

Discriminant Function Analysis of Job Satisfaction and its Determinants Among Service Sector Employees

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Abstract:- Based on the Social exchange theory and Social characteristics theory this study employs discriminant function analysis (DFA) to identify the various factors that influence job satisfaction. Consequently, the study employs discriminant analysis in order to shed light on the variables that differentiate between employees with low and high job satisfaction. Employees from organisations in Uttar Pradesh, Rajasthan, and Delhi, India, were surveyed for data. The results indicate that ethical climate, organisational commitment, organisational citizenship behaviour, and organisational justice have a significant impact on job satisfaction. The accuracy of the prognosis of job satisfaction bifurcation based on DFA is 86%.

Keywords:- Job Satisfaction, Ethical Climate, Organisational Commitment, Organizational Justice, Organizational Citizenship Behavior, Discriminant Function Analysis

I. INTRODUCTION

Job satisfaction (JS) is frequently interpreted as an emotional reaction to a value judgment made by a specific employee and is a consequence of the essential job values that employee feels have been met (Henne and Locke, 1985). Hence, the degree of value fulfilment and value importance determine the amount of satisfaction or dissatisfaction with work (Locke and Latham, 1990). According to studies, job satisfaction is crucial for developing numerous positive work-related outcomes (Aselage and Eisenberger, 2003; Yoon and Suh, 2003). JS depends upon several individual and organizational level variables, and the notable amongst them are OJ (Ambrose et al., 2007; Rego, Lopes and Cunha, 2009; Rego, Machado, Leal and Cunha, 2009), OCB (Gonzalez and Garazo, 2006; Nadiri and Tanova, 2010), and OC (Price and Mueller, 1981; Bateman and Strasser, 1984; Curry et al., 1986; Vandenberg and Lance, 1992).

Theoretically, considerations on employee satisfaction in the service environment and its impact on organisational performance are supported by the service-profit chain and service climate models (Brown and Lam, 2008). The service-profit chain theory states that employee productivity and loyalty increase value provided and consumer

impression of service quality, which in turn increases customer satisfaction. Retention of customers necessitates satisfaction, which in turn encourages growth and profitability (Heskett et al., 1994). According to the service climate framework, organizations can encourage behaviors that result in favorable client reactions by providing resources, creating procedures that make service delivery easier, and rewarding service excellence (Schneider, 1980).

➤ *Ethical Climate (EC) and Job Satisfaction (JS)*

The ethical climate is a type of shared code and informal perceptions of organization- al arrangements that shape matters about ethical issues within a company (Victor & Cullen, 1988). Employees are guided by the ethical climate to recognise what is appropriate and inappropriate behaviour (Teresi et al., 2019). Job satisfaction was identified by the researchers as a common and significant consequence of an ethical climate (e.g., Ahanchian & Ganji, 2017; Asgari et al., 2019; Olayiwola, 2016). According to numerous studies (e.g., Asgari et al., 2019; Zden et al., 2019), ethical climate can favourably influence job satisfaction. According to research conducted previously (Jaramillo et al., 2006; Schwepker, 2001), an employee's perceptions of the ethical climate within his or her organisation is what ultimately leads to job satisfaction. According to several researchers (like Morris and Bloom, 2002), workers who are employed in organizations with a more pleasant work environment are more likely to be satisfied with their jobs.

➤ *Organizational Justice (OJ) and Job Satisfaction (JS)*

According to Irving et al. (2005), an employee's view of the fairness of the organization's activities correlates with a number of positive employee outcomes and predicts a variety of attitudes and behaviours at work. Employees' JS, on the other hand, results from an assessment of a number of aspects of the job, including the compensation, the potential for advancement, the supervisors, and the coworkers (Ivancevich and Matteson, 2005). We think that different levels of fairness can result in different outcomes for particular employees (e.g., Skarlicki and Folger, 2003). Additionally, justice is a crucial element in the study of organisations and has been found to have an impact on a number of other outcomes, either directly or through mediating variables (Irving et al., 2005; Rego, Lopes, and Cunha, 2009; Rego, Machado, Leal, and Cunha, 2009).

Since OJ is the subject of study that has received the most attention, Colquitt et al. (2001) found that OJ is a reliable and powerful predictor of employees' JS. In a meta-analytic analysis, Colquitt et al. (2001) found that employees' positive perceptions of OJ lead to improved JS. Further, DeConinck and Stilwell (2004) found that distributive justice was a significant predictor of pay satisfaction while procedural justice had a direct impact on employees' satisfaction with their supervisor.

