CONSTRUCT VALIDATION OF JOB CHARACTERISTICS IN AN ASIAN CONTEXT: AN EVIDENCE AMONG ACADEMICIANS IN PRIVATE UNIVERSITIES IN PAKISTAN

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ABSTRACT

This study aimed at validating the job characteristics construct among academicians in twenty-one private universities in Pakistan. The population in this research is all the academicians (professors, associate professors, assistant professors, lecturers) working in the private universities of Pakistan. The choice of 21 private universities located in the Punjab/Islamabad Capital Territory out of total 43 universities in Pakistan was based on Purposive sampling technique. Moreover, Partial Least Square (SmartPLS 3) used to analyses the data for validating the job satisfaction scale. Specifically, the results demonstrated that measures for job characteristics are valid and acceptable based on their factor estimates. All validity indicators including items' loadings, composite reliability, and average variance extracted (AVE), and square roots of the AVE have demonstrated high coefficients. This research aimed at assessing the construct validity of job characteristics among academicians in an Asian context (Pakistan). Moreover, for the first time this study seeks to empirically validate job characteristics as "Job Complexity" within the context of private higher education industry. This research provides preliminary evidence that different validated constructs may be of use to Pakistan's managers in the private higher education to address critical human resources problems facing managers and human resources practitioners.

Keywords: Job characteristics; Construct validity; Exploratory Factor Analysis (EFA); Partial Least Square (PLS).

1. INTRODUCTION

Insight into the job content and job context factors is widely considered as the most important means to motivate employees (Park, 2017). In today's world the number one problem of any

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business entity is how to motivate employees (Malik & Naeem, 2009; Malik & Naeem, 2009). In the effort of improving the job performance of employees, many research scholars and practitioners have argued in the literature of management sciences that job enrichment can play one of the most important roles in motivating employees at all levels (Hackman & Oldham, 1980; Morgeson & Campion, 2003; Awamleha & Fernandes, 2011; Park, 2017). Researchers agree that elements of work design can influence individual and organizational efficiency (Bhatti, Shah, & Shaikh, 2012). In higher education sector in Pakistan, job characteristics influence or give birth to different attitudes and behavior with respect to job satisfaction, organizational commitment and job performance (Chaudhry, Maurice, & Haneefuddin, 2015; Usman, & Jangraiz, 2015).

Work design research and theories are taking new directions in the wake of changing technologies, communication, and globalization, although some scholars in management research having the view that a lot of research on job design has solved all problems (Grant & Parker, 2009). However, this conclusion is based on research carried out in the advanced economies of the Western world. No such conclusion has been drawn in Asian countries, especially in a country like Pakistan where research on job design is at embryonic stages (Ghazali et al 2007; Ahmed, 2010; Ghani & Deshpande, 2010). Therefore, this research aimed at assessing the construct validity of job characteristics among academicians in a newer context (Pakistan) and within the context of private higher education industry of Pakistan. Thus help to demonstrate the appropriateness and robustness of job characteristics construct (Johari et al. 2009)

There are many studies that have failed to find five factor solutions for job characteristics (Dunham, 1976; Hunter, 2006; Fried & Ferris, 1986). The factor structure of the job characteristics varies from industry to industry and country to country in Western and Asian context (Judge et al., 2000; Johari & Yahya, 2009; Hunter, 2006; Morris & Venkatesh, 2010). In a study aimed to explore the mediating role of perceived organizational support (POS) on the relationship between job crafting and job satisfaction, and participants were 263 teachers from public schools in the South of Italy. It was admitted that job crafting expanded the perspective of job design (Ingusci et al., 2016). Therefore, it is academically and practically valid to explore and validate job characteristics in Pakistan's context as well. The study seeks to gather evidence or findings in Pakistan's context based on following research questions: (i) what is the factorial structure of job characteristics construct in the private higher education industry in Pakistan's context? (ii) Do measures of the job characteristics construct have good validity properties to be used for future studies in Pakistan? This study examined the construct validity and psychometric properties of the job characteristics instrument. Specifically, the objectives of the study include: (i) to assess the structure of the job characteristics construct using the responses of academicians working in private universities in Pakistan; (ii) to assess validity properties including content validity, convergent and discriminant validity of the job characteristics construct using respondents from the private higher education industry in Pakistan.

