

## **Construction and Validation of Fida and Najam Job Autonomy Scale for Employees**

**Muhammad Kashif Fida**

COMSATS Institute of Information Technology

**Najma Najam**

University of the Punjab

In this study a comprehensive scale of job autonomy was developed for Pakistani employees. In phase-I focus group discussion was used to generate forty-four items for the scale. In phase-II, pilot study was carried out. In the phase III, psychometric properties and factorial validation of Fida and Najam Job Autonomy Scale (FNJAS) was done on the sample of  $N=340$  bank employees. Factor analysis reduced the items to twenty-eight and yielded six sub-areas of job autonomy, i.e., autonomy in decision making, autonomy in social interactions at work, autonomy in job functioning, autonomy in following system and procedures, autonomy in work decorum, and autonomy in availing refreshment time. Significant reliability coefficient (.80) was found. Discriminant and convergent validity was also established. DASS-21 (Lovibond & Lovibond, 1995) and Job Satisfaction Survey (Spector, 1997) were used, revealing significant validities. It has been concluded that FNJAS was reasonably reliable and valid scale for the assessment of job autonomy among the employees. This scale will help the professionals, decision makers, authorities, and employers to find out the autonomy of job, its requirements, and intensity among employees.

*Keywords.* Job autonomy, factorial validity, reliability, employees

Job autonomy became an essential part of organizational practices when researches explored that autonomy at job is one of the human needs, similar to those which Maslow (1954) has presented in his famous need hierarchy theory (Porter, Lawler, & Hackman, 1975).

---

Muhammad Kashif Fida and Najma Najam, Department of Humanities, (COMSATS) Institute of Information Technology, Lahore, Pakistan.

Najma Najam, Institute of Applied Psychology, University of Punjab, Lahore.

Correspondence concerning this article should be addressed to Muhammad Kashif Fida, Department of Humanities, (COMSATS) Institute of Information Technology, Lahore, Pakistan. E-mail: drkashiffida@yahoo.com

Breaugh (1985) defines job autonomy while relating the degree of control or discretion to an employee exercise during work facet. Breaugh (1985) identifies three facets of the job autonomy that are; autonomy related to method of work (the extent an employee can select alternatives, independently, for the operations and technique they use). Second is autonomy in developing work schedule (independence in controlling and managing own activities), and lastly autonomy of criteria (freedom in altering the evaluation system). In short, job autonomy as job characteristics is mainly described in the form of self-determination, discretion and freedom at work place (Jonge De et al., 2001).

The concept of job autonomy has based on following theories. For instance, job characteristic theory propagates work design by offering principles that are implemented for enriching jobs in organizations. The classic school of this theory has presented a model consisting of five 'core' job characteristics including, skill variety, task identity, task significance, autonomy and feedback that effect five work related outcomes that are motivation, satisfaction, performance, absenteeism and turnover through three psychological states including experienced meaningfulness, experienced responsibility, and knowledge of results (Hackman & Oldham, 2005). In organizations job autonomy has been inculcated to enrich the jobs. Job enrichment is a modern concept of capacitating an employee and giving freedom so that employee can perform productive functions. Self-Determination Theory is a human motivational theory that highlights the significance of individual's need for autonomy. When behavior of an individual is self-determined it echoes personal values and freedom of choice, and the person becomes motivated. This theory postulates that autonomy is a fundamental factor that is obligatory for ideal individual's development and motivation. The fulfilment of this need is pertinent for the regulation and values of a behavior to be internalized. This is for the realization of the individual to perceive succeeding behavior as being autonomous (Gagne & Deci, 2005).

The comparison between perceived autonomous behavior and perceived controlled behavior is highly recommended for motivating the job-related behaviors. This theory propagates the difference between autonomous and controlled behavior. It highlighted that autonomous behavior is self-sustained as an individual choose it freely. However, controlled behavior established an external pressure that may give a sense of obligatory actions, eventually leading to less productive behavior. On the other hand, providing autonomy could leads to positive effects on job (Deci & Ryan, 2012). Researches suggested that job autonomy could be used as a motivational

technique to elevate the productivity. Presently 90% of the top fortune companies have been using job autonomy as a tool to increase the performance, motivation and satisfaction of the employees (Lawler, Mohrman, & Ledford, 1995). In order to explore the job autonomy, various scales have been developed and further investigated by many researchers. Initially, Turner and Lawrence (1965) developed a scale which measures six job characteristics. Five items of this scale were utilized to measure the job autonomy. These items measured job autonomy through its aspects like work method, work sequence and work pace. In this test, other important work characteristics were combined together due to high association among each other. That is why it was not possible to evaluate the psychometric properties of this scale (Jonge De et al., 2001).