➤ *Organizational Citizenship Behaviour (OCB) and Job Satisfaction (JS)*

The relationship between JS and OCB has been studied by a variety of scholars, and it is well established in the literature. The associations between JS and OCB have received support from numerous research. For instance, Williams and Anderson (1991) hypothesize a favourable relationship between JS and OCB. In general, research that empirically examined this relationship identified a positive relationship between OCB and JS. (Foote and Tang, 2008; Gonzalez and Garazo, 2006; Nadiri and Tanova, 2010). Given the reciprocal association between JS and OCB (e.g., Podsakoff et al., 1993), it is unlikely that researchers will soon be able to conclusively determine the direction of causality between JS and OCB. JS is expected to be highest in organisations where OCB is prevalent, even though directional causality is still unclear due to a plethora of evidence that points to the existence of such a connection. Podsakoff et al., 1993; Foote and Tang, 2008).

➤ *Organizational Commitment (OC) and Job Satisfaction (JS)*

The results of numerous studies have shown a significant link between organisational commitment and job satisfaction (Porter et al., 1974). Numerous studies have looked into the relationship between organisational commitment and job satisfaction (Moynihan and Pandey, 2007; Morrow, 2011). According to earlier research (Colakoglu et al., 2010; Yücel, 2012; Fu and Deshpande, 2014), organisational commitment and job satisfaction are strongly correlated. On the other hand, there is disagreement over how the relationship continues to develop. As it deals with an employee's positive attitude towards the organisation rather than her own job, organisational commitment can be viewed as an extension of job satisfaction. Organisational commitment, which is characterised by the employee's attachment to the organisation and willingness to make sacrifices for the organisation, is characterised by significantly greater emotions. People are less likely to quit their jobs if they are more committed to an organisation.

➤ *Objectives:*

To determine various parameters affecting job satisfaction using discriminant function analysis (DFA).

II. METHODS

➤ *Sample*

The sample was a convenience sample of ($N = 248$: mean age = 34.54 years; $SD = 7.41$) professional (77% graduate; 23% post graduate; 77.4% male; 22.6% female) employed in different service sector organisational settings in Uttar Pradesh, Rajasthan and Delhi, India. Low and high scores on job satisfaction (subjects falling below and above Mean $\pm 1SD$) were screened out and their corresponding scores on ethical climate, organizational commitment, organizational citizenship behavior and organizational justice were taken into consideration to perform discriminant function analysis.

➤ *Instruments Used*

• *Ethical climate Scale.*

The popular and widely used scale developed by Victor and Cullen (1988) has been adapted to measure the ethical climate construct. The scale's 26 statements categorise the five main types of ethical climate that prevail in an organisation.

➤ *Organizational Commitment Questionnaire.*

Meyer, Allen, and Smith (1993) and Meyer and Allen (1997) used the organisational commitment questionnaire (OCQ) to measure organisational commitment. 22 items on a 7-point Likert scale were included in the survey. The sample responses include: "I would be very happy to spend the rest of my career with this organisation" (AC); "Right now, staying with my organisation is a matter of necessity as much as desire" (CC); and "I would feel guilty if I left my organisation now" (NC).

➤ *Justice Perception Scale.*

Parker, Baltes, and Christiansen (1997) developed this measurement. As an indicator of distributive justice, the measure uses three items to evaluate employee perceptions of fairness in the allocation of rewards and recognition. As an indicator of both the "voice" and "choice" aspects of procedural justice, it uses four items to measure employee perceptions of the extent to which they are given input and involvement in decisions. The measure evaluates opinions about the organisation as a whole, rather than specific policies or procedures. The alpha coefficient for distributive justice was 0.88. The procedural justice alpha coefficient was 0.74 (Parker et al., 1997).

➤ *Organizational Citizenship Behaviour Scale.*

Podsakoff, MacKenzie, and Fetter (1990) developed this OCB measure. The measure uses 24 items to describe five aspects of OCB. These are selflessness, responsibility, sportsmanship, courtesy, and social virtue. The coefficient alpha values for altruism went from .67 to .91, for sportsmanship from .76 to .89, for courtesy from .69 to .86, and for civic virtue from .66 to .90. Alpha for being careful was .79. The coefficient alpha for the single OCB scale was .94.

➤ *Job Satisfaction Scale.*

This measure of job satisfaction, developed by Brayfield and Rothe (1951), uses six items to describe overall job satisfaction. The items form a one-dimensional measure of overall job satisfaction.

➤ *Data analysis*

Data were analysed using IBM SPSS Statistics for Windows, Version 20.0. Stepwise discriminant function analysis (DFA) was used to determine which factors could best differentiate high job satisfiers and low job satisfiers.

III. RESULTS AND DISCUSSION

With the help of the discriminant analysis, a prediction model for group classification was created. Based on the independent variables, the discriminant function gave the

best classification between the groups. Here, DFA was used to determine the significance of ethical climate, organizational commitment, organizational citizenship behaviour and organizational justice in predicting the job satisfaction of each employee. In order to conduct discriminant analysis, the entire sample was divided into two groups based on job satisfaction: the low job satisfaction group (N =48) and the high job satisfaction group (N = 45). We have attempted to identify a discriminant function that incorporates these variables so that the job satisfaction of each employee can be predicted. This will indicate whether the participants of a group are unknown. In other words, this function will indicate whether an employee will be satisfied well or not based on his ethical climate perception, organizational commitment, organizational citizenship behaviour and organizational justice perception.

