

# Moderating Role of Cognitive Style in Decision Making on the Relationship between Satisfaction Factor and Turnover Intention

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*The aim of the paper is to identify the moderating effect of analytical cognitive style on the relationship between salary satisfaction and turnover intention among academicians. The survey approach questions were used in order to collect the primary data from informants. Total 502 complete questionnaires were collected back and used in the analysis. SPSS 21 was used for developing database for analyzing data. The bivariate correlation and hierarchical multiple regression was used in analysis. The results of correlation revealed the significant relationship between salary and turnover intention, salary and analytical cognitive style, analytical and turnover intention. The academicians were found satisfied from the salary packages. The analytical cognitive style was found acting as a moderator between salary satisfaction and turnover intention. Complete moderation has occurred. So this study introduced the new model of job satisfaction with novel results of moderation in the theory of job satisfaction.*

Key words: Salary; Analytical Cognitive Style; Intuition Cognitive Style; Turnover Intention

## Introduction

Since a lot of studies have been done on the turnover and job satisfaction relationship by using different variables as moderator and mediator, as far as there is limited research on the job satisfaction and turnover intention using cognitive style as moderator or mediator, in Pakistan especially in the Khyber Pakhtoon Kwa province there is need to do research by using cognitive style as a moderator because there is no such research done by using the cognitive style as moderator in KPK Pakistan. The main aim of a moderator is to strengthen the relationship between the job satisfaction and turnover intention, and it will be easy to understand by the workers to make a decision. So cognitive style is used as

a moderator in this study. It is believed that job satisfaction and turnover intention is linked strongly.<sup>1</sup> Turnover intention has been associated with many factors such as job satisfaction, commitment and roles of employees.<sup>2</sup> In addition, according to March and Simon (1993) job satisfaction was one of the factor, which is directly related to turnover intention. Job satisfaction consists of satisfaction, colleagues, supervision, promotion, work environment, salary and work itself.<sup>3</sup> This study aims to investigate the relationship between job satisfaction and turnover intention. In addition this study also focuses on moderating the role of the cognitive style within the relationship which targeting at higher education institution lecturers in Pakistan. This study is about filling the gaps in the theory of job satisfaction and also filling the gap in the methodology so cognitive style is added in this study and instruments of job satisfaction, turnover and cognitive style are also validated in this study. Turnover intention and job satisfaction both are the results of individual decision making. Therefore cognitive style as moderator, which is a simple measurement of how people using their brain to make decision, is crucial to be included in this study suggested by Judge and Klinger (2001).

### ***Problem Statement***

Most of the previous studies in Pakistan were focusing on job satisfaction and turnover intention, but these previous studies were lacking cognitive style and method or approach used, mostly researchers used single method of data collection.<sup>4</sup> In order to cover and fill those gaps, the next section discussing the gaps as mentioned in above discussion.

### ***Theoretical Gaps in Knowledge***

It is believed that decision making is linked to job satisfaction and turnover intention. Turnover intention is the final step in the cognitive process of decision making whether to stay in the job or leave.<sup>5</sup> So this gap is filled in this paper using

<sup>1</sup> Smith, A. – Oczkowski, E. – Smith, C. S. (2011). “To have and to hold: modelling the drivers of employee turnover and skill retention in Australian organizations”. *The International Journal of Human Resource Management*, 22, 395–416.

<sup>2</sup> March, James G. – Simon, Herbert A. (1993). *Organizations*. Cambridge, MA: Blackwell.

<sup>3</sup> Khan, S. – Nawaz, A. – Jan, F. A. (2012). Impact of demographic diversities on the job satisfaction and its consequences: Case of academicians in higher learning institutions of Pakistan (application of stepwise multiple regression). *Global Journal of Management and Business Research*, Vol. 12 (Issue 19).

<sup>4</sup> Sattar, A. – Shadiullah. (2011). *The job satisfaction of district officers in Khyber Pakhtoon KhwaPakistan*. Thesis Gomal University.

analytical and intuition cognitive style as moderator in the theory of Herzberg theory of job satisfaction. According to Judge and Klinger (2001) Mughal and Busari, (2015) cognition is the most overlooked and ignored area in the field of job satisfaction. So they suggested some variables which can be used as moderator in the models and theories of job satisfaction so this study is about job satisfaction so cognitive style is added in the theory of job satisfaction given by Herzberg. The point to be noted that which cognitive style need to be used in this study, so cognitive style introduced by Allinson and Hayes (1996) is used in this study because this study is about job satisfaction turnover and cognitive style.

