

Actual Voluntary Turnover, Job Embeddedness, Pay Satisfaction and Moderating Effect of Perceived alternative Job Opportunities: Data Screening and Preliminary Analysis

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Abstract

The primary objective of this paper is to report the collected data regarding the effects of job embeddedness and pay satisfaction on actual voluntary turnover with moderating role of perceived alternative job opportunities. A survey method was employed to administer 354 questionnaires to former faculty members from various public universities across Nigeria. Initial data screening and cleaning were conducted as an attempt to fulfil the assumptions of multivariate analysis. Therefore, the present study performed missing data analysis and an assessment of univariate and multivariate outliers with help of Statistical Package for Social Science (SPSS) version 20. Conclusively, the result revealed that data met the requirements for further analysis.

1. Introduction

In any multivariate analysis, especially where primary data is obtained from surveys, an initial process of screening and treatment of collected data is a necessary and an all-important step needed not only because it assists in ensuring that the subsequent analyses are valid, such as PLS or other parametric or non-parametric statistics when conducted, but, it also helps in detecting any plausible violations of the main postulations regarding the use of multivariate techniques in data analysis (Hair, Money, Samouel, & Page, 2007; Hair, Black, Babin, & Anderson, 2010). Perhaps more importantly, it is visually obvious that failure to note the potentiality of data screening and treatment could adversely affect the quality of the analysis (Hair et al., 2010; Pallant, 2011). It therefore, becomes fundamentally important to acknowledge the significance of initial process as an accomplishment that serves as the basis for meaningful outcome of any quantitative research study. Regrettably, this phase of research is somewhat less undertaken by scholars probably due to the burden linked to it (Hair et al., 2010). But, ignoring this phase of research study would result in output that is of poor quality. For example, Chernick (2008) argued that neglecting this phase of investigation would lead to serious inflation of standard error estimates, as well as underestimation of the significance of a regression-based path coefficient statistically (Ringle, Sarstedt, & Straub, 2012).

Based on the aforementioned, the initial data analyses were carried out to detect and treat missing value and outliers (Tabachnick, & Fidell, 2007), as such the remainder of this paper is presented as follows. In section 2, a detailed review of related literature regarding the phenomenon being investigated was performed. In section 3, we highlighted the methodology employed in the present study, followed by discussions of the findings in section 4. In the final section, conclusion was derived based on the results of the study.

2. Literature Review

Due to the costly and pervasive posture of actual voluntary turnover, a number of factors have been suggested as its predictors in shaping the behaviours of employees at work. To date, some of the predictors include job satisfaction, organizational commitment, job stress, demographic, organizational factors (Harris & Adams, 2007; Hom, Mitchell, Lee, & Griffeth, 2012; Law, 2010; Mobley, 1977). However, one of the key predictors found to influence actual voluntary turnover is job embeddedness (JE). Job embeddedness is a formative multidimensional construct with two dimensions namely organisational embeddedness and community embeddedness, which is defined as extent to which an employee is attached to a job, an organizational setting or immediate community (Lee, Mitchell, Sablinski, & Burton, 2004; Mitchell, Holtom, Lee, Sablinski, & Erez, 2001).

Despite the foregoing empirical studies on the role of job embeddedness in shaping employee behaviour at work, extant literatures reveal that less attention may have been paid to how job embeddedness dimensions might contribute to better understand and comprehend actual voluntary turnover at the workplace. Even if any, they are limited to the influence of JE among samples of healthcare workers (Crossley, Bennett, Jex, & Burnfield 2007; Mitchell et al., 2001), correctional officers (Bergiel, Nguyen, Clenney, & Taylor, 2009), and professionals in the field of finance, (Allen, 2006; Felps, Hekman, Mitchell, Lee, Harman, & Holtom, 2009; Lee et al., 2004) . Hence, there is a paucity of studies on the the role of JE in the academia, with some exceptions of the study by Takawira, Coetzee, and Schreuder (2014). Such neglect

has been unfortunate because to a large extent, the levels of job embeddedness directly influence employee's decisions whether to stay or leave the organisation voluntarily (Lee, Burch, & Mitchell, 2014). Hence, levels of job embeddedness are crucial in mitigating the rates of actual voluntary turnover. Thus, the present study will be significantly different from Takawira et al. (2014) because their work mainly focused on turnover intention. Instead, the present study addresses this gap by exploring the effects of job embeddedness on actual voluntary turnover among faculty members.

