Prioritisation of factors influencing teachers’ job satisfaction in the UAE

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Abstract: This study is the first to include four main factors with proven influence on teachers’ job satisfaction in a comprehensive model for the UAE: motivation, school leadership style, job characteristics, and cultural intelligence (CQ). The objectives of this empirical study are (a) to provide an overview of the 20 sub-factors associated with each main factor, (b) to determine the preferences and priority that UAE private school teachers attribute to the four main factors of job satisfaction and their 20 sub-factors, and (c) to summarise these findings into a new analytical hierarchical model. An analytic hierarchy process (AHP) method has been chosen to resolve this multi-criteria decision-making dilemma to construct a comprehensive model. ‘Recognition’, ‘pay’, and ‘autonomy’ scored as the teachers’ highest concerns. Focusing on these aspects should, therefore, be a priority for private school management in order to decrease teacher turnover.

Keywords: education; teacher; turnover; job satisfaction; AHP; analytic hierarchy process; UAE; United Arab Emirates.


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1 Introduction

Job satisfaction has become a popular measure because it captures many factors, including job security, career mobility, absenteeism, productivity and job performance.
(Kantas, 1998). In fact, the intentions of other employees to leave or stay at an organisation are important influencers of job satisfaction (Gkolia et al., 2014). Starting in the late 1900s, more attention has been given to teachers’ job satisfaction because of the increasing rates of teacher attrition (Macdonald, 1999). These high rates were caused by teacher turnover (Chambers, 2010). Experts believe that the cost of teacher turnover is very high but is not quantifiable due to many complications. The cost of hiring a new teacher differs from place to place, and there are hidden costs due to the difficulties in finding new teachers, including signing bonuses and subject matter stipends. Benner (2000) said that teacher turnover involves additional, immeasurable losses, such as the loss in teaching quality and students’ achievement. In fact, the real cost of replacing teachers is not obvious because it is not highlighted in any line item of the administrators’ annual budget (Synar, 2010).

Over the last 20 years, many researchers have tried to highlight the sources of teacher satisfaction and dissatisfaction (Zembylas and Papanastasiou, 2004). Although many factors affect job satisfaction, this research will cover four main factors: motivation (Nadim et al., 2012; Shabbir and Wei, 2015), school leadership style (Josanov-Vrgovic and Pavlovic, 2014), job characteristics (Na-Nan and Pukkeeree, 2013) and cultural intelligence (CQ) (Bücker et al., 2014) – all of which have been shown to play an important role in teacher satisfaction. People usually respond in unique and personal ways when faced with specific rewarding or under-rewarding circumstances. Culture has a significant effect on an individual’s perception of a given rewarding situation as suggested by Hofstede’s dimensions (McGee, 2007). Thus, many similar studies of the factors that affect teachers’ job satisfaction – including motivation, job characteristics, school leadership style and CQ – produce different outcomes as an effect of cultural differences, such as the UAE unique divers culture.

Ahmed (2011) reported a “teacher turnover rate up to 60% a year at some schools in Dubai”, which is a terrifying rate. This statistic came from the Dubai School Inspection Bureau (DSIB) Report that assessed 136 schools from October 2010 to April 2011. According to Dr. Abdulla Al Karam, Director General of the Knowledge and Human Development Authority, private schools in Dubai had an extremely high teacher turnover (Ahmed, 2011). According to the Private Schools Educational Landscape 2013–2014 report, there are 158 private schools with 243,715 students and 14,333 teachers in total in Dubai (Dubai School Inspection Bureau [DSIB], 2014). The average teacher turnover rate was approximately 16% in 2013 (DSIB, 2013). This means that more than 2293 teachers and 243,715 students are directly affected by the turnover phenomena in Dubai. But the question remains, what about the rest of the UAE? Therefore, the objectives of this empirical study are as follows:

1. To provide an overview of the 20 sub-factors associated with each main factor.
2. To determine the preferences and priority that UAE private school teachers attribute to the four main factors of job satisfaction and their 20 sub-factors.
3. To summarise these findings into a new analytical hierarchical model that can be tested and validated in future research.

The purpose of this study is to explore the factors that affect private school teachers’ job satisfaction. The results will provide private school management in the UAE with a broader view of the common problems facing teachers. This study could also lead to solutions for improving teachers’ job satisfaction. The recommendations for addressing
the identified issues will lead to higher profitability for schools by reducing the high teachers’ turnover rate (Kroth, 2007). The findings will provide greater focus on the positive changes that will enhance the school management’s efforts to increase teachers’ job satisfaction. This research will be beneficial not only for existing private school management and owners but also for potential investors, the UAE education authority and local education authorities.

This research will be the first to rank all the identified four factors and their sub-factors according to the degree of their influence on teachers’ job satisfaction in the UAE using an analytic hierarchy process (AHP) methodology. The AHP is a systematic way to compare a list of factors (criteria) and sub-factors (sub-criteria) in a hierarchical fashion. It is a kind of a structured decision-making instrument used for arranging and examining complex decisions that involve many criteria and alternatives (Unutmaz, 2014).

The paper is arranged as follows. The upcoming section presents a literature review of major concepts pertaining to teachers’ job satisfaction, motivation, job characteristics, school leadership style and CQ. Section 3 discusses the methodology and the AHP model. Section 4 presents the results and analysis. Finally, section 5 includes a discussion of the findings, conclusions and implications.

2 Literature review

In most of AHP research, decision-makers (experts) are required to provide verbal, qualitative statements regarding the relative importance of one criterion over another, relying on their experience and knowledge. In fact, the process of decision-making is complex and poses a great deal of uncertainty, which requires qualitative preference by using the pairwise comparisons approach. The pairwise comparisons approach does not involve unwieldy mathematics (Kundacı et al., 2016). And, the qualitative methods are mainly inductive, which is in contrast to the deductive approaches of experimental science. Qualitative scholars argue that their work does not consist of testing hypotheses. They are mainly interested in understanding a specific situation or (sub)cultures or individuals or groups of individual, etc., instead of explaining and predicting future behaviours as hard sciences do (Bendassolli, 2013).