## **Background and Hypotheses Development**

### ***Job Satisfaction Definition***

In defining job satisfaction, Illies and Judge (2004) argued that “it is representative of the emotions.” But also supported the idea that researcher must give focus to the cognition. Likewise, number of factors in job satisfaction such as satisfaction, colleagues, supervision, promotion, work environment, salary and work. In addition, job security, satisfaction, autonomy and responsibility all influence the turnover intentions.<sup>6</sup> There are context factors and content factors of job satisfaction.

### ***Turnover Intention Definition***

It is defined by Jacob and Roodt (2007) that: “Turnover intention is the mental or mind decision which is prevailing in the approach of the individual with the preference to a job whether to carry on or leave the job.” In organizational behavior

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<sup>5</sup> Hom, P. – Griffeth, R. (2000). *Employee turnover*. Cincinnati: South-Western Publishing; Lofstrom, E. (2005). *Intuition and Analysis at Work. The Role of Cognitive Style in Experiences of Work Contexts*. Helsinki: University Press; Mughal, Y. H. et al. (2016). Synthesizing the theories and models of cognitive style: reviewing the literature. *Science International* (Lahore) 28 (2), 1463–1468; Mughal, Y. H. et. al. (2016). Level of Job satisfaction and turnover intention among academicians. *The Social Sciences* 11 (7), 1362–1372; Mughal, Y. H. – Busari, A. H. (2015). Moderating intuition effect on cognitive style relationship concerning promotion and turnover intentions among academicians. *Science.International* (Lahore) 27 (6), 6375–6380.

<sup>6</sup> Boxall, P. et al. (2003). “Labour turnover and retention in New Zealand: The causes and consequences of leaving and staying with employers”. *Asia Pacific Journal of Human Resources* 41, 195–214.

literature turnover intention attracts the interest of the researchers because of two reasons. Firstly is due to its psychological dimension and secondly is an economic dimension.<sup>7</sup> Similarly, turnover intention is the mental or mind decision which is prevailing in the approach of the individual with the preference to a job whether to carry on or leave the job.<sup>8</sup>

### ***Turnover Intention in Higher Education Institutions***

Turnover intention in education sector is affecting and harming the output of the HEIs due to number of lecturers leaving the jobs. Some points have been given by recent studies about turnover intention and retention of the faculty members, which factors make it clear to employees that whether they will stay or leave the job.<sup>9</sup> Organizations can increase their performance by controlling the turnover intention.<sup>10</sup> Also higher education is playing an important role in improving and polishing the skills of the individuals.<sup>11</sup>

### ***Allinson and Hayes Dimensions of Cognitive Style Index***

Allinson and Hayes (1996) named this single one dimension construct as the intuition-analysis dimension, according to them the intuition is based on immediate or spontaneous judgment or point of view which is based on feelings while on the other hand the analysis is defined as the point of view or judgment which is based on the mental reasoning. The scale which they developed it and named it was, cognitive style index and it has 38 items or questions in which 21 items or questions are representative of analyst dimension which is using a trichotomous scale (true, uncertain and false) its scoring is positive. On the other

<sup>7</sup> Price, J. (2001). Reflections on the Determinants of Voluntary Turnover. *International Journal of Manpower* 22, 600–624; Sezer, O. – Zhang, T. – Gino, F. – Bazerman, M. H. (2016). Overcoming the outcome bias: Making intentions matter. *Organizational Behavior and Human Decision Process*, Vol. 137, 13–26.

<sup>8</sup> Jacobs, E. – Roodt, G. (2007). The development of a knowledge sharing construct to predict turnover intentions. *Aslib Proceedings. New Information Perspectives*, 59 (3), 229–248.

<sup>9</sup> Sanyo, R. – Lee, Y. (2003). *Examining the Role of Management in Turnover: A Contingency Approach*; Al-Omar, A. (2010). Faculty Members' Intentions to Stay in Jordanian Public Universities. *IJAES* 1(1), 27–35.

<sup>10</sup> Sanyo, R. – Lee, Y. (2003). *Examining the Role of Management in Turnover: A Contingency Approach*.

