HUMAN RESOURCES MANAGEMENT POLICIES AND PRACTICES SCALE (HRMPPS): USING CONFIRMATORY FACTOR ANALYSIS (CFA)

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Abstract—Given the strategic relevance of Human Resources Management (HRM) in financial institutions (Bank) and the lack of scientific instruments to measure employees’ perceptions about policies and practices of (HRM), So, this study aimed to validate the Human Resources Management Policies and Practices Scale (HRMPPS) to achieve this goal, we used a conformational factor analysis (CFA) through AMOS software. Employees from (Jumhouria bank) in Libya composed a sample of 381 employees. Construct validity was provided through convergent and discriminant analyses (AVE >sv). In addition to, the model was generated showing good fit. The contributes of this study will be to the scientific production in the area of Human Resources Management since (HRMPPS) can be also used not only in relational studies but also as an evaluation instrument by managers who wish to improve their employees’ well-being as well as organizational outcomes.

Keywords—Recruitment and Selection policy, Involvement Policy, Performance Appraisal Policy, Compensation and Rewards policy, Training and Development Policy.

I. INTRODUCTION

Due to the importance of Human Resource Management (HRM) in organizations, and the lack of scientific instruments for measuring how employees perceive policies and practices of HRM, the current study aimed to focus its investigation on developing and validating a Human Resource Management Policies and Practices Scale (HRMPPS). As pointed out by Huselid (1995), there is a very much limited research that measures the policies and practices of HRM, which applies to today’s situation. In this regards, the review of previous research shows that there are some indexes of HRM practices which were identified by the advocates of the high commitment approach (Guest, 1998; Pfeffer, 2005). The only scales which were developed and found in previous related studies are the High-Performance Work Practices proposed and validated by Huselid (1995). This scale encompasses 13 items and its Cronbach’s alpha value is.67. The second scale, the Perception of Personnel Management Policies Scale (PPMPS) was developed and validated by Demo (2008). It consists of 19 items which are distributed across four factors. Based on its validation, the scale showed a Cronbach’s alpha above .70. Thus, there are only five HRM policies that constitute the PPMPS: Recruitment and Selection policy, Involvement Policy, Performance Appraisal Policy, Compensation and Rewards policy, Training and Development Policy. Within the shortage of scales that are scientifically valid and that can be used for measuring the perception of policies and practices of HRM among employees, the PPMPS has been viewed as the only good option that can be used for this particular purpose (e.g. Rubino, Demo, &Traldi, 2011). Although this scale seems to be good for measuring this, there is still a need for developing and validating more comprehensive instruments that are more reliable to measure such HRM policies and practices are demanded. Therefore, the study reported in the current paper is an empirical attempt that was made as a response to the abovementioned need and thereby, as an answer to the following question: Can a comprehensive and highly-reliable scale for measuring employees’ perception of the HRM policies and practices be developed and validated using a conformational factor analysis (CFA)? Furthermore, if the HRMPPS comprises good psychometric parameters and is proved to be of stability in other samples, this instrument would be seen more reliable and more comprehensive than other available instruments which are normally used in relational research investigating the field of HRM in organizations. This instrument has been also reported to be possible for use and investigation of managerial practice besides its application as a diagnosis that aims at enhancing employees’ well-being at work and optimizing organizational results.

First, the paper provides a review of previous related research on management of human resources, including its strategic role in organizations, and policies used for managing human resources along with their constitutive definitions. Following this is a description of the methods used in the present study, including the research procedures adopted and followed in developing the proposed scale, validating it using a different sample in order to be able to test the generalizability of the scale and besides the conformational factor validation by using structural equation modeling (SEM). The paper also describes the construct validity which is provided through a convergent and discriminant analysis. Finally, the paper presents and discusses the main results and
provides the conclusions, including the contributions of the study to previous research and proposal of a research agenda.

II. THEORETICAL BACKGROUND

Organizational capacities are viewed as the results generated from the processes of re-defining and re-distributing the practices, professionals and functions of HRM. Previous researchers (Guest, 1987; Storey, 1995; Legge, 2006; Bohlander & Snell, 2009) pointed out at the possibility of observing the strategic and relevant role of people in organizations. Therefore, the researchers emphasize the need for cohesive and coherent theories which are aligned to both planning and organizational strategy to properly sustain HRM.