Apart from job embeddedness, another important construct found to influence actual voluntary turnover is pay satisfaction, defined as the overall negative or positive feeling or affect that an individual has towards his or her pay (Miceli & Lane, 1991), and a vital indicator of the relative willingness of an employee to stay with or to leave his/her employer (Currall, Towler, Judge, & Kohn, 2005; Tekleab, Bartol, & Liu, 2005). In his discussion on turnover as an individually motivated choice behaviour Campion, (1991) suggested that pay plays an important role in actual voluntary turnover reduction. More so, scholars have reported a negative relationship between pay satisfaction and actual voluntary turnover in a variety of studies (e.g. Borman & Dowling, 2008; Goldhaber, Gross, & Player, 2011; Griffeth, Hom & Gaertner, 2000; Heneman & Schwab, 1985; Panaccio, Vandenberghe, & Ayed, 2014; Stanz & Greyling, 2010).

Yet, despite the above mentioned past studies on the role of these constructs in shaping employee behaviour at work, existing literatures indicate that less attention has been paid to the fundamental assertion on how pay satisfaction influences actual voluntary turnover. Hence, it is reasonable to expect that actual voluntary turnover could be influenced by the level of pay satisfaction. In general, prior research has showed that pay satisfaction is associated with employee performance (Lanying & Fenfen, 2010) work-family conflict (Bhave, Kramer, Glomb, 2012), organisational commitment (Vandenberghe & Tremblay, 2008) and personal characteristics (Achchuthan, Jasingha, & Umanakenan, 2014) among others. More so, in spite of the existing empirical and theoretical evidences to better understand and comprehend the effects of both job embeddedness and pay satisfaction, prior studies have also documented the role of perceived alternative job opportunities in influencing individuals to involve in actual voluntary moves. For instance, in agreement with the social interdependence theory (Thibaut & Kelley, 1959), Hulin, Roznowski, and Hachiya (1985) found that employees are more likely to involve in actual voluntary turnover when an external job market has plentiful job alternatives, many of which offer more or better outcomes than the present position. Likewise, Gerhart, (1990) and Griffeth, Steel, Allen and Bryan (2005) found that when alternative jobs are scarce, actual voluntary turnover is low. Thus, in agreement with these past studies, it is reasonable to argue here that the degree, to which both job embeddedness and pay satisfaction influence actual voluntary turnover vary, and is contingent upon the availability or otherwise of perceived alternative job opportunities. Despite the theoretical role of perceived alternative job opportunities in influencing individual actual voluntary turnover behaviour, to date, there is paucity of empirical studies exploring such possibility.

3. Methodology

Methodology is a statistical process by which a researcher analyses data to better understand the phenomenon been studied. Thus, following data collected from the field, only usable questionnaires were coded and exported into the statistical software. Then the exported data underwent screening to identify data entry errors. Specifically, the data analysis was performed with aid of descriptive statistics using the Statistical Package for the Social Science (SPSS version 20) software. Simple descriptive statistics and tests were conducted to ascertain tests of response rate, participant demographics, non-response bias and common method variance were also carried out. Additionally, all the negatively worded items in the questionnaires were reversed- coded. Likewise, multivariate analysis was also conducted to identify and treat possible missing values and outliers.

The samples in this study were selected from ten private universities located in the southern part of Nigeria using disproportionate stratified sampling technique. A sampling technique is described as being disproportionate when the sample elements are taken from each stratum regardless to any specific percent, but, rather based on number of the sample elements in each of the stratum. As a result, each university was appropriately represented with adequate number of research participants. Applying disproportionate stratified sampling strategy in this research is deemed appropriate because it has been applied in prior studies (Ibrahim & Embat, 2012; Mat & Naser, 2012). In the present study, the unit of analysis is the individual. Hence, former faculty members of public universities were the participants that responded to the survey questionnaire. A total of 354 questionnaires were distributed based on self-distribution technique.