Hackman and Lawler (1971) constructed Yale Job Inventory (YJI). In this inventory, three items were provided to measure the job autonomy on seven-point scale. The operationalization of three items of the construct included vocabulary like autonomy, independence and freedom. Internal consistency of scale were found satisfactory. Stone (1974) generated Job Scope Test consists of 13 items, based on a combined and improved version of the previous scales. This test measures five different job characteristics one of them was job autonomy. In this test, four items represented the job autonomy. These items were based on some aspects like method, order, speed and tools, and were provided with five-point scale. Overall, the test measures job scope. Psychometric properties of this test were not evaluated. Hackman and Oldham (1975) constructed Job Diagnostic Survey (JDS). The JDS comprises of five scales that measure core job characteristics including job autonomy. Three items represents the job autonomy in the JDS among them one was negative worded. Further, a seven-point Likert scale was used for response collection. Fried and Ferris (1986), and Fried, (1991) explored its coefficient of alpha by using 48 samples which range from .35 to .90. The test re-test reliability improves when JDS was administered with the interval of one to five test retest months (Taber & Taylor, 1990).

Jonge De, et al., (2001) developed a job autonomy scale devised to measure three dimensions of job autonomy. These dimensions were method, scheduling and criteria. This scale consisted of nine statements (three for each factor) provided with seven point scale. Breauh (1985), and Breauh and Backer (1987) reported internal consistencies ranging from .77 (Criteria autonomy) to .97 (Method and scheduling autonomy).

Finally, Spector and Fox (2003) has developed Factual Autonomy Scale (FAS) aiming to reduce the subjectivity in the measurement of workplace autonomy. He used items to ask about factual information

rather than general opinion. This scale consisted of ten items with five choices of responses. Spector and Fox (2003) reported that FAS has better convergent validity and has strong correlation with the general autonomy sub scale of the job diagnostic survey (Hackman and Oldham, 1975). Spector and Fox (2003) reported internal consistency reliabilities (coefficient alpha) available from three samples: For university support personnel coefficient alpha is .81 and for supervisor .82. For combination of university support personnel and other private sector employees' alpha coefficient were .80 incumbents, .85 co-employees and employed university students .87. The conceptualizations and operationalization of job autonomy have been criticized because of many reasons. Many experts discussed the salient aspects of job autonomy but the less attempts have been made to operationalize the concept (Chung, 1977; DeCotiis & Koys 1980). Breugh (1985) attempted to empirically identify the components but three facets that is method, scheduling and criteria autonomy were difficult to identify and measure. Similarly, Spector and Fox (2003) designed FAS to minimize the subjectivity in the assessment of workplace autonomy by asking factual information rather than general opinion. Earlier, Lawler and Hackman (1975), mentioned that job autonomy is one of the human needs, similar to those explained by the Maslow (1954) in the hierarchy of needs. Osborn et al. (1980) described that the quality of work-life is a subjective component and may vary in degree from person to person. It is important to note here that above mentioned tests measuring job autonomy were developed in the technologically advanced world with a primarily Western cultural context.

Indigenously, several researchers have studied job autonomy in Pakistani settings. The organizations in Pakistan that want to retain their best employees must make sure about their satisfaction with the work while considering their job autonomy. The large number of studies have been conducted in Pakistan to investigate how work autonomy is directly associated with the beneficial work outcomes. The construct of job autonomy has gained the attention of the researchers due to its benefits for the employees as well as the organizations. When the job autonomy is provided to the employees then their level of intrinsic motivation increased by perceiving that they are trusted by the employer or the organization to perform the task. This behavior may lead to certain desirable work outcomes (Naqvi, Ishtiaq, Kanwal, & Ali, 2013).

Naqvi et al. (2013) have investigated the role of job autonomy in the job satisfaction of the 300 Pakistani banking sector employees. The research findings revealed that job autonomy, job recognition, promotion opportunities, and pay incentives were significantly associated with job satisfaction. Moreover, job autonomy is also linked with the employee's

ability to make significant and independent decisions about the problems in the workplace that leads to job satisfaction. Moreover, it is examined by Akram, Ali, and Hassan (2013) that job autonomy plays an important role to engaging employees in their work. For this purpose, they conducted a research study on the 250 faculty members of private universities of Pakistan to investigate the impacts of job autonomy on work engagement. According to the findings, job autonomy has positive relationship with work engagement because when autonomy provided to employees in their work, then work gets done more quickly with better results. Another research study was conducted to assess the human resource autonomy and find out the differences in human resource practices in different departments of Pakistan. The research findings derived through the qualitative research design, suggested that different departments of Pakistani provinces have not yet achieved the autonomy, especially in its human resource practices (Farooq, Jabeen, Rizwan, & Salman, 2018).