In the following section, we try to browse literature to identify all well-known sub-factors of the four main factors that have been mentioned earlier. Later on, the expert teachers will be using their experience and knowledge to prioritise all the four identified factors and their sub-factors and rank them according to the degree of their influence on the teachers’ job satisfaction. It is not a part of the scope of this study to measure the relation of the four factors and their sub-factors with teachers’ job satisfaction as usual quantitative studies do.

2.1 Teachers’ job satisfaction

Hoppock (1935) has initiated the first detailed investigation of the concept of job satisfaction (Butler, 2010). The human relations movement has since affected the concept of satisfaction and emphasised the need for further research. Although there are many definitions of job satisfaction, there has been no scholarly agreement on the definition (Gkolia et al., 2014). In fact, since it is a multidimensional and dynamic construct (Noori et al., 2014), the definition should change based on the research subject (Gkolia et al., 2014).
Job satisfaction, according to Hoppock, is “any combination of psychological, physiological, and environmental circumstances that cause a person truthfully to say I am happy with my job” (Butler, 2010). Carroll and Blumen (1973) describe it as an “affective orientation of the individual toward work” (Cited by Turner, 2007). Job satisfaction is one of the most examined concepts in the human resources field (Giraldo O’meara et al., 2014).

The levels of teachers’ job satisfaction vary depending on individual and school characteristics (Spear et al., 2000). Teachers’ satisfaction also depends on teachers’ roles and their perception of those roles (Lawler III, 1973). Over the last 20 years, many researchers have tried to highlight the sources of teacher satisfaction and dissatisfaction. Teachers’ job satisfaction involves the capability to work with children, recognition, decision-making involvement, school’s leadership style that promotes participation, autonomy to be creative, personal and professional development, opportunities and intellectual challenge that teaching offers, cooperation and friendships developed. On the other hand, teachers’ job dissatisfaction involves the lack of empowerment and professional autonomy, low decision-making involvement, role confusion and ambiguity, substantial bureaucratic-administrative tasks and workload, poor pay, bad physical working conditions, inadequate resources, ambivalent evaluating criteria, many forced educational reforms, low professional development, lack of effective school administration, constant criticism and low recognition by society for their contribution (Anastasiou and Papakonstantinou, 2014).

2.2 Motivation

Ryan and Deci (2000) said that “to be motivated means to be moved to do something. A person, who feels no impetus or inspiration to act, is thus characterized as unmotivated, whereas someone who is energized or activated toward an end considered motivated”. Kroth (2007) has mentioned that the discussion of “what moves people, and then keeps them moving” has been going on since at least the time of ancient Greece.

Abraham Maslow was the first to address the scientific motivation theory. He said that humans have several needs because they are psychological and social entities. The purpose of his theory was to explain human motivation and the personal development needs of employees (Ozguner and Ozguner, 2014). Kroth (2007) said that the “Maslow theory is one of the most referenced motivational theories in academic and management literature”.

There are other well-known motivation theories apart from Maslow’s Hierarchy of Needs theory (Maslow, 1954), such as Herzberg’s motivation-hygiene theory and McGregor theory. According to Herzberg’s theory, job satisfaction and job dissatisfaction have different causes. Job satisfaction depends on motivators, whereas job dissatisfaction is the result of hygiene factors. He argued that motivators are intrinsic to the job, while hygiene factors are extrinsic to the job (Ozguner and Ozguner, 2014). Herzberg’s theory can be applied in the field of education even though it was largely applied in the business field (Boyer, 2013).

Numerous instruments for measuring job satisfaction have been developed and used over the years (Gkolia et al., 2014). These instruments are designed and selected based on the specific type of the research. Teacher Job Satisfaction Questionnaires (TJSQs) are the most used instruments to measure teachers’ job satisfaction. They assess nine motivators: supervision, colleagues, working condition, pay, security, work itself,
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advancement, responsibility and recognition (Best, 2006). Supervision generally refers to the style of management of the school principal and the administrators at the district level (Bumgartner, 2013) and will be covered and measured under the school leadership styles factor. Further, work itself also will be covered and measured under the job characteristics factor.

Advancement or promotion: While most professions have many levels that allow the employee to improve and show initiative and progress, the profession of a teacher offers only one upper level to move to, the school administration (Derlin and Schneider, 1994).

Responsibility: “The opportunity to be accountable for one’s own work and the opportunity to take part in policy or decision-making activities” (Lester, 1982).

Colleagues: Employees are more satisfied if they work in an organisation that has the right structure and environment for positive interaction among its employees (Bumgartner, 2013).

Recognition: Employees want appreciation for accomplishing their work, and this appreciation contributes to job satisfaction (Knox, 2011).

Working conditions: All aspects of an organisation, such as policies and procedures, affect the working conditions, whether they have a positive or negative impact on employee job satisfaction (Bumgartner, 2013).

Pay: The completion of normal tasks that are required by the nature of the job are rewarded with pay (Bumgartner, 2013).

Security or job security: Employees feel secure when they have policies to protect them with regard to dismissal, retirement, pension and layoffs (Knox, 2011).

All seven motivators that were mentioned previously influence job satisfaction, but their effects differ from place to place and from one study to other. In a study by Thekedam (2010) that investigated the job satisfaction of higher secondary school teachers in Kerala, India, he ranked nine factors (including the above seven) that needed to be investigated, without using the AHP method, which are as follows: 1) working conditions, 2) job security, 3) work itself, 4) pay, 5) responsibility, 6) recognition, 7) colleagues, 8) supervision and 9) advancement or promotion. In a governmental employee study in Rad and Razavi (2015) ranked some of the previous factors, using the AHP method, which are as follows: 1) salary and benefits, 2) upgrade and promotion, 3) job type, 4) supervisor and 5) co-workers.