4. Findings and Discussion

4.1 Missing Value Analysis

After the data was imported into SPSS software, initial descriptive statistics was run to determine whether or not there were missing data. Missing values refers to those responses that respondents have not completed. Generally speaking, missing data is a topic that has become not only an issue of serious concern, but, also being popular in virtually every research study. However, the rate at which missing data happens in a study vary so also is the extent of its effects, for example if the rate is below 1%, then there is not going to be any problem, if the extent at which it occurs falls below the rate of 5% it is bearable and may be managed, however, if it reaches 15%, it calls for a drastic measure requiring the use of sophisticated strategy to resolve it (Acuna & Rodriguez, 2004).

For this study, the outcome of the descriptive statistics showed that three cases had seven missing values and appeared to be at random. In particular, pay satisfaction had a missing value; perceived alternative job opportunities had six missing values. But, no missing values were discovered for actual voluntary turnover, and the two dimensions of job embeddedness (i.e., community and organisational embeddedness). Notwithstanding the fact that several techniques for tackling missing data vary, more importantly, there is no one best method, they all are applicable and appropriate; however it all depends on the cost, nature of analysis, and perhaps time constraint. For this study, missing data was handled by replacing the values using expectation maximization (EM) technique because of its unique ability to replace the missing values in terms when data is missing completely at random (Bennett, 2001; Graham, 2012; Karanja, Zaveri, & Ahmed 2013). For this study, missing values were replaced using

expectation maximization, as the data in the present research study were missing completely at random.

4.2 Detection and Treatment of Outliers

While outliers described as data that appear significantly distant from the other data (Veradi & Crux, 2008). The presence of outliers in a data set can otherwise adversely generate biased parameter estimation and ultimately resulting in model misspecification and incorrect outcome. In order to avoid outcome that are biased, it is therefore necessary that data set be scrutinized for outliers prior to any subsequent analysis (Liu Shah, & Jiang, 2004), because it is pointless to carry out analysis when dataset is contaminated with outliers. For the present study, plausible univariate and multivariate outliers were checked, detected and removed, first, by using standardized values with a ± 3.29 z-scores ($p < .001$) (Tabachnick & Fidell, 2007), and secondly, by applying Mahalanobis D2 measure as the recommended rule of thumb in both cases (Tabachnick & Fidell, 2013). Therefore, following these recommendations, two outliers were detected and removed from the dataset.

4.3 Demographic profile of participants

Statistically, descriptive analysis reveals that majority of the participants were male (66.7%) and married (91.1%) possessing masters degree as highest educational attainment (65.7%) and formally were lecturer 11 (37%) and currently as Lecturer 1(38.4%). Similarly, most of the participants left public universities located in southern part of Nigeria(71.8%), and then relocated to a diferent community (89.3%), and receiving higher income in the current universities (90%). On average the age of the research participants was 41.09 years old ($SD = 7.026$), had spent an avearge of 6.80 years ($SD = 4.13$) at former universities and 1.64 years ($SD = 0.687$) in the current universities. Finally in terms of dependents , the research participants had on average 5.26 ($SD = 2.84$) number of dependents.

4.4 Response Rate

The data collection period took about four months. In an attempt to achieve high response rates, follow up messages were made through the use of bulk text massages, series of phone calls and also self-visit were made to the research participants who were yet to complete their questionnaire as reminders. Interestingly, the outcome of these efforts yielded the retrieval of 354 questionnaires, a technique that has evidently proven to be effective (Yim, Anderson, & Swaminathan, 2005). Of the 354 questionnaires administered, 234 were retrieved, and of these 234 questionnaires, 25 were returned uncompleted and therefore excluded from the final dataset, while remaining 218 useable questionnaires were subjected to further analysis as showed in Table 4. 1

Table 4.1

Response rate of the Survey Questionnaire

Response	Frequency/Rate
Number of questionnaires distributed	354
Number of questionnaire retrieved	243
Number of returned and usable questionnaire	218
Number retrieved but excluded	25
Number of questionnaire not returned	111
Response rate	69%
Usable response rate	62%

The 218 useable questionnaires constituted the sample size for the present study representing a valid response rate of 62%. This rate is considered adequate following the suggestion of Sekaran (2010) that a response rate of 30% is adequate for survey. Additionally, the present response rate is also considered adequate based on the outcome of power analysis, which is a statistical procedure for establishing an appropriate sample size for a study (Faul, Erdfelder, Lang, & Buchner, 2007; Faul, Erdfelder, Buchner, & Lang, 2009). The result of the power analysis revealed that total number of questionnaires that were retrieved exceeded the minimum sample size of 77 participants as suggested by the analysis. Therefore, the valid response rate of 62% satisfied the required sample size for further analysis.