However, all the researches mentioned above used foreign tools to measure job autonomy. Several studies (Rousseau & Fried, 2001; Ali, 1996; Rahmati, 2000; Parnell & Hatem, 1999). have described the significance of indigenous and culturally acceptable scale. Socio-cultural context influenced the general applicability of behavioral and management constructs which were developed in the West and particularly suitable for the Western socio-cultural context Sadler-Smith, El-Kot and Leat (2003) emphasizes that caution should be taken to apply theories developed in the Western context related to quality of work-life, job characteristics and motivation to Asian cultures due to strong difference in socio-cultural contexts. Yousef (2001) argued that in Asia, lesser attention is paid to indigenous work- values and management. Similarly, less literature is available on quality of work-life, job attitudes and job characteristics of the employees. Therefore, it would appear that job autonomy might exist in organizations by default rather than by design (Sadler-Smith, El-Kot, & Leat, 2003).

The concept of job autonomy is relatively new for Pakistani organizations and its importance created a thrust to do more indigenous investigations. In this regard, it is pertinent to develop localized scale to investigate the concept in depth as per the indigenous context. Further, there is a need to redefine the construct of the job autonomy according Pakistani cultural context too. Therefore, the current study is an attempt to explore a definition and develop an indigenous scale, in the Pakistani organizational context.

## Method

The present study was conducted in three phases:

**Phase I:** Identification of statements and indicators of job autonomy

**Phase II:** Pilot study

**Phase III:** Empirical validation of scale and standardization of FNJAS

### Phase I: Items Generation for the Job Autonomy Scale

During scale development, item generation is most important part of the study because goodness of the test mainly depends on content and construct validity. That is why focus of this phase is to generate the items accurately and scientifically reflecting the true sense of job autonomy in Pakistani context. During this phase, different verbatim/statements related to job autonomy were explored and identified.

**Sample.** Twenty-six participants were selected from seven different organizations included both genders i.e., male  $n=14$  and female  $n = 12$ . Names of the organizations are not mentioned here as the authorities of the organizations were sensitive to mention their name. The age of participants ranged from 27 to 45 years with an average age of 36 years. All the participants were business graduates, as minimum qualification for inclusion is graduation. They work in banks and telecom organizations at various hierarchies for the last five to ten years.

**Procedure.** Focus group discussions were designed and carried out to generate the statements for the job autonomy from the participants. For current study, seven focus groups were conducted among the participants. Language of the focus group discussion was both English and Urdu. All the participants were working at middle management positions. At this position employees are expected to perform his/her duties independently and also supervise the juniors. Before opening the focus group discussions, aim and purpose of the study was well explained to all the participants. They were explained that the study is aiming “to identify the factors related to Job Autonomy. Further aim is to “construct a reliable, valid and an indigenous instrument to measure Job Autonomy in Pakistani cultural context. It was clearly mentioned that “their responses will be used only for research purpose and their identities will remain confidential.



During the focus group, the researcher acted as a moderator. Focus group was initiated with “exploring the term Job Autonomy”. Further discussions maneuver towards “job related autonomy of the participants in his/her professional life”. Approximate time of the discussions with each focus group was 120 to 125 minutes. During the focus groups, participants explored the term job autonomy on the basis of their personal and professional experiences as per their current organizational setting. Moderator noted all the verbatim/statements related to job autonomy on a chart paper so that every member could actually see it clearly. These statements were further discussed, mutually agreed and accepted by majority of the participants within that group. In addition, a qualitative comparison was made by using the verbatim collected from the participants. This comparison yields into matched/ common/similar and unmatched/uncommon/non-similar verbatim. The researcher thus was able to generate 44 items by using the verbatim statements. On the basis of similar natured text, these statements were categorized in seven indicators of the job autonomy according to Pakistani cultural context. Afterwards these items were sent to five English language experts for grammatical or textual corrections. These experts have suggested corrections in four items which were made accordingly. Now the items are ready for next phase.