This paper is organized into seven sections. First section presents general introduction of the topic. Second section presents different conceptual analysis and developments in the literature review of job characteristics construct. A third section discusses the methodological techniques and procedures employed in the study. Fourth section presents results, while fifth, sixth and seventh sections presents theoretical/managerial implications and conclusion.

2. LITERATURE REVIEW

2.1.   *Job Design*

Job design is the reorganization of the job to improve the proficiency of the business and improve employees' attitudes like job satisfaction etc. A dull and lackluster job causes problems for employee's attitudes and performance, so employers focus on the employees' point of view in performing different tasks. Job design cannot prevail over the fact that no job is a great job. However, so far it is impossible for researchers to stop developing a theory of job characteristics. Job design focuses on employees' freedom of decision making, creativeness, significance of the job, and variety of skills applied to the job, and is part of the totality of the job (Campbell et al., 1990; Johari et al, 2009; Isfahani, Bahrani, & Torki, 2013).

2.2.   *Job Characteristics Model (Oldham & Hackmann, 1976, 1980)*

Job Characteristics Theory (Hackmann & Oldham, 1976, 1980) developed rationale for relationships between job characteristics and employees' responses at work. The theory posits the task conditions which can produce positive outcomes on the part of employees. There are five job characteristics that initiate three psychological states which in turn give birth to different attitudes and behaviors. The theory also includes individual differences, as growth needs strength, knowledge and skills, and contextual satisfaction as moderators of relationships between job characteristics and outcome variables. Hackmann & Oldham (1976, 1980) and other researchers have defined five job characteristics as follows:

2.2.1.   *Skill Variety*

Skill variety has been defined as the degree to which a job requires a variety of different activities in carrying out the work, involving the use of a number of different skills and talents (Turner & Lawrence, 1965; Hackman & Oldham, 1976; 1980). Whenever employees are given an opportunity to make best use of their talents and skills, they would consider the job as a way of gratifying their aspirations and goals (Liye, 2009; Bremner & Carriere, 2011; Agarwal, & Gupta, 2018). Skill variety was also defined as set of skills and talents a job incumbent uses to perform his or her job (Jex, 2002; Johari et al., 2011). The Chief Executive's job is the best example of using a variety of skills such as: quantitative skills, interpersonal skills, and analytical skills, preparing budgets, resolving conflicts and developing long term strategies (Jex, 2002).

When a person can do a number of things on a job, it reduces turnover intentions, can result in low absenteeism and higher job performance (Griffen, 1993). It was found that self-efficacy has a strong positive relationship with skill variety (Judeh, 2012). Skill variety has been taken and perceived as a complex part of a job that allows it to be performed with satisfaction (Hackman & Oldham, 1975; 1980; Unuvar, 2006; Asash et al., 2012). Skill variety is mostly studied using three items of skill variety namely: doing many different things on the job, using a number of complex or high-level skill activities and the complex, non-repetitive character of the job (Morris and Venkatesh, 2010).

2.2.2. Task Identity

Task identity has been defined in the literature as the degree to which the job requires the completion of a whole, identifiable piece of work; that is, doing a job from beginning to end with a visible outcome (Hackman and Oldham, 1975; 1980). Identification with one's job ultimately determines the strength of motivation in the context of job satisfaction, organizational commitment and job performance in a given job (Foss et al., 2009; Bremner and Carriere, 2011). Moreover, when employees work on a small part of a whole job, they may not fully see their effort reflected in the finished product. Consequently, they cannot assume responsibility and feel a sense of completion of the whole product (Lunenburg, 2011).