This indicates that policies and practices of HRM are likely to vary among organizations, but they need to be aligned with business strategy (Chênevert & Tremblay, 2009). According to Boxall and Purcell (2000), the impact of the person’s HRM practices relies upon both the nature of the impact of other HRM practices as well as the business strategy. It was also argued by Lim (2012) that the external business environment strongly influences the activities and practices of HRM.

Approaching this from the strategic HRM perspective, there is a mutual reinforcement between both policies and practices, and both strongly affect the organizational goals (Morris & Snell, 2010). Furthermore, the logic of skills being developed according to the requirements of business processes serve as guidance for policies of HRM (Serpell & Ferrada, 2007). In other words, they provide tools for capturing and communicating the strategic vision and objectives of the organization in clear, easily understood terms (Vakola, Soderquist, & Pratasco, 2007).

In this context, the aim of proposing and developing scales that permit an estimation of how HRM policies are perceived is identification of the degree of the applicability of such developed scales to a variety of organizations and their alignment with the strategy of a given organization. A developed scale can be effective or efficient when it is capable of translating the association between HRM policies and the business strategy (Legge, 2006).

It is a must for HRM not to be relegated to a traditional supporting role anymore. However, it is a must that HRM constitutes up an essential competence so that it can reach or achieve the aims at the organizational and individual levels. This is important especially because of the value of human resources as a source of competitive advantage. For instance, based on the review of research by Uysal (2012), the major HRM policies such as staffing, training, performance evaluation and compensation are strongly and positively as well as significantly correlated. Such results are of importance for obtaining a better understanding of the inter-relationships between HRM practices so that the effect of the HR systems on employee-based organizational outcomes can be enhanced (G. Demo, E. R. Neiva, I. Nunes, and K. Rozzett, 2012). In such context, organizations have shifted to the perspective of competitive advantage creation. As a result, there themes which are relevant to the areas of organizational strategy and theory that converge, thus underlying comprehensive implications for HRM and putting its primary function under discussion. As pointed out by the Resource Based View by Barney (1991), creating such competitive advantages normally relies upon on prerequisites that may be closely relevant to the HRM area because these resources should be valuable and rare to the organization. They may never be imitated or substituted, and the ability of the organization to exploit them is a must. Beauvallet and Houy (2010) emphasized the need for supporting the key mechanism and decisive variable which would be able to provide justifications of the direct relation between the competitive advantages of companies which are alleged as lean enterprises, or the ones that usually practice a lean management and HRM.

Concerning the definition of the term of organizational policy, it refers to the principles which are set up or developed for leading a company. It is also known as a general course of action of developing joint or collective practices in a constructive way that aim at reaching or achieving particular objectives (Singar & Ramsden, 1972). Thus, HRM policies aim at defining the attitude, expectations and values of the organization related to treating in the individuals, and therefore, they still function as point of reference for developing the organizational practices and for making decisions people in addition to resulting in equal treatment among individuals (Armstrong, 2009).

For the present study, we use this term of HRM policy to refer to any proposals which are organizationally articulated within the theoretical and practical constructions of human relations and which are intended to achieve the wanted outcomes. Thus, HRM policies define the theoretical as well as the practical referential established for making achievement of the objectives and purposes of that organization possible. In other words, they function as thoughts that guide the HRM area.

Results of some previous studies have showed that HRM policies are positively related to variables such as commitment, productivity, profitability and quality (Guest, 1987; Schneider & Bowen, 1985; Ulrich, Halbrook, Meder, Stuchlik, & Thorpe, 1991). In addition, the results obtained by Combs, Liu, Hall, and Ketchen (2006) from a meta-analysis confirmed positive relationships between practices of human resources and organizational outcomes, and such relationships were also found to be stronger in manufacturing companies than they were in service companies.
In the same vein, other previous studies reported policies and practices of HRM had favorable effect on the performance of organizations (Boselie, Dietz, & Boon, 2005; Menezes, Wood, & Geladi, 2010; Subramony, 2009). The results reported by Guest and Conway (2011) also support the evidence that more HRM practices are conducive or lead to higher effectiveness of HR and a higher range of performance outcomes.