## Results

Table 1

*Frequency Indicators of Job Autonomy Explored and Identified by the Participants of Focus Group (N = 26)*

Serial No.	Indicators of Job Autonomy	<i>frequency</i>		Total
		M	F	
1	Autonomy in Job Functioning	14	12	26
2	Autonomy in Scheduling of Work	14	12	26
3	Autonomy related with Gender	14	12	26
4	Autonomy in Dress code	14	12	26
5	Autonomy in making change(s) in Physical Environment	13	12	25
6	Autonomy in Decision Making	14	9	23
7	Autonomy in maintaining Social Interaction	14	7	21

Table 1 showing indicators of job autonomy, explored during focus group discussions. Participants ( $N = 26$ ; male = 14, female = 12)

consented seven core aspects of job autonomy in their office routine. Females vary in opinion for decision making and autonomy in social interactions. In contrary, responses of male respondents have consistent opinion.

### **Phase II: Pilot Study**

This pilot study was carried out before the major study. Purpose of this study is to pre-test the job autonomy scale in order to identify and minimize any ambiguity, test administration confusion or any error in the job autonomy test. Modifications could then be made to produce a final scale for the main study. Further, the reliability test was also carried out.

**Sample.** Purposive sampling technique was adopted. One hundred and thirty six (136) participants from the same organizations but not the ones who had already participated in the focus groups were selected. Among these, 89 were males and 47 were females. The age of participants was ranging from 24 to 44 years with the mean age 34 years. The minimum qualifications and experience were same as in previous phase.

**Results.** Questionnaire was administered and during administration no participant has reported any ambiguity or confusion in the content of the scale. Participants were reported that instructions were self-explanatory and there was no confusion to understand the consent form, scale administration instructions and the scale itself. The Cronbach's alpha reliability of the scale was computed which is .6, which is significant for 136 participants. This scale is ready for future use to measure the job autonomy in Pakistani cultural context.

### **Phase III: Psychometric Properties and Empirical Validation**

This study aimed to assess and identify the psychometric properties of the FNJAS as well as empirical validation of FNJAS in Pakistani cultural context.

**Sample.** Selected sample comprises of three hundred and fifty (350) participants (different participants from the previous studies) from various organizations. During the study ten participants dropped out due to their personal reasons. Remaining  $N = 340$  participants were included males ( $n = 285$ ) and females ( $n = 55$ ). The age of participants was ranging from 23 to 63 years with the mean age of 32.12 years.



**Procedure.** Researcher took formal approval of the relevant authorities of organization to collect the responses from participants. They were informed about the aims and objectives of the study. Further it was informed that response given will be treated confidential and used only for research purpose. They were also asked to be objective while responding to the items of the scale. Details of instructions delivered before the administration of the scale. Two questionnaires along with demographic sheet and job autonomy scale were administered. Moreover, for convergent and discriminant validity, DASS-21 developed by Lovibond and Lovibond (1995) and Job Satisfaction Survey developed by Spector (1997) were used respectively. Researcher collected all the data personally from the participants. After the completion of data collection statistical program for social scientist version seventeen (SPSS-17) was used for data analysis, finding the reliability and validity of the measures.

**Results.** Results depicted 155 high, 46 moderate, 7 high-inverse, and 3 moderately inverse correlations among the items. More the number of significant correlations among the items of the job autonomy scale, reflects strong internal consistency of the test with high convergent validity (Anastasi, 1996). A negative correlation among the items shows inverse relationship. These results reported significant coefficient alpha reliabilities for the job autonomy scale (FNJAS). The alpha reliability of the scale on overall sample was  $\alpha = .8$ , separately for the male and female samples ( $\alpha = .79$ ), ( $\alpha = .77$ ).

The factor analysis was utilized to extract the sub-scales of the job autonomy scale. The extraction method was used to estimate the factor analysis through principal component analysis with Varimax rotation. This rotation was followed with Kaiser Normalization which measures adequacy of sample. The Kaiser-Meyer-Olkin (KMO) evident the adequacy of sample for the job autonomy scale (KMO = .75) along with significant (0.001) Bartlett's test. The communality for the job autonomy scale range from .68 (item-1) being highest to 2.67 being low for the item number 19, further all the communality is greater than .38 with the average of .5.

Table 2 explains the findings of exploratory factor analysis that structured six distinct factors of FN Job Autonomy Scale. The overall factor loading values of all the six factors have significant loadings hence depicting strong factorial validity. The eigen values given in six factors accounted for 53% of the total variance.