<sup>11</sup> Fatima, G. – Redman, W. (2012). Impact of Role (Ambiguity and Conflict) on Teaching Assistants' Satisfaction and Intention to Leave: *International Journal of Business and Management* 7 (16).

side the remaining 17 items or questions shows intuitive style its scoring is negative. These all questions or items are added together to make a new single or one index. Sadler-Smith, Spicer and Tsang (2000) have reported that authors and researchers has reported the reliability of the cognitive style index ranging, from 0.84 to 0.92 but the other researchers has reported the reliability of CSI 0.70 also in replication studies done by them. In this study the already established scale cognitive style index (CSI) introduced and developed by (Allinson & Hayes, 1996).<sup>12</sup> The cognitive style index is the main part of the debate in this study.

### ***Relationship between Job Satisfaction Factor (Salary) Turnover Intention and Cognitive Style Decision making***

Recently in past ten years the researchers have increased the area of research and included more human resource practices to investigate the effect of job satisfaction and commitment on turnover intention.<sup>13</sup> Moreover, Scott et al., (2003) identified that decision making is linked with the increase in the job satisfaction and decrease in the turnover intention. Conversely, Simons and Jankowski, (2008), investigated that communication gap between the employees and management and less opportunities, increased the turnover intention, but it was identified that decision making may have differing effects, on the turnover intention. Similarly, turnover intention is the cognitive process of thinking and planning and desire, or needs to leave the job.<sup>14</sup> Moreover, in the literature of the turnover intention it is agreed that the turnover intention is the final and the last step in the cognitive process of the decision making process of turnover intention (Hom & Griffeth, 1995).

*H1: There is significant relationship between Salary satisfaction and Turnover intention*

*H2: There is significant relationship between Analytical cognitive style and salary satisfaction.*

*H3: There is significant relationship between Analytical cognitive style and Turnover intention.*

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<sup>12</sup> Allinson, C. W. – Hayes, J. (1996). “The Cognitive Style Index: A measure of intuition-analysis for organizational research”. *Journal of Management Studies*, Vol. 33, 119–135. DOI: 10.1111/j.1467-6486.1996.tb00801.x.

<sup>13</sup> Smith, A. at al. (2011). “To have and to hold: modelling the drivers of employee turnover and skill retention in Australian organizations”. *The International Journal of Human Resource Management* 22, 395–416; Alfes, K. at al. (2013). “The link between perceived human resource management practices, engagement and employee behaviour: a moderated mediation model”. *The International Journal of Human Resource Management* 24, 330–351.

<sup>14</sup> Mobley, W. H. at al. (1979). A Review and Conceptual Analysis of the Employee Turnover Process. *Psychological Bulletin* 86, 493–522.

*H4: There is significant moderating by analytical cognitive style between salary and turnover intention.*

## **Methodology and Research Design**

### *Research Design*

All most majority of researchers used survey questionnaires for organizational attitudes of the workforce e.g. Beyth Merom et al., (2006) lecturers of universities Chughtai and Zafar, (2006) and Malik et al., (2010), consequences of organizational commitment for lecturers in Pakistani universities, Due to the most common method and popular method this research also used the same research design using structured questionnaire, literature help a lot to extract that questionnaire. Quantitative study helps the researcher to collect the big amount of data. It is time saving and also cost saving. That's why this study used quantitative survey approach.

### *Population and Sample Size*

Yamane (1967) formula was used to select the sample size. There are total 2793 academicians in KPK state. Yamane formula gave 350 sample size but researcher distributed double 700 as 350 is the minimum sample size. Total 502 complete questionnaires were collected back for analysis and showing more than 70% response rate.

### *Measures*

The instruments used in this study to measure the job satisfaction, turnover intention, and cognitive style were paper based and web based online questionnaire. They were adopted and used in this study. They were as follows.

1. Holtum and Oudejans 2007.
2. Allinson and Hayes (1996)
3. Cohen (1993) and Boshoff Van, Hoole, Owen, (2003).

The Job Descriptive Index was adopted from Holtum and Oudejans (2007). It is seven item scale for seven facets of job satisfaction i.e. satisfaction, colleagues, supervision, promotion, work environment, salary and work. Cohen (1993) developed the three items scale in order to measure the turnover intention, which has been used in South Africa by Boshoff et al., (2003), the present study used the same questionnaire. And cognitive style is measured by using and adopting CSI. The quantitative questionnaire survey was conducted in KPK state of Pakistan from different public and private universities lecturers, assistant professors,

associate professors, and professors. Total 502 completed questionnaires were collected back. Concerning (376 males, 126 females). While open ended questionnaire was developed by Grace Davis was adopted from that researcher.