In a study by ALDamoe, Yazam and Ahmid (2012), it was concluded that the retention of employee probably plays a role in mediating the relationship between HRM practices and organizational performance. Moreover, how employees perceive HRM policies and practices has its influence on discretionary work effort as well as co-worker assistance (Frenkel, Restubog, & Bednall, 2012). However, the efficiency and acceptance of HRM policies are relevant to the organizational values and culture (Stone, Stone-Romero, & Lukaszewski, 2007). To sup up, HRM policies play an important role in developing, appreciating and retaining talents. They also foster employees’ commitment or accountability, which motivates them to act and work or perform their work in a more flexible and adaptive way and pushes them to move towards excellence in organizations (Legge, 2006). Therefore, planning an entrepreneurial strategy should take into account that such strategy that aims at producing and supplying the added-value products and services should address developing and implementing HRM policies that will result in better qualifications of employees in a given organization (Legge, 2006).

III. METHOD

A. Respondents

The respondents of this study consist of all employees in the Jumhouria bank and its branches in the city of Tripoli Libya, totaling (3100) employees. Initially, 450 samples were preliminary determined to conduct our analysis, while the returned questionnaires valid for the analysis were 381 questionnaires, which all conformed to the requirements of the analysis.

B. Confirmatory Factor Analysis Units

In order to test the validity constructs and the research hypotheses the Structural Equation Modeling (AMOS) model-fitting program is used. The model fit is evaluated by using four indices of the model goodness-of-fit: (1) the comparative fit index (CFI) (2) the chi-square statistics McDonald and Marsh (1990); (3) (RMSEA) between (0.08) to (0.10) indicates a mediocre fit Browne and Cudeck (1993) and would not employ a model a RMSEA greater than 0.1 (>0.1) (MacCallum et al., 1996). (4) the minimum value of the discrepancy between the observed data and the hypothesised model divided by degrees of freedom (CMIN/DF) or normed chi-square. Marsh and Hocevar (1985);

C. Construct Validity

According to Hair, Black, Babin, Anderson and Tatham (2006) the employment of factor loading composite reliability (CR) and average variance extracted (AVE) to determine the convergent validity if it equals to or greater than 0.5 (≥0.5) and the composite reliability equals to or greater than 0.7 (≥0.7) if were recommended by Hair et al.(2006). Also, (AVE) reading values should be greater than 0.5 (≥0.5) (Fornel and Larker, 1981).

IV. RESULTS

A. The Modified Model

Figure axis labels are often a source of confusion. Figure (1) shows the results of the (CFA) for the proposed model for measuring (HRMPPS), it is evident that the model is free of the illogical correlation since it reaches or exceeds the integer (1). This also indicates that there is not any problems in the (CFA) used for testing the validity of this model that comprises five factors. As seen in Figure (1) and Table (1), the indicators of agreement between the model and the data exceeded the T-value, thus, implying that there is disagreement between (HRMPPS), and the data of the sample since the value of the Chi-Square was (918.112) and the degree of freedom was (199), and the level of significance was (P=0.000). In addition, we can see that the normative Chi-Square (Chi-Square /degrees of freedom) was (4.614) being below than (5), and the value of relative strength index (CFI) was (0.902) big than (0.90). The results also show that the value of the index (Rmsea) error square was (0.098) being higher than (0.080). Due to this contradiction between the model and the data, it was necessary to modify the (HRMPPS), model in this study.

CFA: Confirmatory Factor Analysis

In order to modify this model, we followed was deleting (I4) and (TD6).And also linking some of the items according between (RS41) with (RS5) and linking (CR3) with (CR4).The following figure 2 shows the (HRMPPS) model with five- factors after the amendment.
Table 1: index value of (HRMPPS) model before and after modification

<table>
<thead>
<tr>
<th>indicators consistency</th>
<th>index value before modification</th>
<th>index value after modification</th>
<th>Function value on the quality of conformity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cron</td>
<td>918.1 1.12</td>
<td>592.3 3.36</td>
<td>---</td>
</tr>
<tr>
<td>dT</td>
<td>199</td>
<td>158</td>
<td>---</td>
</tr>
<tr>
<td>P</td>
<td>0</td>
<td>0</td>
<td>Non</td>
</tr>
<tr>
<td>Cron/SR</td>
<td>4.614</td>
<td>3.179</td>
<td>Less than (5)</td>
</tr>
<tr>
<td>CFI</td>
<td>0.902</td>
<td>0.947</td>
<td>More (0.901)</td>
</tr>
<tr>
<td>Rmsea</td>
<td>0.098</td>
<td>0.076</td>
<td>Less than (0.00)</td>
</tr>
</tbody>
</table>