Table 2

*Factor Loading of Items of FNJAS (N = 340, k = 28)*

Items		Factors					
		ADM	ASI	AJF	ASP	AWD	ART
ADM	1	<b>.718</b>	.134	.160	-.204	.007	.077
	2	<b>.705</b>	-.001	.008	.031	.130	-.025
	3	<b>.601</b>	.222	.148	-.148	.114	.186
	4	<b>.595</b>	-.098	.320	.176	.283	.003
	5	<b>.567</b>	.155	-.261	-.004	-.260	-.111
	6	<b>.558</b>	-.072	.136	-.001	-.120	.182
	7	<b>.477</b>	-.054	.426	.322	.158	-.015
	8	<b>.431</b>	.369	-.090	.349	-.218	.081
	9	<b>.423</b>	.051	.202	-.100	-.300	.219
ASI	1	.053	<b>.749</b>	.048	.029	-.075	-.057
	2	-.020	<b>.743</b>	.097	.016	.108	.126
	3	.045	<b>.685</b>	.050	.007	.251	.073
	4	.084	<b>.567</b>	.116	-.003	.127	.235
	5	.221	<b>.518</b>	-.022	.273	-.157	.043
	6	-.254	<b>.395</b>	.244	.252	.353	.124
AJF	1	.133	.151	<b>.778</b>	.172	.031	-.080
	2	.224	.051	<b>.655</b>	.006	-.157	.174
	3	-.069	.072	<b>.639</b>	.200	-.044	.047
	4	.412	.146	<b>.541</b>	-.198	.126	-.036
ASP	1	-.213	-.121	-.004	<b>.634</b>	.146	.365
	2	-.052	.047	.117	<b>.558</b>	.055	-.229
	3	-.232	.307	.129	<b>.508</b>	.118	-.110
	4	.243	.096	.145	<b>.417</b>	.012	-.057
AWD	1	-.098	.134	-.014	.153	<b>.658</b>	.077
	2	.207	.052	.140	-.114	<b>.481</b>	-.473
	3	.248	.110	-.179	.035	<b>.458</b>	.194
ART	1	.199	.186	.144	-.061	.075	<b>.660</b>
	2	.159	.240	.011	-.147	.139	<b>.582</b>
Eigenvalue		4.23	2.82	2.26	1.89	1.61	1.24
Alpha Reliability		.77	.73	.67	.47	.27	.62
% of Variance		21.46	10.45	6.52	5.08	4.85	4.54
Cum. % of Variance		21.46	31.91	38.42	43.50	48.35	52.90
K		9	6	4	4	3	2

*Note.* ADM=Autonomy in Decision Making, ASI=Autonomy in Social Interactions, AJF=Autonomy in Job Functioning, ASP = Autonomy to follow Systems and Procedures, AWD=Autonomy in Work Decorum, ART=Autonomy in Availing Refreshment Time, K= number of items.

Table 2 shows that Factor 1 is loaded with nine items of sub-scale named as Autonomy in Decision Making (ADM). The sequence of the item loading for ADM was seen as item 1 to 9 of the scale with loading values ranging from .71 to .42. Factor 2 is loaded with six items of subscale Autonomy in Social Interactions (ASI) having significant loading range from .74 to .39. Autonomy in Job Functioning (AJF) was loaded as factor three of FNJAS with four items. The factor loadings of

AJF ranged from .77 to .54. Fourth factor, Autonomy to follow Systems and Procedures (ASP) extracted with four items with factor loading from .63-.51. Last two sub-scales Autonomy in Work Decorum (AWD) and Autonomy in availing Refreshment Time (ART) with factor loading values ranges from .65 to .45 (k=3) and .66 to .58 (k=2) respectively.

Table 3

*Discriminant and Convergent Validity of the FNJAS (N = 340)*

Scale/subscales	Depression	Anxiety	Stress	Job Satisfaction
Job Autonomy (total scale score)	.01	.02	.01	.89**
Autonomy in decision making	.12	.14	.26	.42**
Autonomy in social interactions	.18	.09	.21	.32*
Autonomy in job functioning	-.04	-.01	-.06	.49**
Autonomy to follow systems and procedures	-.14	-.20	-.21	.75**
Autonomy in work decorum	-.03	-.02	-.06	.49**
Autonomy in availing refreshment time	-.01	-.02	-.03	.75**

\*\*  $p < .00$ , \*  $p < .01$ .

Table 3 indicates discriminant and convergent validity of the FNJAS. It is evident from the above table that FNJAS and its sub-scales have no correlation with Depression, Anxiety and Stress Scale DASS-21 depicting significant discriminant validity of FNJAS. However, positive significant correlations were observed between FNJAS and Job Satisfaction Scale thus showing strong convergent validity of FNJAS.

