

Variables	Y1: Emotional Intelligence	Y2: Competence	Y3: Quality Management
Y1: Emotional Intelligence	0.012		0.337
Y2: Competence			
Y3: Quality Management		0.558	

Q Square (Predictive Relevance)

The use of predictive correlation techniques allows the use of two different types of Q^2, namely SSO and SSE (Hair et al., 2017). Where he Q^2 checked or blindfolding procedure in smart PLSM. Fornell and Cha (1994) suggest that if the Q^2 value is greater than zero, then it indicates that the model has predictive relevance. From the table below, it can be confirmed that the values

VIII. DISCUSSION

The results of this study show that emotional intelligence and quality management have a significant influence on the leadership competence of secondary school principals in Sarawak. After the analysis was carried out, the model developed to predict the appropriateness of the relationship between emotional

intelligence and the competence of secondary school principals in Sarawak is appropriate.

This developed model shows that the principal's emotional intelligence affects their leadership competence where the principal's emotional intelligence has seven dimensions namely self-awareness, self-regulation, empathy, motivation, social awareness, maturity, and spirituality. Next, the principal's competence consists of three dimensions, namely nature, knowledge, and skills, which will increase when elements of emotional intelligence and quality management are included to make them efficient in their duties. Principals who are efficient in identifying and managing emotions can influence teachers to carry out teaching tasks and manage the classroom effectively as stated by Quah Cheng Sim and Wan Asmiza (2012) in their study.

Because of that, this study supports the study made by Yukl (2013) who found that leaders can influence subordinates through their emotions. The strength of the significant relationship between emotional intelligence, and this competence is from the role of quality management as a mediator. Through this relationship, the quality of management is more effective in producing principals who excel in leadership and also their administration in managing their schools.

The validity of the constructs discussed to build this model is one of the pre-conditions for the instrument's validity. The aspects of reliability measured with Cronbach's alpha and composite reliability as well as some key aspects that measure convergent validity and discriminant validity prove that the constructs brought into the study model meet the specified requirements.

The developed model is validated to check its usefulness. Validation is done by checking the stability of the model by calculating the adequacy of the sample size with a power analysis test. The power test ($1 - \beta$) is to check the stability of the model parameters with the sample size used for the analysis. This is to verify whether the sample size used is sufficient to generate a stable model. This test was carried out by calculating the power of the model through the software package G * Power 3.1.2]. The required input parameters for the software are the significance level (α) of the test, the sample size (N) of the study measure, and the effect (ES) of the population. Effect sizes were calculated using the equation of Cohen et al (2003).

The input parameters for this study are a significance level of 0.01 (ie, 99% confidence level), a sample size (N) of 152, and an effect size (ES) of 0.73. Power analysis generated values for various sample sizes are shown in Table R2. It shows that overall model power increases as the number of sample sizes increases. It reaches 100% power at the size of a sample of 50 because this study used 152 samples and it is clear that it is more sufficient to achieve a large power.

Based on the results of the hypothesis test above, it can be concluded that the application of emotional intelligence should be supported by the principal's competence. This is because in a study it was mentioned that problematic management can occur due to principles in supervision and monitoring (Quah Cheng Sim and Wan Azmiza, 2012). In addition, due to lack of experience or lack of understanding principal about problem management and its handling. So the Ministry of Education in general and in particular schools in this regard should always provide support to support the competency of the principals.

The results of this hypothesis test strengthen the research done by Syarif Hidayat (2014) and Yahya Don (2009) who wrote the conclusion that the principal's competence has a significant influence on management tasks. The variables of management tasks have similarities with the competencies of some of the indicators used. Among them, the principal must pay attention to the procedures in carrying out his duties as an organizational leader and the principal must pay attention to the quantity and quality of management in a balanced manner. The research hypothesis can be stated as accepted when the P-value <0.05. Based on the results of the data, it can be seen that from the hypothesis proposed in this research, everything can be accepted because each influence shown has P-Values <0.05. So it can be stated that the independent variable has a significant influence on the dependent variable.

Based on the results of the study, as a whole will give implications to the Ministry of Education Malaysia (KPM), especially the education policy maker of the Ministry of Education and the Aminuddin Baki Institute as a training center for education management of the Ministry of Education. In addition, it will be able to increase commitment to the principal, as the main planner of the school's financial management. In addition, this study will be a pioneer in the development of principals' emotional intelligence, especially involving competence. The model formed in this study

will at least be able to explain the meaning, form, and characteristics of the emotional intelligence and competence of principals in Malaysia. Principals who have a high level of emotional intelligence are more skilled in carrying out their duties. Therefore, the Emotional Intelligence-Competency Model that was built becomes unique for an organization because it takes into account the work culture and the principal's job function in the organization. The same competence is applied to the function of the task. different will produce different outputs.

To make a better assessment of the direction of the causal relationship between the studied variables, future studies are expected to be conducted longitudinally or across time, ie by taking data at two different times.

After all, this kind of study may be more sensitive because it involves ethical aspects of leaders, a combination of quantitative and qualitative methods is suggested to reduce bias and variance that may affect the results. Finally, future researchers are advised to conduct further studies to modify and improve this structural model, especially from the forecasting aspect. (predictive)and parsimony to further validate this model to allow this model to be generalized to a wider context.

VIII. CONCLUSION

This study makes a meaningful contribution to the reference of leadership competence, especially in the context of education in Malaysia, considering that research on emotional intelligence in Malaysia is still not carried out much.

The use of the competency model as the core of human resource management is the starting point for the transformation of public services in the new millennium. It is the basis that will trigger a change of mind and paradigm in human resource management to fulfill the vision of the Ministry of Education in the Malaysian Education Development Plan 2013-2025.

This study also provides exposure in addition to increasing knowledge and wider understanding of emotional intelligence and its impact on organizational results in the context of higher education institutions such as schools. In addition, this study also provides feedback on the level of emotional intelligence, maturity, quality management, and competence and confirms the relevance of these constructs in the context of Malaysian culture.

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