4.5 Non- Response Bias

The issue of non-response bias arises when there is a significant difference between responses to survey and non-responses (Lambert & Harrington, 1990). Singer (2006) argued that there is no minimum rate of response below which a survey estimate is necessarily biased, and also there is also no rate of response above which it is never biased. Nonetheless, the need to ascertain the possibility of bias no matter how small the non- response bias has been suggested (Pearl & Fairley, 1985; Sheikh & Mattingly, 1981). Following the suggestion of Armstrong and Overton's (1977), an independent-samples t-test was performed by dividing the research participants were grouped into two major independent samples based on based on early and late responses with regards to five major study constructs (i.e., pay satisfaction, community embeddedness, organisational community, perceived alternative job opportunities, and actual voluntary turnover).

Table 4.3

Independent-Samples T-test for Non-Response Bias

Constructs	Response bias	N	Mean	SD	t-value	p-value
PS_Mean	Early response	172	26.023	2.812	-.495	.621
	Late response	44	26.321	2.751	-.502	.617
JEC_Mean	Early response	172	15.474	1.764	-.848	.397
	Late response	44	15.742	1.770	-.841	.403
JEO_Mean	Early response	172	30.373	3.015	-1.46	.146
	Late response	44	31.096	3.032	-1.44	.153

PA_Mean	Early response	172	24.806	2.634	-.230	.818
	Late response	44	24.987	2.971	-.443	.831
AVT_Mean	Early response	172	16.667	2.010	-.714	.476
	Late response	44	16.968	2.139	-.690	.493

NOTE: PS_Mean= Pay satisfaction, JEC_Mean= Community embeddedness, JEO_Mean= Organisational community, PS_Mean= Perceived alternative job opportunities, AVT_Mean= Actual voluntary turnover. *Significant at $p \leq 0.05$

Result of the test reveals that there is no significant difference between the early respondents and late respondents. It can be concluded the early and late respondents are the same, and therefore, the issue of non-response bias in this data is absent.

4.6 Common Method Variance Test

Richardson, Simmering, and Sturman, (2009, p. 763) define common method variance (CMV) as the “systematic error variance shared among variables measured with and introduced as a function of the same method and/or source.” Given that the data collected on the exogenous construct and that of endogenous constructs were gathered using self-reports, the problem associated with common methods may misconstrue the true nature of the collected data. Hence, this study conducted the Harman single factor test to ensure that there is no variance in observed scores and the correlations between the constructs are not inflated because of the CMV effect. Undoubtedly, however, there have been several arguments on the degree of seriousness of common method variance on data (Bagozzi, 2011). All the same, for the present study, CMV is essentially regarded as an important consideration in data analysis. So, in order to mitigate the CMV effect several procedural and statistical techniques have been established. These include reverse-coding questions, ensuring clarity of indicators or questions, ensuring participants’ anonymity (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) and statistically by applying Harman’s (1960) single factor test

In the present study, all the indicators of the entire study constructs were subjected to a principal components factor analysis, The result of the test showed that no single factor accounted for more than 50% of the variance and only 30.5% of the total variance was accounted by the single factor, suggesting that common method bias does not exist in the present study. This is in congruence with Podsakoff et al. (2003), Kumar (2012) and Lowry and Gaskin’s (2014) standpoint who suggested that the effect of CMV is said to be present when a single factor accounts for more than 50% of the variance.

4.7 Conclusion

In sum, this paper evaluated the collected data through series of statistical techniques in an attempt to ensure that it satisfies the multivariate assumptions. Particularly, as the missing data were thoroughly scrutinized, outliers were detected, treated and removed from the dataset. Hence, it can be finalized that the data was suitable to be subjected to further multivariate analyses that included the evaluation of measurement and structural models.

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