### *Procedures*

The questionnaire was distributed among the lecturers of higher education institutions of Khyber Pakhtoon Khwa province of Pakistan, the questionnaire were distributed in Peshawar, Dera Ismail Khan, Abbot Bad, Mansehra, Bannu, Kohat, Karak, and 502 completed questionnaires were received back. The lecturers included were universities' lecturers. The questionnaire include five sections, first section includes seven items on job satisfaction (satisfaction, colleagues, supervisor, job security, environment, salary work) five point Likert scale was used, second section includes items on turnover intention five point Likert scale was used, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree. For third section cognitive style, cognitive style index was used it has 38 items, 21 items for analysis and 17 items for intuition having values for analysis 2 = true, 1 = uncertain, 0 = false but for intuition it has values like 0 = true, 1 = uncertain and 2 = false. Fourth section was consist of open ended questions and fifth last section was consist of five demographic variables, gender, age, length of service, sector and qualification.

### *Data analysis*

Hierarchical Multiple regression suggested by Field, (2009), and Aiken and West (1991), and bivariate correlation has been used to identify the best fit model. In regression analysis the variables are entered according to the theoretical consideration. First the mean centered independent variable salary is entered then means centered moderator analysis and then intuition are entered then their product terms are entered in the regression equation.

### **Results Correlation**

The correlation Pearson moment between salary and turnover intention is  $r = -0.405$ ,  $P < 0.001$ . it means that correlation between salary and turnover intention is significant and negative and weak correlation. The negative sign shows the direction of the relationship. It means that when the salary satisfaction of the lecturers of higher education is high in Khyber Pakhtoon Khwa province Pakistan than their level of turnover intention will be low, and when the satisfaction from the salary will be low than the turnover intention of the lecturers will be higher.

Hence, the hypothesis 1 is accepted. The Pearson moment correlation between mean centered salary and mean centered analytical is found weak but significant and positive, i.e.  $r=0.147$ ,  $P=0.001$ , it mean that when lecturers use analytical decision making it will affect the relationship between the salary satisfaction and the analytical decision making so hypotheses 2 is also accepted. Now, the correlation between analytical cognitive style and turnover is  $r = -0.094$ ,  $p < 0.05$  so it is weak but significant so hypotheses 4 is also accepted. See Table 1.

**Table 1.** Correlations.

		<b>Correlations</b>			
		Salary	Analytical	Intuition	Turnover Intention
Salary	Pearson Correlation	1			
Analytical	Pearson Correlation	.147	1		
Turnover Intention	Pearson Correlation	-.405	-.094	-.04	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

### **Moderation Method**

The process by Baron and Kenny (1986) has multicollinearity problem, when two variables are highly correlated than collinearity exists that's why Aiken and West (1991) suggested mean centered procedure for variables. The hierarchical multiple regressions is used on basis of past work and it is up to researchers in which order researcher enter the independent or predictor variables into the regression. And these independent variables should be entered into the regression according to their importance or order or theoretical consideration. Once all the independent variables entered now new variables should be entered in to regression equation or hierarchically (Field, 2009).

### **Analytical added as Moderator**

For lecturers concerning turnover intention the mean centered salary shows R square = 0.164, beta =  $-0.405$   $P < 0.001$ , in model 1. The F ratio was  $F = 98.079$  and its P value was  $P = 0.000$ . The  $F^2 = 0.1962$  shows it has medium effect. In model 2 the



mean centered analysis was added with mean centered salary and turnover intention in raw form the R square = 0.165, R square change = 0.001, the beta for salary was Beta = -0.400 was significant at  $P < 0.001$  and beta for analysis Beta = -0.035, was not significant at  $P = 0.400$ . The F ratio was  $F = 49.367$  and its P value was  $P = 0.000$ . The  $F^2 = 0.1976$  shows it has medium effect. In model 3 the product term of mean centered salary and mean centered analysis was entered into regression analysis and was found R square = 0.189, R square change = 0.024 it means that analysis explained 2.4% of the variance between the salary and turnover intention. The values of R square and change in R square, changes in model 3 as compared to model 2. The beta value for salary Beta = -0.393  $P < 0.001$ , for analysis beta = -0.079  $P = 0.064$ , for product term CSalaryCA beta = -0.160,  $P < 0.001$ . It means that analysis acts as moderator significantly between the salary and turnover intention. The F ratio was  $F = 38.621$  and its P value was  $P = 0.000$ . The  $F^2 = 0.2330$  shows it has medium effect. For r square change, The  $F^2 = 0.0246$  shows it has small effect. See Table 2.