Researchers pointed out the positive reactions of employees towards task identity which also contributes towards job satisfaction, organizational commitment and job performance (Castellano, 2001). Within the occupation of nursing, it is established that employee performance, job satisfaction and internal motivation emerge stronger in relation to task identity (Gabr and Mohamad, 2012). In several research articles, task identity has been measured with the help of the following three dimensions, namely: a) a job as a complete piece of work with obvious beginning and ending (b) a job provides a chance to completely finish the work (c) arrangement of job so that a worker can do an entire piece of work from beginning to end (Lawler & Hall, 1970; Hackman and Oldham, 1975:1980; Morris & Venkatesh, 2011).

2.2.3. Task Significance

The degree to which the job has a substantial impact on the lives of other people, whether those people are in the immediate organization or in the world at large (Hackman & Oldham, 1975; 1980). It was accepted that task significance has a positive impact on other people within and outside the organization (Grant, 2008). Moreover, through task significance, managers can inform their employees how they are increasing performance and could help others (Grant, 2008).

In the literature on task significance, the following aspects have been used to measure task significance, namely: a) results of the work affecting the lives or well-being of other people; b) how well the job gets done and its impact on others (organization or society at large); c) job importance in the broader scheme of things (Hackman & Oldham, 1975, 1980; Grant, 2008; Morris and Venkatesh, 2010; Tims, Derks & Bakker, 2016).

2.2.4. Autonomy

Autonomy is the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedure to be used in carrying it out (Hackman & Oldham, 1975, 1980; Godeantu, 2012). In the Western context, the research on autonomy discussed the importance of discretion on the job. The major contribution of autonomy or discretion on the job is the choice for broader roles of employees (Sekhar, 2011).

In the extant literature on task autonomy, following aspects of the task autonomy are being used to measure task autonomy, namely: (a) deciding on your own to do a task (b) independence and

freedom to do a task (c) using personal initiative and judgment in the task (Hackman & Oldham, 1976; Morris & Venkatesh, 2010; Ahmadi, 2012).

2.2.5.   *Job Feedback*

Job Feedback is the degree to which carrying out the work activities required by the job provides the individual with direct and clear information about the effectiveness of his or her performance (Oldham & Hackman, 1975; 1976; Hadi & Adil, 2010). In the literature, job feedback has been measured with the help of several items on different scales. Johari, Mit & Yahya (2009) point out that job feedback means that the job provides clues and chances to figure out how well employees are doing (Morris & Venkatesh, 2010). Further job feedback contributes to the improvement of job satisfaction (Vezzoli, 2011).

All five Job characteristics play a critical role in designing jobs within the organizations. The Job characteristics construct although very important, it is seeming to be receiving lesser attention in scholarly and practical spheres in a developing Asian country like Pakistan. Fewer studies were conducted to test its validity across different Asian contexts and settings. Assessing the validity of an instrument in different contexts is important, and lack of that could render the validity of an instrument to be meaningless (Borsboom D, Mellenbergh GJ, & van Heerden J. 2004; Bambale, Shamsudin, & Subramaniam, 2013). Actually, job characteristics research may still be considered as underdeveloped in Asian conext, thus the dire need for tools to assist in the ongoing research for both theory building and practical application (Bambale et al., 2013).

The assessment of construct measurements is adjudged to be of paramount importance in the fields of psychology and the behavioral sciences (Cable & DeRue, 2002; Johari Mit & Yahya, 2009). Construct validity has become the bottom line of measurement in these disciplines because they indicate psychometric quality of measurement scales. Construct validity is an index of critical relevance for a measurement procedure, and has attracted an extraordinary amount of research attention for quite a long period (Borsboom Mellenbergh & van Heerden 2004; Crocker & Algina, 1986: Bambale et al., 2013).