2.3 School leadership style

Teachers’ satisfaction and the school leadership style are two significant factors in the functioning of the school. Various studies have also concluded that school leadership style is one of the key factors influencing teachers’ satisfaction (Josanov-Vrgovic and Pavlovic, 2014). The following school leadership styles are most mentioned in the literature and will be measured by a newly developed spectrum in relation to teachers’ job satisfaction:

Transformational leadership was defined by Jean Brown in 1991 as leadership for change. Transformational leadership tries to affect the conditions that directly affect the quality of instruction and curriculum provided to students in school. It aims to change procedures by encouraging continuous learning among school employees, sharing knowledge within the organisation and working hand-in-hand with the society to achieve wider organisational objectives (Onorato, 2013).
**Transaction leadership** is where a leader exchanges one thing for another. In addition, a leader tries to reach goals based on individual needs, concentrating on strategic problems and favouring the system that supports bottom-line outcomes (Harris, 2008).

**Participative leadership** is practised by school leaders who consult with their teachers to make shared decisions. Teachers are asked for their input, which establishes a cooperative relationship (Ngotngamwong, 2012).

**Situational leadership** spins around the word ‘fit’ by matching the response of the leader to the needs of the individuals, the group and the goals. Situational leaders apply different approaches based on the situation that they are facing (Kight, 2007).

**Servant leadership** was defined by Robert Greenleaf in 2003 as being less concerned with directing people and more focused on serving them. This theory is a combination between Christianity and a standard leadership style. Greenleaf believed that organisation would be more efficient and successful if the leader of an organisation were to act more like a servant to the followers (Brown, 2011).

Guagulwong (1981) and Smith (2000) examined the leadership styles of school leaders and the job satisfaction of teachers; their results indicated that the behaviour of the school leadership does not influence the teachers’ job satisfaction. Benit (1991) also examined this relationship and found that there is a positive correlation between teacher’s job satisfaction and leadership styles (Eldred, 2010).

Many studies have found that transformational (Chin, 2007), transactional (Kieres, 2013), participative (Ngotngamwong, 2012) and servant (Cerit, 2009) school leadership have positive relationships with teachers’ job satisfaction. Although some studies have compared a few of these styles, the author has not encountered any research that studied all five of the mentioned leadership styles. In a study of leadership style preference in influencing employee satisfaction in an Iranian oil company, Afshinpour, Germain, Tomlin and Anderson (2014) ranked the leadership styles without using an AHP method as follows: 1) situational, 2) transformational, 3) autocratic, 4) transactional and 5) charismatic.

### 2.4 Job characteristics

The Job Characteristics Model has been used extensively due to its high adaptability to diverse employee groups and different kinds of organisations. The theory is that particular job features can influence job involvement. These features could, therefore, affect the employees’ internal motivation (Leblanc, 2014) and job satisfaction (Hadi and Adil, 2010). Hackman and Oldham (1975) discovered five job characteristics that were sources of job satisfaction: skill variety, task identity, task significance, autonomy and feedback (Leblanc, 2014).

Skill variety is the degree to which a task requires diverse activities to be completed. Task identity, on the other hand, is the degree to which a task involves executing all of the required processes from the start until visible result is achieved, rather than merely performing one part of the job. Task significance is the importance of the organisation’s existence. Moreover, autonomy is the freedom given to the worker to complete the task the way he/she chooses. And finally, feedback is the information that is given to the worker about the effectiveness of their task (Leblanc, 2014).

These five job characteristics can combine to create three critical positive psychological situations for workers: experienced meaningfulness, experienced
responsibility and knowledge of results. Experienced meaningfulness is always described as a situation of the mind in which employees feel that their work is valuable and worthwhile. Experienced responsibility is the feeling of a personal accountability for the job output. Meaningfulness is influenced by skill variety, task identity and task significance whereas the sense of responsibility is influence by autonomy (Leblanc, 2014).

Many studies have provided empirical proof of the positive relationship between these job characteristics and job satisfaction (Na-Nan and Pukkeeree, 2013). For example, feedback was found to be a significant factor for satisfaction in banks (Hadi and Adil, 2010). Hunter (2006) also found that four job characteristics (task significance, task variety, task identity and feedback) are significant predictors of job satisfaction (Hadi and Adil, 2010). The author is not aware of any studies that use a job characteristics model in a school environment in relation to teachers’ job satisfaction, nor is he aware of any studies on the prioritisation between the five factors of job characteristics in relationship to job satisfaction.

2.5 Cultural intelligence (CQ)

Until the beginning of the 21st century, there was little systematic research into measuring adult intelligence. However, a new type of intelligence, the cultural intelligence (CQ), has recently been established by Earley and Ang (2003). The CQ focuses on the ability to solve different kinds of problems explicitly in the cultural realm. The CQ was constructed within the professional discussion of Sternberg and Detterman’s (1986) integrative theoretical framework on multiple loci of intelligences to measure a set of capabilities (containing mental, motivational and behavioural components) that focus explicitly on resolving cross-cultural problems. Gelfand, Imai and Fehr (2008) described the construct of CQ as a “new kid on the scientific block” (Ng et al., 2012).

The globalisation phenomenon is a reality facing businesses, multinational organisations, educational institutions (Keung and Rockinson-Szapkiw, 2013) and countries such as the UAE, which has one of the world’s greatest net migration rates (Al-Jenaibi, 2012). The UAE has a diverse culture, which is a form of deep-level heterogeneity (Lauring and Selmer, 2013). Intercultural schools are a microcosm of the internationalisation that is spreading all over the world, including in the UAE. Any international school is considered to be an intercultural school (Keung and Rockinson-Szapkiw, 2013), which includes most of the private schools in the UAE.