## Discussion

Three indicators 'autonomy in job functioning, autonomy in making schedule, and autonomy in decision making' were found out during the focus group discussion as major aspect of job autonomy in Pakistan. These are consistent with the findings of Breaugh (1985) who also identified similar indicators of job autonomy. Other indicators autonomy related with gender, autonomy in dress code, autonomy in making changes in physical environment of the office and autonomy in developing social interactions with work colleagues are additional findings of this study. On the basis of the results of

phase-I, job autonomy, according to Pakistani cultural context, may be defined as freedom in; job functioning, scheduling own work, gender discrimination, dress choice, making change in physical environment of the desk/office, making job related decisions, and maintaining inter and intra departmental social interactions.

The items generation process of the Job autonomy scale was a highly technical part. Participants from organizations were involved in this process directly. Above mentioned definition of job autonomy in Pakistani context, verbatim of the participants generated during the focus group and content analysis technique were utilized, for the generation of items accurately and scientifically reflecting the true sense of job autonomy in Pakistani context, so that, the FNJAS measures the job autonomy accurately. It would also produce observations distinct from that produced by the measure of another construct because of the cultural differences. The whole procedure advocates the strong content and constructs validity of the FNJAS (Tella, 2011).

Factor analysis was used to measure underlying variables of FNJAS and to further determine the subscales of job autonomy (Field, 2005). Principal component analysis was used for factor extraction (Costello & Osborne, 2005). Six sub-scales (factors) were extracted at 1.24 eigen value. The item loadings for the FNJAS are ranging from .39 to .72, for all sub-scales it is showing the significant and acceptable loadings as mentioned by Tabachnick and Fidell (2001). No significant cross-loading of items was found among the sub-scale. In order to make a sense and meaningfulness for extracted factors of Job Autonomy Scale (FNJAS) all sub factor were named. These scales are included autonomy in decision making, autonomy in social interactions, autonomy in job functioning, autonomy in following systems and procedures, autonomy in work decorum, autonomy in availing refreshment time. The result of factors analysis shows significant loadings with the extraction of six subscales and no cross-loading of items in to other factors. Such trend of the sub-scale in this study contributes evidence to support the construct validity (Dawis, 2000).

Cronbach's alpha for the current study is .79 ( $N = 340$ ) which is highly significant and acceptable (Charter, 2000; George & Mallery, 2003; Kline, 1983; Nunnally & Bernstein, 1994; Segall, 1994). Gender wise coefficient alpha is also showing same trends, that is for male participants alpha coefficient is .80 ( $n = 285$ ) and for females it is .77 ( $n = 55$ ). The internal consistency results of Cronbach's alpha indicate that FNJAS is reliable and equally administrable to both male and female population. High and significant alpha value of Cronbach's reliability test confirms that sub-scales are reliable for

further usage (Charter, 2000); George & Mallery, 2003; Kline, 1983; Nunnally & Bernstein, 1994; Segall, 1994).

Researcher also examined the convergent validity evidence through significant correlation between the scores of FNJAS and JSS. As shown in table 3, all the correlations are highly significant, hence sought the significant convergent validity of the scale. Additionally, discriminant validity evidence for the FNJAS has also been demonstrated by examination its relationship with the construct theoretically unrelated with job autonomy. Depression, Anxiety and Stress Scale was use for this very purpose. Results reveal no correlation among the variables, hence depicting the significant discriminant validity evidence.

### **Limitations and Suggestions**

There were few challenges that researcher faced while developing the scale (FNJAS). These challenges include typical non-availability, or rather less availability of the participants due to their busy schedule. Few participants were un-willing to provide their demographic information therefore, they withdrew themselves from the research. Further, there is no published material available on Job Autonomy Scale, with reference to Pakistani cultural context.

### **Implications**

The FNJAS is the first scale developed in Pakistan to measure the Job Autonomy indigenously. All the norms of the FNJAS are local and according to Pakistani cultural context. The FNJAS has strong reliability and validity. The FNJAS measures six different aspects of Job Autonomy. Each sub-scale has valid and significant reliability. The FNJAS is easily administrable to the single or may be in group settings. The language of the FNJAS is simple and easy to comprehend. Researchers hope that this locally developed scale might allow researchers to study the job autonomy in depth, and also allow them to study the work ethics construct in the future.