3. METHODOLOGY

The target population in this research is all the academicians (professors, associate professors, assistant professors, lecturers) working in the private universities of Pakistan. There are all together 43 Higher Education Commission of Pakistan recognized private universities in Pakistan (HEC, 2013). The choice of 21 private universities located in the Punjab/Islamabad Capital Territory out of total 43 universities in Pakistan was based on Purposive sampling technique. Therefore, Punjab/Islamabad Capital Territory was chosen through purposive sampling technique, as data was accessible from these regions of Pakistan. Most private universities were located in the Punjab province/Islamabad Capital Territory regions, which have a sufficient proportion of the population in this study. Moreover, Punjab is the largest province of Pakistan with 65% of the population of the country (Ahmed & Ahsan, 2011). Moreover, Punjab and Islamabad Capital Territory have the highest literacy rates in Pakistan, which are 62% and 86% respectively ("Executive Summary", 2013). The 21 private universities in Punjab/Islamabad Capital Territory have accommodated the largest numbers of academicians in the country as permanent employees ("HEC", 2013).

As such, total population and sampling error tolerance were used to calculate the minimum sample size through Isreal's (2009) formula**:** $n = N/[1+N(e^2)]$] was used. Using a sampling error tolerance of 5% and a total population of 2,618, the formula generated a minimum sample size of 347 participants. To achieve a representative sample, 21 subgroups were created based on the 21 private universities' total population of 2,618 academicians. The sample of 347 academicians was allocated to the 21 private universities' academicians on the proportionate population basis (quota sampling).

3.1.   Measures

It is useful in measuring job characteristics per se and also useful in the examination of employees' attitude and all reactions to the job (Morris & Vankatesh, 2010; Zabihi et al., 2012). Johari, Mit and Yahya (2009) have re-conceptualized the constructs of job characteristics due to inconsistencies in the measure of the construct. They did an important study by adapting the scale developed by (Hackmann & Oldham, 1979) to 11 items. The alpha values for the five subscales were found to be in the range of 0.606 to 0.818. The overall internal consistency reliability of the job characteristics scale was 0.756 (Johari et al., 2009). In this research study job characteristics, consist of 11 items, are measured on a Five-point Likert-type scale from (1) "Strongly Disagree" to (5) "Strongly Agree" and Cronbach alpha was 0.857. The scale of job characteristics is given in Table 1 below:

Table 1: Job Characteristics Scale

Sr. No.	Scale	Job Characteristics
1	This job requires me to do many things at work using a variety of skills and talents.	Skill variety
2	This job requires me to use a number of complex skills or high level skills.	Skill variety
3	This job involves doing whole and identifiable piece of work with an obvious beginning and end.	Task identity
4	This job provides me the chance to completely finish the pieces of work I begin.	Task identity
5	The results of job are likely to significantly affect the lives or well-being of other people.	Task significance
6	This job is one where a lot of other people can be affected by how well the works get done.	Task significance
7	This job permits me to decide on my own on how to go about doing the work.	Autonomy
8	This job gives me a considerable opportunity for independence and freedom in how I do the work.	Autonomy
9	Besides feedback from co-workers, this job actually provides the clues on how well I am doing the work.	Feedback from the job
10	Just doing the work required by the job provides many chances for me to figure out how well I am doing.	Feedback from the job
11	After I finish my job, I know whether or not I have performed well.	Feedback from the job

Source: Scale adapted from Job Characteristics (Job Diagnostic Survey) (Hackmann & Oldham, 1976) and adopted from (Johari, Mit & Yahya, 2009).

4. RESULTS

4.1. *Exploratory Factor Analysis of Job Characteristics*

Exploratory Factor Analysis (EFA) with Principal Axis Factoring (PAF) extraction and an oblimin rotation were applied to the 11 items of the job characteristics construct to determine the appropriate number of factors. The data were not normally distributed; therefore, PAF was used instead of some other options (Hair et al., 1998). The first step is the examination of the correlation matrix of the items of the construct of job characteristics. It was discovered items JC2, JC3, JC6, JC7 and JC11 have comparatively weaker correlations (less than 0.3) with other items in the construct of job characteristics as shown in the Table 2 below.