The CQ is defined as “a person’s capability for successful adaptation to new cultural settings, that is, for unfamiliar settings attributable to cultural context” (Earley and Ang, 2003; cited by Deng and Gibson, 2008). At first, the CQ was considered as an individual level construct, but it has since been applied to groups, teams, organisations and even nations. The CQ concept has drawn substantial attention worldwide and across various disciplines (Van Dyne et al., 2008).

According to Earley and Ang (2003), the CQ is a multidimensional construct containing metacognitive, cognitive, motivational and behavioural dimensions. The metacognitive facet involves mental processes used to gain and comprehend cultural knowledge. Related abilities include planning, monitoring and reviewing mental models of cultural norms. The cognitive facet includes knowledge of the norms, practices and conventions in different cultures that are gained from personal experience and education,
such as knowledge of the economy and basic frameworks of cultural values (Petrović, 2011). The motivational facet is related to guiding attention and power towards learning about and functioning in culturally different situations. Finally, the behavioural facet is related to the ability to exhibit verbal and nonverbal actions that are culturally appropriate while interacting with people who are from other cultures (Rockstuhl et al., 2011).

Kim et al. (2008) mentioned, as a limitation of their study, that “future studies need to include other indicators of international assignment effectiveness, such as job satisfaction”. Barakat et al. (2015) mentioned that CQ has a significant positive relationship with job satisfaction, whereas Diao and Park (2012) mentioned that CQ has substantial positive relationships with “some specific aspects of job satisfaction”. Diao and Park (2012) found that both motivational and behavioural factors predict job satisfaction. However, there have been no direct measurements of the relation between CQ and job satisfaction. The AHP method will allow for valuable measurements of the direct relationship between the CQ of the school principal and teachers’ job satisfaction in this study.

3 Methodology and model

3.1 AHP overview

The analytic hierarchy process (AHP) as a concept was introduced in the 1970s (Saaty, 1983). It was originally developed by Saaty (1980) to provide a methodology for solving various kinds of multi-criteriorion decision problems, depending on the related priorities allocated to each criterion’s role in reaching the stated objective. It is a scoring model that depends on subjective managerial inputs on multiple factors (criteria). These inputs are transferred into scores, which are employed to assess possible alternatives. It is a powerful management tool and is very valuable in structuring complicated multi-criterion, multi-person decisions in both economics and business (Handfield et al., 2002).

The AHP was not invented to replace the thinking of decision-makers. It is designed to organise their thoughts. The strength of the AHP is that it treats the decision as a system, which is very hard for numerous decision-makers to do. Limited cognitive processes and bounded rationality make it almost impossible for decision-makers to take into account all of the factors that are involved in a complicated screening decision. Without tools like the AHP, decision-makers would decide based on a subset of criteria while not comprehending their interactions and relative importance. The AHP simplifies complex decision processes by treating them in a systematic manner. Conducting this type of analysis allows decision-makers to prioritise the criteria in ways that might otherwise be infeasible (Handfield et al., 2002). The AHP makes the prioritisation problem simpler and more meaningful by reducing the list into pairwise comparisons with a ratio assessment for each pair.

Lee and Drake (2010) and Ishizaka et al. (2012) explained that the AHP is an emerging solution to simplify multi-criteria decision-making and complex real-world problems (Hussain et al., 2015). Since its invention, the AHP as a tool has been used widely by decision-makers and researchers in various situations, such as resource allocation, planning, selection of the best alternative, conflict resolution, optimisation and
education. The AHP is very flexible and can be integrated with various techniques such as fuzzy logic, quality function deployment, linear programming, etc. (Vaidya and Kumar, 2006).

3.2 AHP model and methodology steps

Further, 20 sub-factors that have proven to influence job satisfaction were gathered from the literature. Since many factors were considered and analysed in this study, it can be regarded as a multi-criteria decision-making problem. Therefore, the AHP technique was chosen as the most appropriate and useful approach to simplify ranking the four main factors and their 20 sub-factors since it is widely used for solving multi-criteria decision-making problems such as this one.

In this study, the expert teachers will face a big challenge in prioritising the main four factors and sub-factors at once without a multi-criteria decision tool such as the AHP. The AHP is the most appropriate tool to determine preferences and prioritise all of the factors that influence the job satisfaction of private school teachers in the UAE. Figure 1 summarises the AHP methodology steps (Saaty, 1990).

Figure 1 AHP methodology steps
According to the AHP methodology, the first step is to identify the problem. The purpose of the study is to determine the teachers’ preference for and prioritisation of the factors that influence their job satisfaction in the eyes of their experts. In this step, all factors must be determined and examined. The four main factors and their sub-factors have been chosen based on literature, resulting in a total of 20 factors.

In step 2, a hierarchical model is developed to assess the problem systematically. The problem is simplified and broken into more easily understood sub-problems so that each of them is analysed independently. Figure 2 illustrates the AHP model for measuring the factors that influence teachers’ job satisfaction. In the AHP structure, first, the hierarchy is built, and then criteria and sub-criteria are classified to make pairwise comparisons. The goal (teachers’ job satisfaction) can be seen at level 1. The four ranking criteria (competitive priorities) can be seen at the second level. The sub-criteria, which are used to measure the criteria, can be seen at the third level. The rating scale, which is used to evaluate the impact of individual alternatives (components) on the sub-criteria, can be seen at level 4. The alternatives (components) that need to be evaluated can be seen at the last level (Drake et al., 2013).

Figure 2  AHP model for measuring factors influencing UAE teachers’ job satisfaction
In step 3, the questionnaire form is developed, containing pairwise comparisons between main criteria and sub-criteria for each main criterion. Saaty (1983) recommended a nine-point scale, as presented in Table 1, to determine pairwise comparison criteria. For example, if a teacher strongly identifies motivation as more important than school leadership styles, the former is marked ‘5’ and the latter ‘1/5’ and so on (Hussain et al., 2015). Ishizaka and Labib (2009) explained that “psychologists argue that it is easier and more accurate to express one’s opinion on only two alternatives than simultaneously on all the alternatives”.