### **Conclusion**

This study's purpose was to develop a psychometrically-sound scale to measure the job autonomy of employees. The evidences from factor structure, reliability analysis, construct validity, discriminant

validity and convergent validity reveals that FNJAS has maintain acceptable psychometric properties. The present research was initiated with item selection, and item generation based on item information. Test construction typically begins with a specification of construct domain, domain sampling through item pool, then the selection of items to construct a scale. In this study, item pool was comprised of focus group discussions with employees and their verbatim. After generating the items, data was collected on large scale and further used for systematic processing of scale construction, reliability, validity and cross validation. Indeed, results of all the phases of the study provide information on the psychometric properties of the FNJAS, including initial item generation procedure, item selection protocol, factor loading, reliability, validity (construct, discriminant and convergent, predictive). Internal consistency estimates are all in acceptable range. These findings provide evidence in support of FN Job Autonomy Scale, comprised of 28 items with six subscales, psychometrically sound scale. Further it can reliably measure job autonomy among the employees in Pakistan. In the light of above evidence, in Pakistan cultural context previous definition of job autonomy evolved as job autonomy refers to an employee's freedom in decision making, social interactions with colleagues, job functioning, following systems and procedures, work decorum and availing full refreshment time.

## References

- Akram, A., Ali, M., & Hassan, M. (2013). Impact of job autonomy on work engagement: The mediating role of job crafting in universities of Pakistan. *International Journal of Management Sciences and Business Research*, 3(1), 31-44.
- Ali, A. (1996). Organizational development in the Arab world. *Journal of Management Development*, 15(5), 4-21.
- American Psychological Association (1999). *Standards for the Psychological and Education Testing*. Washington: APA-AERA Publications.
- Anastasi, A., & Urbina, S. (1996). *Psychological testing* (7<sup>th</sup>ed.). New York: Prentice Hall.
- Breaugh, J. (1987). Further examination of the work autonomy scales: Three studies. *Human Relations*, 40(6), 381-399.
- Breaugh, J. A. (1985). The measurement of work autonomy. *Human Relations*, 38, 551-570
- Charter, R. (2000). Confidence Interval Formulas for Split-Half Reliability Coefficients. *Psychological Reports*, 86(3part2), 1168-1170.



- Chung, K. H. (1977). *Motivational theories and practices*. Columbus, Ohio: Grid Publishing.
- Costello, A. B., & Osborne, J. W. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment Research and Evaluation*, 10(7), 2-9.
- Cronbach, L. J., & Meehl, P. C. (1955). Construct validity in psychological tests. *Psychological Bulletin*, 52, 281-302.
- Dawis, R. V. (2000). Scale Construction and Psychometric Considerations. In H.E.A. Tinsley, and S.D. Brown (Eds.), ( pp. 65-94). San Diego: Academic Press.
- Deci, E. L., & Ryan, R. M. (2012). Self-determination theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of theories of social psychology* (pp. 416-437). Thousand Oaks, CA: Sage.
- DeCotiis, T. A., & Koys, D. J. (1980). The identification and measurement of the dimensions of organizational climate. *Academy of Management Proceedings*, 1(1), 171-175.
- Farooq, M., Jabeen, N., Rizwan, A., & Salman, Y. (2018). Autonomy of HR Practices in Pakistan: A Study of Provincial Autonomous Bodies. *Journal of the Research Society of Pakistan*, 55(1), 45-66.
- Field, A. (2005). *Discovering statistics using SPSS* (2<sup>nd</sup> ed.). London: SAGE Publications.
- Fried, Y. (1991). Meta-analytic comparison of the Job diagnostic survey and job characteristics inventory as correlates of work satisfaction and performance. *Journal of Applied Psychology*, 76(5), 690-697.
- Fried, Y., & Ferris, G. (1986). The dimensionality of job characteristics: Some neglected issues. *Journal of Applied Psychology*, 71(3), 419-426.
- Gagne, M., & Deci, E. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331-362.
- George, D., & Mallery, P. (2003). *SPSS for windows sstep by step: A simple guide and reference*. (4<sup>th</sup> ed.). Boston: Allyn and Bacon.
- Hackman, J., & Oldham, G. (1975). *Work redesign*. Reading, MA: Addison-Wesley.
- Hackman, J. R., & Lawler, E. E. (1971). Employee reactions to job characteristics. *Journal of Applied Psychology*, 55(3), 259-286.
- Hackman, J. R., & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology*, 60(2), 159-170.
- Hackman, J. R., & Oldham, G. R. (2005). How job characteristics theory happened. *The Oxford handbook of management theory: The process of theory development*, Oxford, UK: Oxford University Press, pp. 151-170.
- Jonge De, J., Dormann, C., Janssen, P. P. M., Dollard, M. F., Landeweerd, J. A., & Nijhuis, F. J. N. (2001). Testing reciprocal relationships between job characteristics and psychological well-being: A cross-lagged