Table 2: Inter Item Correlation Matrix for Job Characteristics

	JC1	JC2	JC3	JC4	JC5	JC6	JC7	JC8	JC9	JC10	JC11
JC1	1.000										
JC2	.555	1.000									
JC3	.452	.385	1.000								
JC4	.369	.280	.419	1.000							
JC5	.318	.262	.323	.376	1.000						
JC6	.245	.284	.291	.290	.501	1.000					
JC7	.313	.280	.237	.324	.347	.402	1.000				
JC8	.386	.304	.308	.343	.307	.334	.530	1.000			
JC9	.336	.316	.283	.340	.348	.349	.396	.452	1.000		
JC10	.378	.306	.327	.306	.354	.259	.328	.418	.606	1.000	
JC11	.378	.288	.283	.278	.295	.348	.265	.379	.461	.487	1.000

Note: Correlations are significant at P< 0.001

According to Field (2009) and Beavers et al. (2013), the correlation matrix could be used to assess the adequacy of the variables for inclusion in the factor analysis. As per definition, the variables which are not associated with at least some of the other variables will not contribute to the factor analysis (Tabachnick & Fidell, 2007). It was decided based on the weaker correlation values that items no JC2, JC3, JC6, and JC11 should be excluded from further application of EFA. The correlation matrix was generated again for the items JC1, JC4, JC5, JC8, JC7, JC9, and JC10. The correlation matrix demonstrated strong correlations among all the variables which are > 0.3.

However, in the first run of the EFA, there was a weaker loading of item JC7 (due to weaker correlations with other variables) compared to item JC8. Items JC7 and JC8 measure the same task autonomy dimension of job characteristics, therefore, it was decided to keep JC8 and drop JC7 without disturbing the theoretical foundations of the job characteristics theory and its comprehensibility and interpretability in the context of the research (Suhr, 2006; Beavers et al., 2013). It should also be ensured that the sample size is adequate for EFA. To accomplish this objective, KMO measure of sampling advocacy was acceptable (0.816) and Bartlett's test of

sphericity produced significant results (Chearskul, 2010). The results of these procedures for the construct of job characteristics are shown in Table 3.

Table 3: KMO and Bartlett's Test Results for Job Characteristics

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.816
Bartlett's Test of Sphericity	Approx. Chi-Square	503.969
	df	15
	Sig.	.000

The results demonstrated that the variables used to measure the construct of job characteristics can be factor analyzed. Further, the Principal Axis Factoring was carried out on the variables JC1, JC4, JC5, JC8, JC9 and JC10 of job characteristics and direct Oblimin rotation was performed on them. Only one component was extracted and the resulting factor loadings are shown in Table 4.

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Table 4: Factor Matrix for Job Characteristics Variables

Item No.	Items in the Scale	Components
		1
JC1	This job requires me to do many things at work using a variety of skills and talents (Skill Variety).	0.559
JC4	This job provides me the chance to completely finish the pieces of work I begin (Task Identity).	0.543
JC5	The results of job are likely to significantly affect the lives or wellbeing of other people (Task Significance).	0.541
JC8	This job gives me considerable opportunity for independence and freedom in how I do the work (Task Autonomy).	0.675
JC9	Besides feedback from co-workers, this job actually provides the clues on how well I am doing the work (Feedback from Job)	0.696
JC10	After I finish my job, I know whether or not I have performed well (Feedback from the Job).	0.666

The factor component matrix above showed that the items were loaded on one component and the label of "Job Complexity" was created for this one component, which is consistent and in line with studies conducted by Mowday and Spencer (1981) and Dunham (1976).

There are a number of indications that support a one factor solution:

i) Factor analysis showed that only the first eigenvalue (2.891) was larger than other eigenvalues.
ii) Inspection of the factor matrix table shows all items load strongly on the one underlying component (all above 0.5).
iii)   The scree plot (refer to Fig 1) also suggests that the one factor solution is acceptable.