B. Construct Validity and Reliability for Recruitment and Selection

In the present study, lodging for the parameters factor ranged from 0.64 to 0.90, with all parameters were above 0.5 (=0.5). The reliability was greater than 0.7 (=0.7), it ranged from 0.853 to 0.865. In addition, the AVE reading was 0.64 where the value was greater than 0.5 (=0.5). Consequently, all results fulfilled the AVE, and the reliability discriminant validity of the model. In general, the first factor of the (HRMPPS), model was fit and fulfilled the construct as depicted in Table (2).

Table 2: Construct Validity and Reliability of (HRMPPS) model- Recruitment and Selection

<table>
<thead>
<tr>
<th>factor</th>
<th>CMIN</th>
<th>DF</th>
<th>P</th>
<th>CMIN/DF</th>
<th>CFI</th>
<th>Rmsea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor1</td>
<td>918.1</td>
<td>199</td>
<td>0.000</td>
<td>4.614</td>
<td>0.902</td>
<td>0.098</td>
</tr>
<tr>
<td>Factor2</td>
<td>592.3</td>
<td>158</td>
<td>0.000</td>
<td>3.179</td>
<td>0.947</td>
<td>0.076</td>
</tr>
</tbody>
</table>

C. Construct Validity and Reliability for Involvement

In the current study, the lodging for the parameters factor ranged from 0.79 to 0.86, with all parameters were above 0.5 (=0.5). And the reliability was greater than 0.7 (=0.7), it ranged from 0.829 to 0.834. In addition, the AVE reading was 0.54 where the value was greater than 0.5 (=0.5). Consequently, all results fulfilled the AVE, and the reliability discriminant validity of the second factor. In general, the second factor of the (HRMPPS), model was fit and fulfilled the construct as depicted in Table (3).

Table 3: Construct Validity and Reliability of (HRMPPS) model- Involvement

<table>
<thead>
<tr>
<th>factor</th>
<th>CMIN</th>
<th>DF</th>
<th>P</th>
<th>CMIN/DF</th>
<th>CFI</th>
<th>Rmsea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor1</td>
<td>918.1</td>
<td>199</td>
<td>0.000</td>
<td>4.614</td>
<td>0.902</td>
<td>0.098</td>
</tr>
<tr>
<td>Factor2</td>
<td>592.3</td>
<td>158</td>
<td>0.000</td>
<td>3.179</td>
<td>0.947</td>
<td>0.076</td>
</tr>
</tbody>
</table>

D. Construct Validity and Reliability for Performance Appraisal

In this study, the lodging for the parameters factor ranged from 0.69 to 0.98, with all parameters were above 0.5 (=0.5). The reliability was greater than 0.7 (=0.7), it ranged from 0.867 to 0.881. In addition, the AVE reading was 0.81 where the value was greater than 0.5 (=0.5). Consequently, all results fulfilled the AVE, and the reliability discriminant validity of the third factor. In general, the third factor of the (HRMPPS), model was fit and fulfilled the construct as depicted in Table (4).

Table 4: Construct Validity and Reliability of (HRMPPS) model- Performance Appraisal

<table>
<thead>
<tr>
<th>factor</th>
<th>CMIN</th>
<th>DF</th>
<th>P</th>
<th>CMIN/DF</th>
<th>CFI</th>
<th>Rmsea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor1</td>
<td>918.1</td>
<td>199</td>
<td>0.000</td>
<td>4.614</td>
<td>0.902</td>
<td>0.098</td>
</tr>
<tr>
<td>Factor2</td>
<td>592.3</td>
<td>158</td>
<td>0.000</td>
<td>3.179</td>
<td>0.947</td>
<td>0.076</td>
</tr>
</tbody>
</table>