### Table 1
1 to 9 scale for the AHP preferences

<table>
<thead>
<tr>
<th>Intensity of Importance</th>
<th>Definition</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equal importance</td>
<td>It is equally favouring one factor over another.</td>
</tr>
<tr>
<td>3</td>
<td>Moderate importance</td>
<td>It is slightly favouring one factor over the other.</td>
</tr>
<tr>
<td>5</td>
<td>Strong importance</td>
<td>It is strongly favouring one factor over the other.</td>
</tr>
<tr>
<td>7</td>
<td>Very strong importance</td>
<td>It is very strongly favouring one factor over the other.</td>
</tr>
<tr>
<td>9</td>
<td>Extreme importance</td>
<td>It is the highest preference of one factor over the other.</td>
</tr>
<tr>
<td>2, 4, 6, 8</td>
<td>Mid values</td>
<td>It is the intermediate values used to represent compromise between the priorities listed above.</td>
</tr>
</tbody>
</table>

The questionnaires were pilot-tested by two expert teachers who have over ten years of teaching experience in a private school and two academic professional faculties who are specialised in education. Certain items in the questionnaire were rephrased to be more representative of the anticipated constructs. They have made sure that all questions were clear and understandable. Three expert teachers from each school, a total of six experts, were identified as an evaluation team. Their detailed information is presented in Table 2.

The AHP has been applied in studies with small sample sizes to solicit and determine the hierarchical analysis according to the experts’ opinion (Kil et al., 2016). And from the AHP methodology perspective, the AHP reduces the fatigue of survey and according to Cheng and Li (2001) and Hussain et al. (2016), a small sample size is acceptable. Kil et al. (2016) have mentioned that “several studies reported findings from AHP with small numbers of experts: five respondents (Peterson et al., 1994), five participants (Al-Harbi, 2001), seven participants (Armacost et al., 1994), 18 participants (Mawapanga and Debertin, 1996) and 25 respondents (Huang and Yeh, 2008)”.

### Table 2
The evaluation team detail information

<table>
<thead>
<tr>
<th>School Name</th>
<th>Expert Specialty</th>
<th>Age</th>
<th>Years of Experience</th>
<th>Gender</th>
<th>School Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A</td>
<td>Educational Leadership</td>
<td>63</td>
<td>37</td>
<td>M</td>
<td>All</td>
</tr>
<tr>
<td>School A</td>
<td>Class Teacher (KG)</td>
<td>41</td>
<td>16</td>
<td>F</td>
<td>KG</td>
</tr>
<tr>
<td>School A</td>
<td>Science</td>
<td>39</td>
<td>14</td>
<td>M</td>
<td>Middle</td>
</tr>
<tr>
<td>School B</td>
<td>Assistance Manager</td>
<td>42</td>
<td>16</td>
<td>M</td>
<td>All</td>
</tr>
<tr>
<td>School B</td>
<td>Math and Science</td>
<td>44</td>
<td>18</td>
<td>M</td>
<td>Primary</td>
</tr>
<tr>
<td>School B</td>
<td>Social</td>
<td>37</td>
<td>13</td>
<td>F</td>
<td>High</td>
</tr>
</tbody>
</table>
The expert teachers were identified for several criteria. From each school, one of the experts was leader or a manager who had experience in teaching before, with 15 years of total experience. The other two experts were a male and female field teacher who worked at various levels from kindergarten until high school, with ten years of total experience.

The study was conducted on two highly ranked private schools in Alain City, which is located in the eastern region of Abu Dhabi in the UAE. The researcher decided to test the model in a city that he was aware of and knew each corner of. In addition, he selected schools that he had access to and knew their leader of, and as a result, the researcher tried to get their support in conducting the study. The name of the evaluation team was suggested by the school principal. The interviews and feedback took one month during March 2016. The researcher met each expert teacher individually and explained to them the purpose of the study and how to respond to the questions – in particular, those that applied pairwise comparisons. The quality of responses seemed to be logical and reasonable for the purposes of this research.

In steps 4 and 5, all the collected data in step 3 was compiled. All the data was entered in Microsoft Excel, and the normalised weights of the criteria were computed. The geometric mean and normalised weightage were calculated from the comparison matrix (Sarder et al., 2014). Then, the consistency ratio (CR) of the pairwise comparison matrix was checked to determine whether it was within the required boundary (CR \leq 0.1). Saaty (1990) explained that if CR \leq 0.10, then the inconsistency is acceptable. The CR is the ratio of the consistency index (CI) to the random index (RI), as given below. RI is a random index, as depicted by Table 3.

\[
\begin{align*}
CI &= \frac{\sqrt[n]{x} - n}{n - 1} \\
CR &= \frac{CI}{RI}
\end{align*}
\]

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline
N & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 & 9 & 10 \\
\hline
RI & 0.00 & 0.00 & 0.58 & 0.90 & 1.12 & 1.24 & 1.32 & 1.41 & 1.45 & 1.48 \\
\hline
\end{tabular}
\caption{Random index}
\end{table}

Note: \(N\) is number of factors.

The last step is to calculate the overall (or global) weights. The priority vectors (priority weight) for the main criteria are used to produce global weights for all of the factors. The priority vector (motivation) of main criteria is multiplied by its sub-criteria priority vectors (i.e. pay) to produce the global weight for each sub-criterion. The rank or weight of the sub-criteria is measured by its rank to the weighted parent criteria (Drake et al., 2013).

4 Results and analysis

The purpose of this study is to determine how UAE private school teachers prioritise the factors that influence their job satisfaction. In summary, we need the ranking of all 20 sub-factors. We need to know the priority vectors (priority weight) for the main criteria and sub-criteria and to check whether the inconsistency is acceptable. The AHP
methodology makes it very simple to apply the formulas explained above and produce the results shown in the tables below. The priority weights are given on the right column of Tables 4 through 8. We can also see in Tables 4 through 8 that the consistency ratio ranges from 0.06 to 0.09, which is below the 0.10 threshold that indicates the consistency and acceptance of the pairwise comparison matrix of the main criteria and sub-criteria.