Figure 1: Scree plot for Job Characteristics Construct
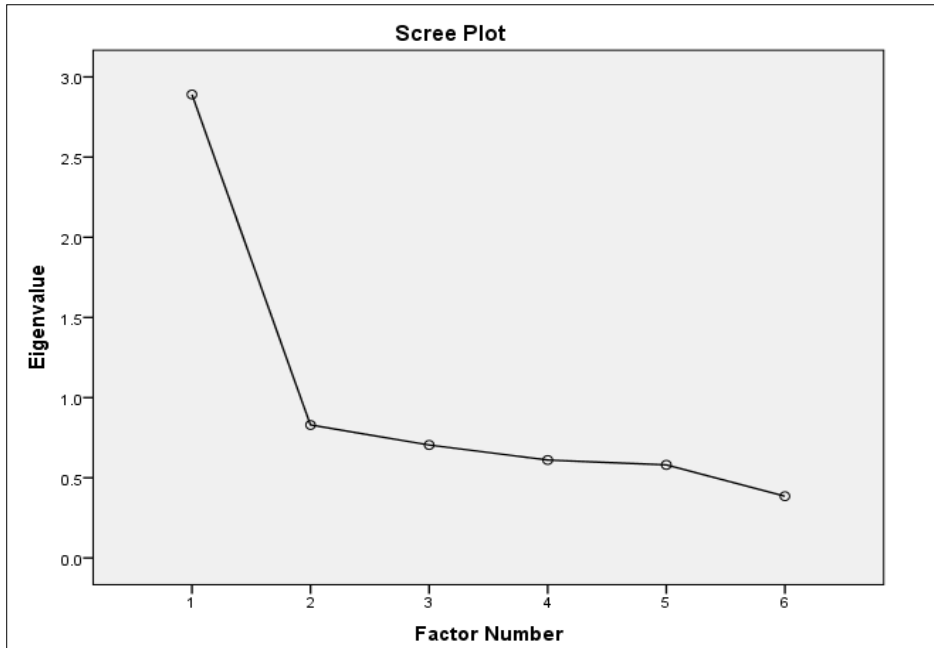
The Cronbach's Alpha reliability coefficient is 0.783 for the construct of job complexity, which is adequate to perform further statistical analysis. The resulting correlations are reported in the Table 5.

Table 5: Inter Item Correlation Matrix For Job Complexity

	JC1	JC4	JC5	JC7	JC8	JC9	JC10
JC1	1.000						
JC4	.334	1.000					
JC5	.280	.344	1.000				
JC7	.318	.309	.326	1.000			
JC8	.368	.340	.312	.525	1.000		
JC9	.313	.320	.318	.388	.442	1.000	
JC10	.319	.269	.329	.331	.404	.404	1.000

Note: Correlations are significant at $P < 0.001$

4.2.   *Confirmatory Factor Analysis (PLS-SEM)*

Having established psychometric properties of the scale, the internal consistency of the scale was measured by internal consistency measures, commonly known as Cronbach's Alpha (Grau, 2007) and composite reliability (Fornell & Larcker, 1981). Composite reliability focuses on relative loadings with respect to the estimated factor loadings within the overall measurement model

(Henseler, Ringle, & Sinkovics, 2009; Bourini, & Bourini, 2016; Elenkov & Solntsev, 2017). However, composite reliability could be interpreted in the same way as Cronbach's Alpha measures.

4.2.1. Convergent Validity

Convergent validity is referred to as "the degree to which multiple methods of measuring a variable provide the same results" (Gefen & Straub, 2005). It is demonstrated when each of the measurement items loads with significant t-values on its latent construct at least at the 0.05 significance level and each AVE value is greater than 0.50 (Hair et al., 2006).

In the first run of SmartPLS 3, the AVE values of job complexity was computed. The factor loading of the final PLS measurement models is reported in Table 5. All items loaded significantly on their respective factors, which indicate stronger indicator loadings. Gefen et al. (2000) have reported that loadings in PLS could be as high as 0.50. Composite reliability and Cronbach's Alpha values exceeded the minimum threshold value of 0.70. However, the AVE value for job complexity is 0.4811 which are less than 0.50 suggested by Fornell and Larcker (1981). It is also recommended that if the AVE value is less than 0.50 but composite reliability is higher than 0.60, the convergent validity of the construct is still established (Fornell & Larcker, 1981; Hair, Ringle, & Sarstedt, 2011; Hair et al., 2017). The final significant factor loadings, composite reliabilities, Cronbach's Alpha reliabilities and AVE value for the construct of job complexity are presented in the Table 6.