- structural equation model. *Journal of Occupational Organizational Psychology*, 74, 29-46.
- Kline, Paul. (1983). *Personality, measurement, and theory*. London. Hutchinson Press.
- Lawler, E. E., Mohrman, S. A., Ledford, G. E., & Association for Quality and Participation. (1995). *Creating high performance organizations: Practices and results of employee involvement and Total Quality Management in Fortune 1000 companies*. San Francisco: Jossey-Bass.
- Maslow, A. H. (1954). *Motivation and personality*. New York: Harper.
- Naqvi, S. M., Ishtiaq, M., Kanwal, N., & Ali, M. (2013). Impact of Job autonomy on organizational commitment and Job satisfaction: The moderating role of organizational culture in fast food sector of Pakistan. *International Journal of Business and Management*, 8(17), 92-102.
- Naqvi, S. M., Raza M., Malik F., & Mahmood, Qurratulain. (2013). The Impact of Promotions, Recognition, Autonomy and Pay Incentives on job satisfaction: A case of banking sector employees in Pakistan. *The International Institute for Science, Technology and Education (IISTE)* 5(5), 187-193.
- Naqvi, S. R., Kanwal, N., Ishtiaq, M., & Ali, M. (2013). Impact of job autonomy on organizational commitment: Moderating role of job satisfaction in Tobacco industry of Pakistan. *Far East Journal of Psychology and Business*, 12(5), 57-72.
- Nunnally, J., & Bernstein, I. (1994). *Psychometric theory* (3<sup>rd</sup> ed.). New York: McGraw Hill.
- Osborn, R. N., Hunt, J., & Jauch, L. (1980), *Organization theory: An integrated approach*. New York: Wiley John & Sons.
- Parnell, J. A., & Hatem, T. (1999). Cultural Antecedents of Behavioral differences between American and Egyptian managers. *Journal of Management Studies*, 36, 399-418.
- Porter, L. W., Lawler, E., & Hackman, J. R. (1975). *Behavior in organizations*. Tokyo: McGraw-Hill Kogakusha.
- Rahmati, N. (2000). *Teaching Information Systems and International Students: a Qualitative Examination of the Cultural Differences in Computer Support Group Work*. Proceedings of 15<sup>th</sup> Annual Conference of the International Academy for Information Management, Brisbane, Australia.
- Rousseau, D. M., & Fried, Y. (2001). Location: Contextualizing organizational research. *Journal of Organizational Behavior*, 22, 1-13.
- Sadler-Smith, E., El-Kot, G., & Leat, M. (2003). Differentiating work autonomy facets in a non-Western context. *Journal of Organizational Behavior*, 24, 709-731.
- Segall, D. O. (1994). The reliability of linearly equated tests. *Psychometrika*, 59, 361-375.

- Spector, P. E. (1997). *Job satisfaction: Application, assessment, causes, and consequences*. London: Sage Publishers.
- Spector, P. E., & Fox, S. (2003). Reducing subjectivity in the assessment of the job environment: Development of the factual autonomy scale, FAS. *Journal of Organizational Behavior*, 24, 417-432.
- Stone, E. F. (1974). *The moderating effect of work-related values on the job scope job satisfaction relationship* (Unpublished doctoral dissertation). University of California, Irvine, USA.
- Stone, E. F., & Porter, L. W. (1975). Job characteristics and job attitudes: A multivariate study. *Journal of Applied Psychology*, 60(1), 57-64.
- Tabachnick, B. G., & Fidell, L. S. (2001). *Using multivariate statistics*. Boston: Allyn and Bacon.
- Taber, T. D., & Taylor, E. (1990). A review and evaluation of the psychometric properties of the job diagnostic survey. *Personnel Psychology*, 43, 467-500.
- Tella, A. (2011). Reliability's and factor analysis of a blackboard courses management system success: A scale development and validation in an educational context. *Journal of Information Technology Education*, 10, 55-80.
- Turner, A. N., & Lawrence P. R. (1965). *Industrial jobs and the worker*. Boston: Harvard University Graduate School of Business Administration.
- Yousef, D. A. (2001). Islamic work ethic: A moderator between organizational commitment and job satisfaction in cross-cultural context. *Personnel Review*, 30, 152-169.

Received 23<sup>rd</sup> August, 2016

Revision received 5<sup>th</sup> April, 2019