Table 4, which consists of the main criteria, shows that the expert teachers believe 61% of teachers’ satisfaction in the UAE comes from motivation, 21% comes from job characteristics, 13% comes from the style of school leadership and only 5% comes from cultural intelligence. Thus, 82% of the teachers’ satisfaction was affected by motivation and job characteristics factors and only 18% was affected by the style of school leadership and cultural intelligence factors.

Table 4  Pairwise comparison of goal criteria

<table>
<thead>
<tr>
<th>Goal</th>
<th>Motivation</th>
<th>School Leadership Styles</th>
<th>Job Characteristics</th>
<th>Cultural Intelligence</th>
<th>Priority Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation</td>
<td>1.00</td>
<td>6.20</td>
<td>3.80</td>
<td>8.20</td>
<td>0.61</td>
</tr>
<tr>
<td>School Leadership Styles</td>
<td>0.16</td>
<td>1.00</td>
<td>0.53</td>
<td>3.80</td>
<td>0.13</td>
</tr>
<tr>
<td>Job Characteristics</td>
<td>0.26</td>
<td>1.89</td>
<td>1.00</td>
<td>5.80</td>
<td>0.21</td>
</tr>
<tr>
<td>Cultural Intelligence</td>
<td>0.12</td>
<td>0.26</td>
<td>0.17</td>
<td>1.00</td>
<td>0.05</td>
</tr>
</tbody>
</table>

CR value: 0.08 < 0.10 (acceptable)

Table 5, which consists of the motivation sub-criteria, shows that the expert teachers believe that 38% of the UAE teachers’ satisfaction comes from recognition, 23% comes from pay, 13.7% comes from promotion, 13.6% comes from working conditions, 5% comes from responsibility, 3.3% comes from colleagues and only 2.9% comes from job security. Thus, 61% of teachers’ satisfaction was affected by recognition and pay factors, 18% was affected by promotion and working condition factors and only 9% was affected by responsibility, colleagues and job security factors.

Table 6, which consists of the school leadership style sub-criteria, shows that the expert teachers believe that 40% of the teachers’ satisfaction comes from servant leadership, 31% comes from transformational leadership, 17% comes from participative leadership, 9% comes from transactional leadership and only 3% comes from situational leadership. Thus, 71% of the teachers’ satisfaction was affected by servant and transformational leadership style factors, 17% was affected by the participative leadership style factor and only 12% was affected by transactional and situational leadership style factors.

Table 7, which consists of the job characteristics sub-criteria, shows that the expert teachers believe that 52% of UAE teachers’ satisfaction comes from autonomy, 31% from skill variety, 12% from task significance and only 5% from task identity. Thus, 83% of the teachers’ satisfaction was affected by autonomy and skill variety factors and only 17% was affected by task significance and task identity factors.
<table>
<thead>
<tr>
<th>Motivation</th>
<th>Promotion</th>
<th>Responsibility</th>
<th>Recognition</th>
<th>Colleagues</th>
<th>Working Condition</th>
<th>Pay</th>
<th>Job Security</th>
<th>Priority Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion</td>
<td>1.00</td>
<td>8.60</td>
<td>0.20</td>
<td>4.00</td>
<td>0.53</td>
<td>0.33</td>
<td>5.20</td>
<td>0.137</td>
</tr>
<tr>
<td>Responsibility</td>
<td>0.12</td>
<td>1.00</td>
<td>0.14</td>
<td>2.00</td>
<td>0.32</td>
<td>0.21</td>
<td>3.00</td>
<td>0.05</td>
</tr>
<tr>
<td>Recognition</td>
<td>5.00</td>
<td>7.14</td>
<td>1.00</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>8.80</td>
<td>0.38</td>
</tr>
<tr>
<td>Colleagues</td>
<td>0.25</td>
<td>0.50</td>
<td>0.13</td>
<td>1.00</td>
<td>0.25</td>
<td>0.16</td>
<td>0.90</td>
<td>0.053</td>
</tr>
<tr>
<td>Working Condition</td>
<td>1.89</td>
<td>3.13</td>
<td>0.25</td>
<td>4.00</td>
<td>1.00</td>
<td>0.47</td>
<td>5.8</td>
<td>0.136</td>
</tr>
<tr>
<td>Pay</td>
<td>3.03</td>
<td>4.76</td>
<td>0.50</td>
<td>6.25</td>
<td>2.13</td>
<td>1.00</td>
<td>8</td>
<td>0.23</td>
</tr>
<tr>
<td>Job Security</td>
<td>0.19</td>
<td>0.33</td>
<td>0.11</td>
<td>1.11</td>
<td>0.17</td>
<td>0.13</td>
<td>1.00</td>
<td>0.029</td>
</tr>
</tbody>
</table>

CR value: $0.09 < 0.10$ (acceptable)
Table 6  
Pairwise comparison of school leadership style sub-criteria

<table>
<thead>
<tr>
<th>School Leadership Style</th>
<th>Transformational</th>
<th>Transactional</th>
<th>Participative</th>
<th>Situational</th>
<th>Servant</th>
<th>Priority Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transformational</td>
<td>1.00</td>
<td>5.20</td>
<td>3.20</td>
<td>6.80</td>
<td>0.50</td>
<td>0.31</td>
</tr>
<tr>
<td>Transactional</td>
<td>0.19</td>
<td>1.00</td>
<td>0.33</td>
<td>4.80</td>
<td>0.23</td>
<td>0.09</td>
</tr>
<tr>
<td>Participative</td>
<td>0.31</td>
<td>3.03</td>
<td>1.00</td>
<td>6.20</td>
<td>0.35</td>
<td>0.17</td>
</tr>
<tr>
<td>Situational</td>
<td>0.15</td>
<td>0.21</td>
<td>1.00</td>
<td>1.00</td>
<td>0.12</td>
<td>0.03</td>
</tr>
<tr>
<td>Servant</td>
<td>2.00</td>
<td>4.35</td>
<td>2.86</td>
<td>8.33</td>
<td>1.00</td>
<td>0.40</td>
</tr>
</tbody>
</table>