E. Construct Validity and Reliability for Compensation and Rewards

In the present study, the lodging for the parameters factor ranged from 0.70 to 0.86, with all parameters were above 0.5 (=0.5). The reliability was greater than 0.7 (=0.7), it ranged from 0.875 to 0.881. In addition, the AVE reading was 0.63 where the value was greater than 0.5 (=0.5). Consequently, all results fulfilled the AVE, and the reliability discriminant validity of the fourth factor. In general, the fourth factor of the (HRMPPS), model was fit and fulfilled the construct as depicted in Table (5).
Table 5: Construct Validity and Reliability of (HRMPPS) model - Compensation and Rewards

<table>
<thead>
<tr>
<th>Role code</th>
<th>Item</th>
<th>Reliability</th>
<th>Average Extracted Variance (AVE)</th>
<th>V.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRF</td>
<td>Training provided to ensure that staff are adequately informed about remuneration, benefits, etc.</td>
<td>0.87</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRF</td>
<td>The organization's compensation practices are supported by policy and procedures.</td>
<td>0.81</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRF</td>
<td>The organization's compensation practices are supported by policy and procedures.</td>
<td>0.81</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRF</td>
<td>The organization's compensation practices are supported by policy and procedures.</td>
<td>0.81</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRF</td>
<td>The organization's compensation practices are supported by policy and procedures.</td>
<td>0.81</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6: Construct Validity and Reliability of (HRMPPS) model - Training and Development

<table>
<thead>
<tr>
<th>Role code</th>
<th>Item</th>
<th>Reliability</th>
<th>Average Extracted Variance (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRD</td>
<td>The organization provides training and development opportunities.</td>
<td>0.87</td>
<td>0.69</td>
</tr>
<tr>
<td>TRD</td>
<td>The organization provides training and development opportunities.</td>
<td>0.87</td>
<td>0.69</td>
</tr>
<tr>
<td>TRD</td>
<td>The organization provides training and development opportunities.</td>
<td>0.87</td>
<td>0.69</td>
</tr>
<tr>
<td>TRD</td>
<td>The organization provides training and development opportunities.</td>
<td>0.87</td>
<td>0.69</td>
</tr>
</tbody>
</table>

V. FORNELL - LARCKER

In order to test the predictive validity (discrimination) among the dimensions of the (HRMPPS), the researchers used Fornell - Larcker Criterion, considering that the AVE for each dimension of the main scale would be higher than the SV of all relations or links. Table (7) shows the results obtained from this test concerning the relations among the five factors of the (HRMPPS) model.

Table 7: Covariance and the contrast between the extracted five-factor matrix (HRMPPS) models

As seen in Table (7), the SV among the five dimensions is the result of multiplication of the correlation value by itself, and from the results in the same table regarding the AVE, it is evident that the AVE for every dimension of the (HRMPPS) model was higher than the SV among all the dimensions. Such result suggests that (HRMPPS) model met Fornell - Larcker Criterion and achieved the required predictive validity among its five investigated dimensions.

CONCLUSION

This paper achieved the main goal of the study which was to test the validity of a proposed model for measuring (HRMPPS) in financial institutions (commercial banks) through the use of a CFA as a means to structural equation modeling (SEM-AMOS). This was proposed and developed based on the identified measurement dimensions of the main factor (HRMPPS) in previous studies (Gisela Demo, Elaine Rabelo Neiva, Iara Nunes and Kesia Rozzett, 2012). The results obtained in the present study especially regarding the validity of the measurement indicated the constructed model in its five factors are a reliable and valid measurement tool that can be used in measuring the (HRMPPS) within banking institutions. The model achieved the required convergent validity or the AVE, among its five factors which even exceeded (0.50). The study also proved that the model achieved the required divergent validity or SV among its five factors where the AVE was higher than the SV for all five factors, a result that was in agreement or consistent with Fornell - Larcker Criterion.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This research has limitations and consequently recommendations for future studies. Our proposal represents an attempt to build and test a conceptual framework of HRM policies and practices. Then, a first limitation is that the present findings are therefore indicative rather than conclusive. It would be useful to further assess the generalizability of the HRMPPS to other business environments such as Arab, European and Asian countries. Moreover, with more replicative and creative research, a more comprehensive conceptual framework related to HRM policies and practices can be developed in the future. Finally, the findings found here are not intended to be conclusive or limiting but offer a useful starting point from which further theoretical and empirical research on HRM policies and practices can be built.

REFERENCES