Table 6: Items Loadings, Scales' Reliabilities and Convergent Validities

Constructs/Items	Loadings	T-Values	Composite Reliability	Cronbach's Alpha	AVE
Job Complexity					
JC1	0.691178	19.518481			
JC10	0.742472	24.784102			
JC4	0.638060	14.564275	0.8471	0.7833	0.4811
JC5	0.630063	13.819379			
JC8	0.705087	25.093597			
JC9	0.745844	27.255774			

4.2.2. Discriminant Validity

Discriminant validity is "the degree to which measures of different latent variables are unique, i.e., the variance in the measure should reflect only the variables attributable to its intended latent variable and not to other variable and not to other latent variables" (Lehmann, 1988; Farrell, 2010).Complementary to convergent validity, discriminant validity is demonstrated by two factors: (i) When the measurement items show an appropriate pattern of loadings in which the measurement items load highly on their theoretically assigned factor and not highly on other factors, and (ii) when the square root of AVE for each factor is larger than any pair of its correlations with any other factor. All measurement items of job complexity showed appropriate pattern loadings, i.e., that each item of job complexity loaded higher on its principal construct than any other constructs. Further, the cross-loadings based on the PLS algorithm were higher than EFA results demonstrated

in the earlier sections, and the magnitude of loading differences between the loading on the principal constructs, and any other loadings were higher than the suggested threshold of 0.1 (Gefen & Straub, 2005). The inter-factor correlations and their comparison with square roots of AVE values along the diagonal correlation matrix is an evidence of sufficient discriminant validity for all latent variables in this study. Fornell and Lacker (1981) tested for discriminant validity and also revealed relatively high variances extracted for each factor compared to the inter-scale correlations, which was an indication of discriminant validity of all constructs. The result of discriminant validity analysis of job complexity construct shows a higher square root of AVE (i.e. 0.6964). This established an evidence of discriminant validity for the construct of job complexity.

5. THEORETICAL IMPLICATIONS

Firstly, job characteristics consisted of 11 items at the beginning of the EFA. After EFA, only 6 items were retained, each representing observable job characteristics which are skill variety, task identity, task significance, autonomy, and job feedback (labelled as "Job Complexity" (Dunham, 1976). Cronbach's Alpha was 0.783. This was in line with Dunham (1976). A priori dimensionality proposed by Hackman and Oldham (1975) proposed a five factor structure for job characteristics. However, there are many studies that have failed to find five factor solutions for job characteristics. Dunham (1976) reported that 83% of the explained variance in the sample of over 3000 employees in a merchandising corporation was accounted for by a single factor. Two factor or three factor solutions are more common in research studies (Hunter, 2006). Fried and Ferris (1986) found three factor solutions with task variety, autonomy, and task significance and collapsed them into a single factor which they thought was a better fit for their model. The possible causes for these different findings include the moderating effects of age and education, as well as the underlying dimensionality of the perceived job design (Hunter, 2006). Further, organizational design characteristics could be a source in undermining the dimensionality of the job characteristics in certain organizations. The organizational design which could be a source of discouraging the organizational members in exercising job autonomy, task variety, and others job characteristics which are in essence interdependent and affect each other in a given organizational design (Hunter, 2006).

Overall, the factor structure of the job characteristics remains in question, and requires further analysis (Hunter, 2006). Nonetheless, in this thesis the one factor solution best fitted the empirical data based on Cattlle's scree plot and eigenvalue rules of EFA. Thus, it was labeled as "Job Complexity" which is consistent with the study conducted by Dunham (1976). However, it could be established that Asian organizations institute decentralized organizational structure so that organizational members could perceive job characteristics as a part of the organizational design. Organizational structure and job design go together in the formulation of the perceptions of employees about skill variety, job feedback, task autonomy and task identity (Johari & Yahya, 2009). Nonetheless, the most parsimonious factorial solution was a single-factor solution representing job complexity (Judge et al., 2000).