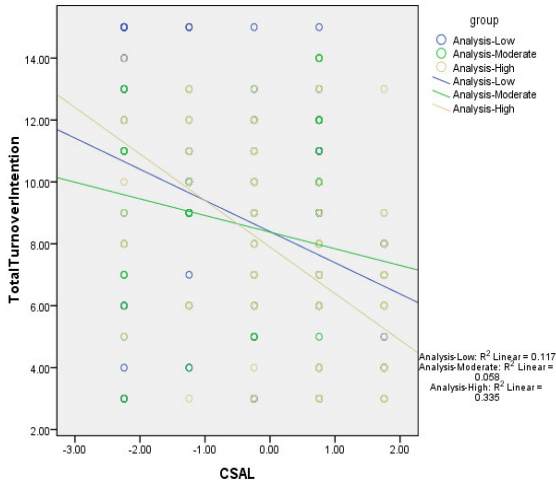
**Table 2.** Moderating effect between mean centered variables.

DV	IV	R	R <sup>2</sup>	adjR <sup>2</sup>	R <sup>2</sup> C	F Δ	B	Beta	Sig
<b>Model 1</b>									
TI	Constant	0.405	0.164	0.162	0.164	98.07	8.153		0.000
	C_Salary							-0.405	0.000
<b>Model 2</b>									
TI	Constant	0.406	0.165	0.162	0.001	0.711	8.153		0.000
	C_Salary							-0.400	.000
	C_analysis							-0.035	.400
<b>Model 3</b>									
TI	Constant	0.434	0.189	0.184	0.024	14.465	8.222		0.000
	C_Salary							-0.393	0.000
	C_Analysis							-.079	0.064
	CSalaryCA							-0.160	0.000

Interaction effects of analysis on salary and turnover intention

After centralizing variables and entering into regression the next step was to check and calculate the interaction effects of the moderator whether the moderator is having low, moderate or high interaction affects between the relationship of salary and turnover intention. It can be seen in the below graph the blue line shows the low analysis and green line shows the moderate or medium analysis and the yellow line shows the high analysis interaction effects. It was noted in the graph that analysis-low in the graph has  $R^2 = 0.117$  when it's square root was taken it was correlated 0.342 between the salary and turnover intention.

In the same way analysis-moderate has  $R^2 = 0.058$  square root of this value shows 0.240 it means that analysis, moderate correlated at 0.3240 with salary and turnover intention. In the same way analysis-high  $R^2 = 0.335$  its square root was taken and value was 0.57887 it means that analysis high interact at 0.5787 with salary and turnover intention. The analysis high has a strong regression effect, correlation between salary and turnover was 0.5787 for teachers having high analysis level.



**Figure 2.** Interaction between Salary, Turnover and Analysis.

## Discussion and Conclusion

The results and findings of this study shed light on the satisfaction of academicians from their salaries and satisfaction and preferred styles of decision making and in turn their intention about turnover. In this study it is clear that satisfaction from salary and turnover intention has negative relationship with each other (Miceli & Lane, 1991). Also analytical and intuition cognitive style has significant relationship with salary satisfaction. But analytical cognitive style is significantly related with turnover but intuition is not related with turnover. It is concluded that when the academicians are allowed to take part in decision making and use analytical decision making cognitive styles on basis of past facts and logical comparison of their salaries with the other organizations of same industry they found it significant but with turnover intention only analytical logical style is related. It means that academicians while thinking about the turnover used analytical style means based on facts and figures. So it means that lecturers used

rational thinking for turnover. They make decision on basis of step by step process. These results are in line with the previous results.<sup>15</sup>

### **Limitations and Recommendations for Future Work**

This study has collected data from one state so the findings of the study are not generalizable to all the states. And this study has used sample size from one state so this study has second limitations. Findings can be generalizable to one state only. The future researches can use the other big sample size for example the sample size of two states of Pakistan and can collect data using longitudinal and experimental methodologies. Future studies can also use other dimensions of the cognitive style like planning, knowing and creating (Cools, 2009).

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<sup>15</sup> Busari, A. H. – Mughal, Y. H. (2017). Two way interaction between lower order terms of left brain and right brain cognitive style and relationship between satisfaction and turnover intention. *International Journal of information system and Social Change*. Vol 8 (Issue 1), 71–83; Busari, A. H. et al. (2017). “Analytical cognitive style moderation on promotion and turnover intention”. *Journal of Management Development*, Vol. 36 (Issue 3).