CR value: 0.09 < 0.10 (acceptable)

Table 7  
Pairwise comparison of job characteristics sub-criteria

<table>
<thead>
<tr>
<th>Job Characteristics</th>
<th>Skill Variety</th>
<th>Task Identity</th>
<th>Task Significance</th>
<th>Autonomy</th>
<th>Priority Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill Variety</td>
<td>1.00</td>
<td>5.80</td>
<td>4.20</td>
<td>0.50</td>
<td>0.31</td>
</tr>
<tr>
<td>Task Identity</td>
<td>0.17</td>
<td>1.00</td>
<td>0.27</td>
<td>0.11</td>
<td>0.05</td>
</tr>
<tr>
<td>Task Significance</td>
<td>0.24</td>
<td>3.70</td>
<td>1.00</td>
<td>0.19</td>
<td>0.12</td>
</tr>
<tr>
<td>Autonomy</td>
<td>2.00</td>
<td>9.09</td>
<td>5.26</td>
<td>1.00</td>
<td>0.52</td>
</tr>
</tbody>
</table>

CR value: 0.06 < 0.10 (acceptable)

Table 8, which consists of the cultural intelligence sub-criteria, shows that expert teachers believe that 56% of the UAE teachers’ satisfaction comes from behavioural CQ, 26% from motivational CQ, 13% from metacognitive CQ and only 5% from cognitive CQ. Thus, 82% of the teachers’ satisfaction was affected by behavioural and motivational CQ factors and only 18% was affected by metacognitive and cognitive CQ factors.

Table 8  
Pairwise comparison of cultural intelligence sub-criteria

<table>
<thead>
<tr>
<th>Cultural Intelligence</th>
<th>Metacognitive</th>
<th>Cognitive</th>
<th>Motivational</th>
<th>Behavioural</th>
<th>Priority Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metacognitive</td>
<td>1.00</td>
<td>3.80</td>
<td>0.35</td>
<td>0.21</td>
<td>0.13</td>
</tr>
<tr>
<td>Cognitive</td>
<td>0.26</td>
<td>1.00</td>
<td>0.19</td>
<td>0.12</td>
<td>0.05</td>
</tr>
<tr>
<td>Motivational</td>
<td>2.86</td>
<td>5.26</td>
<td>1.00</td>
<td>0.33</td>
<td>0.26</td>
</tr>
<tr>
<td>Behavioural</td>
<td>4.76</td>
<td>8.33</td>
<td>3.03</td>
<td>1.00</td>
<td>0.56</td>
</tr>
</tbody>
</table>

CR value: 0.07 < 0.10 (acceptable)

Table 9 shows the ranking of all 20 sub-factors. The global weights are calculated by multiplying the local weight of the main criteria with the local weights of its sub-criteria. Each factor is then given the deserved rank. The first ranked factor (recognition) has the highest global weight, whereas the last ranked factor (cognitive CQ) has the lowest global weight.

Figure 3 shows all 20 sub-factors, organised in descending order from the most important to the least. The three most important factors accounted for between 10 and 25% of teachers’ satisfaction, which were falling in the high range: recognition (23%), pay (14%) and autonomy (11%). These three factors together account for 48% of teachers’ satisfaction. Four factors accounted for between 5 and 10% of teachers’ satisfaction, which were falling in the middle range: promotion (8%), working condition...
(8%), skill variety (7%) and servant leadership style (5%). These four factors account for 28% of teacher’s satisfaction. The remaining factors only accounted for between 0 and 5% and thus fell in the low range.

Table 9 Priorities ranking for the criteria and the sub-criteria

<table>
<thead>
<tr>
<th>Alternatives</th>
<th>Main Criteria</th>
<th>Local Weight</th>
<th>Sub Criteria</th>
<th>Local Weight</th>
<th>Global Weight</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>UAE Private School</td>
<td>Motivation</td>
<td>0.61</td>
<td>Promotion</td>
<td>0.137</td>
<td>0.084</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Responsibility</td>
<td>0.05</td>
<td>0.031</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Recognition</td>
<td>0.38</td>
<td>0.232</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Colleagues</td>
<td>0.033</td>
<td>0.020</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Working Condition</td>
<td>0.136</td>
<td>0.083</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Pay</td>
<td>0.23</td>
<td>0.140</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Job Security</td>
<td>0.029</td>
<td>0.018</td>
<td>14</td>
</tr>
<tr>
<td>School Leadership Styles</td>
<td>Transformational</td>
<td>0.13</td>
<td>Transformational</td>
<td>0.31</td>
<td>0.040</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Transactional</td>
<td>0.09</td>
<td>0.012</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Participative</td>
<td>0.17</td>
<td>0.022</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Situational</td>
<td>0.03</td>
<td>0.004</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Servant</td>
<td>0.40</td>
<td>0.052</td>
<td>7</td>
</tr>
<tr>
<td>Job Characteristics</td>
<td>Skill Variety</td>
<td>0.22</td>
<td>Skill Variety</td>
<td>0.31</td>
<td>0.068</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Task Identity</td>
<td>0.05</td>
<td>0.011</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Task Significance</td>
<td>0.11</td>
<td>0.024</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Autonomy</td>
<td>0.52</td>
<td>0.114</td>
<td>3</td>
</tr>
<tr>
<td>Cultural Intelligence</td>
<td>Metacognitive</td>
<td>0.05</td>
<td>Metacognitive</td>
<td>0.13</td>
<td>0.007</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cognitive</td>
<td>0.05</td>
<td>0.003</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Motivational</td>
<td>0.26</td>
<td>0.013</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Behavioural</td>
<td>0.56</td>
<td>0.028</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>1.00</td>
<td>Total</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3 Priorities ranking of all factors from highest to lowest
5 Discussion, conclusion and implications

Ideally, we would compare the results with those of similar studies in the region. However, we could not find any previous empirical or conceptual studies in the Middle East and North Africa (MENA) region regarding the prioritisation of factors influencing teachers’ job satisfaction. This empirical study is the first to investigate teachers’ job satisfaction in relation to the four main factors together in one model. It is also the first research to investigate teachers’ job satisfaction using the AHP method. The author found only one study that prioritised some factors of motivation, which is one of the main criteria, in relation to teachers’ job satisfaction using the AHP method. The other three main criteria have not been investigated using the AHP method before.