Job complexity, which was based on the Job Diagnostic Survey (Hackman & Oldham, 1975) inventory, was consistent with uni-dimensionality achieved on the same scale conducted by (Charalambous, Raftopolous, & Talias, 2013) in a sample of nurses in Cyprus. A comparison of the original version of JDS (Hackman & Oldham, 1975) with the revised version of JDS (Idaszak

& Drasgow, 1987) revealed that the revised JDS factor structure was close to the hypothesized original version of JDS. As a matter of fact, the original version of JDS (Hackman & Oldham, 1975) identified a five-factor structure in JDS and was confirmed and is inconsistent with the factor structure of job characteristics in this study. The job characteristics of JDS (Hackman & Oldham, 1975) were validated through the application of EFA and confirmatory factor analysis (CFA). It was concluded that five subscales of job characteristics can be useful in examining job design in a Malaysian setting (Johari et al., 2009), which is also inconsistent with the results in this research.

These inconsistencies could be caused by methodological problems such as sampled data should have at least four to six items per scale; sampling fluctuations causing problems where in a sample of several hundred individuals only three items were used to assess each scale. Also when JDS would be used to assess perception in single types of job or to assess the perception of individuals in different types of jobs, then there could be inconsistencies in the factor structure of JDS (Buys, Olckers, Schaap, 2007). It was reflected that confirmed factor structure of JDS (Hackman & Oldham, 1975) also varies from individual to individual, job to job, industry to industry and region to region.

6. MANAGERIAL IMPLICATIONS

As far as the practice of management is concerned, the findings of this research support the intervention of job characteristics like skill variety, task identity, task significance, job autonomy and job feedback in private higher education industry in Pakistan. More especially, in the high power distance organizations of Pakistan, establishment of feedback channels, client relationships, job autonomy is a very important option to be introduced, so that some private universities could move from centralization to decentralization (Islam, 2004; Hansen & Host, 2012). Job complexity (a composite of job characteristics) is directly a way of improving job performance. Designing jobs with enriched characteristics sometimes gives rise to different attitudes like organizational commitment, job satisfaction and reduced turnover intention to improve the health of the organization (Johari & Yahya, 2009). The enrichment of job design is commensurate with the organizational design (Johari & Yahya, 2009). Most of Pakistan's private universities are based on highly top-down organizational structures with centralized decision making which impedes employees in the formulation of perceptions, attitudes and behavior resulting from application of job characteristics. Job characteristics are interdependent and all five job characteristics could be effectively demonstrated in the decentralized and less formalized organizational structures (Johari & Yaha, 2009). Individuals working in teams are more aware of job characteristics relative to each other (Hunter, 2006). Asian organizations, especially in private higher education, should emphasize team work so that academicians respond more favorably to task identity, job autonomy, and skill variety as an observable whole. One of critical job characteristics is job feedback from the supervisor which is most of the time missing or delayed in Pakistan's organizations. Managers in private higher education industry should provide human feedback instead of formalized feedback or computerized feedback (Judeh, 2012). Further, Job Crafting theory supports the emergent construct in this research. Managers should conceptualize job as a complex whole and should be taken as positive meaning and source of identity for employees (Ingusci et al., 2016). Pakistan's higher education employees are fond of adapting to their supervisor or boss's characteristics instead of job characteristics. A slave will adapt to their master's characteristics; an employee shall adapt to his/her job characteristics.

7. CONCLUSION

This research provides preliminary evidence that different validated constructs may be of use to Pakistan's managers in the private higher education to address critical human resources problems facing managers and human resources practitioners. However, additional research on the factor structure of the construct of job characteristics should be conducted before final conclusions can be reached by managers or practitioners in Pakistan's higher education industry. In social sciences there is no absolute domain of a construct since all construct exist in cultural spaces which further add a shade of one construct to another construct. Hence researcher should be careful in adopting the operationalization of a construct from other researchers. What is valid and reliable in one cultural space could be invalid, unreliable or exuberant in other cultural spaces.

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