Table 1 Significance test of Wilks' Lambda values for variables.

Variable	Wilks' Lambda	F	df1	df2	Sig.
Ethical Climate	.664	46.129	1	91	.000
Organizational Commitment	.682	42.346	1	91	.000
Organizational Citizenship Behaviour	.705	37.996	1	91	.000
Organizational Justice	.613	57.416	1	91	.000

Table 2 Standardized Canonical Discriminant Function Coefficients

SN	Variables	Standardized Canonical Discriminant Function Coefficients
1	Ethical Climate	.188
2	Organizational Commitment	.371
3	Organizational Citizenship Behaviour	.263
4	Organizational Justice	.542

Table 3 Classification Function Coefficients

SN	Variables	Low Job Satisfaction	High Job Satisfaction
1	Ethical Climate	-.016	-.001
2	Organizational Commitment	.147	.197
3	Organizational Citizenship Behaviour	.191	.218
4	Organizational Justice	.640	.856

Table 4 Classification Results

Group	No of cases	Predicted Group Membership	
		1.00	2.00
Group1 (Low Job Satisfaction)	48	39(81.3%)	9(18.8%)
Group2 (High Job Satisfaction)	45	4(8.9%)	41(91.1%)
86.0% of original grouped cases correctly classified			

The analysis revealed the variables that contributed to the differences between employees with high and low job satisfaction. The canonical correlation coefficient indicates that the model accounts for 49.42% of the variance (square of canonical correlation value 0.703) in the dependent variable, and the eigenvalue (0.976 < 0.001) confirms that the function discriminates between the two groups. A Wilks' lambda value of 0.507 indicated that this first discriminant function was sufficient for further analysis.

As the difference in mean of discriminant scores between the two groups is found to be significant, the investigator estimated another set of coefficients, standardized canonical discriminant function coefficients

which will help in the calculation of discriminant score of an individual employee using standardized measures of the variables under consideration. As the first variable, organizational justice has high positive coefficient in the function; high value of organizational justice will result in high values of the function. The coefficient corresponding to the variable organizational commitment has also high positive coefficient in the function indicating that the contribution of this variable to the function is less than OJ. The other significant contributors are OCB and EC (table 2).

Fisher's linear discrimination function coefficients are calculated for the high job satisfaction group and low job satisfaction group separately. These values are given as Table 3. Classification function coefficients for each group can be used for assigning new cases to one of the groups.

From table 4, it can be seen that among 48 members in the first group, 39 cases (81.3%) are classified correctly and 9 cases (18.8%) are incorrectly classified. It can also be observed that among 45 cases in group 2, 4 cases (8.9%) are incorrectly classified to group 1, and 41 cases (91.1%) are classified correctly. The percentage of correctly classified cases will be an index of the efficiency of the function derived and table 4 reveals that the percent of correct classification (average of the percent of correct classification in group 1 and group 2) is 86.0.

The findings of the present study reveal that organizational justice, organizational commitment, organizational citizenship behaviour and ethical climate to an extent, help predict the employee's job satisfaction. Among all variables, organizational justice is found to be the major predictor contributing to job satisfaction. Then comes OC, OCB and EC. Previous studies have suggested that JS can be predicted by OJ (Ambrose et al., 2007; Rego, Lopes and Cunha, 2009; Rego, Machado, Leal and Cunha, 2009), OCB (Gonzalez and Garazo, 2006; Nadiri and Tanova, 2010), OC (Price and Mueller, 1981; Bateman and Strasser, 1984; Curry et al., 1986; Vandenberg and Lance, 1992) and EC (Asgari et al., 2019; Özden et al., 2019; Jaramillo *et al.*, 2006; Schwepker, 2001; Morris and Bloom, 2002).

The implications of these findings are significant for service sector organizations seeking to improve employee job satisfaction. Organizations should focus on promoting fairness and equity in their practices and policies, as organizational justice has the strongest influence on employee job satisfaction. This can be achieved by ensuring that employees are treated fairly in terms of compensation, promotions, and decision-making processes. Moreover, fostering a strong sense of commitment to the organization, promoting positive behaviors that benefit the organization (such as going beyond job duties to help coworkers or the organization itself), and establishing an ethical climate that emphasizes ethical behavior, can also positively impact job satisfaction.

Overall, these findings suggest that organizations should invest in promoting a positive work environment that values fairness, commitment, ethical behavior, and positive organizational citizenship behaviors, as these factors can significantly contribute to employee job satisfaction. By focusing on promoting organizational justice, fostering organizational commitment, encouraging organizational citizenship behaviour, and developing a positive ethical climate, organizations can increase the likelihood of their employees experiencing job satisfaction.

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