It is not a surprise that 61% of teachers’ satisfaction in the UAE comes from motivation, because satisfaction and motivation are related concepts. Peretomode (1991) mentioned, as cited by Ololube (2004), that “the two terms are related but are not synonymous”. However, what is really surprising is that the CQ scored very low, at only 5%, in a country that has such a diverse culture as the UAE with over 200 nationalities living there. Perhaps the more diverse their culture, the more people become aware of other cultures; therefore, they generally behave in manners that are culturally sensitive.

The high rank of the motivation factor in this study could mean that teachers are more concerned by that factor. The most important motivation factors were recognition and pay. Teachers in the UAE need to be appreciated, valued and treated fairly. They don’t want to be neglected and ignored. Education authorities in the UAE should first determine what their teachers really value and appreciate. They should then develop appropriate policies especially reward policies, and as a third step, they should enforce these policies at all levels (Danish and Usman, 2010). Diaz-Serran and Vieira (2005) explained that “low pay workers report a lower level of job satisfaction when compared with their higher paid counterparts in most of the countries”. Concern about pay could indicate that there is an inequality in salaries among schools teachers, especially those in the same school. It is almost inevitable that teachers will discover their colleagues’ salaries, so if the differences are not perceived as fair, this may lead to lower motivation or teacher attrition.

It is not surprising that servant leadership was the most preferred leadership style. Servant leadership consists of features and characters that are similar to other leadership styles but has its own focus. Servant leadership has flowers, or rather ‘features’, from different gardens, or leadership styles. According to Van Dierendonck (2011), servant leadership overlaps with seven other leadership styles: self-sacrificing leadership, spiritual leadership, empowering leadership, level 5 leadership, ethical leadership, authentic leadership and transformational leadership. It is also not surprising to see transformational leadership as the second most important style because, as Washington (2007) said, managers perceive servant leadership as they perceive transformational leadership.

Autonomy was the most important job characteristic factor, and skill variety ranked second. This fact is supported by Naqvi et al. (2013): “Job autonomy is considered as a chief characteristic of work and [is] possibly the most extensively studied job characteristic.” Pearson and Moomaw (2005) said, “If teachers are to be empowered and exalted as professionals, then like other professionals, teachers must have the freedom to
 prescribe the best learning plan for their students as doctors/lawyers prescribe the best treatment for their patients/clients; and the freedom to do such has been defined by some as teacher autonomy. ” Teachers need a space for creativity in teaching and for passing the right message to students. Skill variety is the utilisation of various skills and abilities. Newstrom and Davis (1997) argued that human resources should be trained and not simply used.

It is also not surprising that behavioural CQ was the most preferred cultural intelligence factor because teachers in the UAE don’t want their leaders to only know their culture, but they also want their knowledge to be reflected in their actions. They need to see leaders react to situations correctly, according to their cultural understanding. In fact, their knowledge of the host culture without appropriate actions is useless. The motivational CQ was the second most important cultural factor because teachers want their leaders to guide them in difficult cultural situations.

In fact, many studies have tried to determine the reasons for high teacher turnover and low teacher retention rates with the objectives of identifying the origin of the issue and finding appropriate solutions (Scheopner, 2010; Hom et al., 2012; Finster, 2013). Resolving the issue of teachers’ turnover and improving teachers’ retention is a challenging task that falls on the shoulders of school leaders (Ngotngamwong, 2012) and the UAE education authority. Recognition, pay and autonomy scored as teachers’ highest concerns according to the final ranking table. The UAE education authority and school leaders need to pay attention to these insights in order to address teachers’ concerns. The turnover phenomenon does not exist only in the UAE but also worldwide. There is a high cost that is linked to this phenomenon. And perhaps the effect on the next generation is more important than the materialistic cost. According to Weston (2014), the National Bureau of Educational Research reported:

“Students assigned to high value-added teachers are more likely to attend college, attend higher-ranked colleges, earn higher salaries, live in higher SES neighbourhoods, and save more for retirement. They are also less likely to have children as teenagers.” (Weston, 2014, p.4)

The objective of any education authority is to improve the education quality in all types of schools, whether private or public. The UAE education authority and the regional education authorities, such as the Dubai education authority, need to increase the level of satisfaction among private school teachers in order to reduce the high turnover rate. To do this effectively, they must investigate why their teachers need recognition and are unhappy with their pay. They need to evaluate all the factors that influence teachers’ job satisfaction, not only the ones mentioned above, and try to improve them. The authorities should also consider the importance of autonomy while redesigning teachers’ jobs.

Finally, this study has not been without its limitations, which also provide clear opportunities for future research. A similar study could be repeated in other MENA countries and compared to the current original study. Also, the current work should be conducted in other major cities in the UAE, such as Dubai and Abu Dhabi, and should include more alternatives such as public schools. The existing model could also be enhanced by adding new criteria and sub-criteria such as organisation culture.
References


DSIB (2013) Private Schools Landscape in Dubai 2012-2013, Knowledge and Human Development Authority, Dubai, UAE.

DSIB (2014) Private Schools Educational Landscape 2013-2014, Knowledge and Human Development Authority, Dubai, UAE.


Prioritisation of factors influencing teachers’ job satisfaction in the UAE


