

## **Relationships Among Job satisfaction, Organizational Affective Commitment and Turnover Intentions of University Academicians in Tanzania**

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**Abstract:** Universities play a pivotal role in any country's economic development goal by creating the required human capital, generating and preserving knowledge, and by offering technical advisory services to businesses and communities. Effective and efficient performance of this role depends largely on the quantity and quality of their satisfied and committed academic staff. Universities in Africa, Tanzania in particular, are suffering from low academic staff capacity. Yet such low capacity is further threatened by high rates of turnover. To manage this threat, universities need to manage not only the turnover of their academic staff but also their turnover intentions. Turnover intentions are the best predictor of actual turnover. Managing this threat requires among other things, an understanding of the predictors of turnover intentions. The purpose of this study was to analyze the relationship between two job attitudes (job satisfaction and affective commitment) and the behavioural outcome of turnover intentions. Data was collected through a survey administered on 300 academicians conveniently selected from five public universities in Tanzania and analysed through descriptive statistics, multiple regression analysis, and the Hayes' Process Tool v.3.4.1. Both job satisfaction and affective commitment statistically negatively predicted turnover intentions, even after controlling for the influence of tenure and education qualifications. Affective commitment significantly but partially mediated the job satisfaction – turnover intentions relationship. It is therefore recommended that universities should have in place work systems that are pro-job satisfaction to reduce turnover intentions among the academicians. Moreover, coupling these efforts with measures capable of enhancing affective commitment adds value in managing turnover intentions.

**Keywords:** Job Satisfaction, Affective Commitment, Turnover Intentions, Mediation, Academicians.

## **Introduction**

Universities play a pivotal role in any country's socio-economic development through their key functions of teaching and learning, research, and consultancy. However, universities' excellence in accomplishing this role largely depends on the quality and quantity of their academic staff. The reality on the ground is that the number of academic staff in many African universities, and Tanzania in particular, has been shown empirically to be quite inadequate (Bisaso, 2017; Nyahongo, 2015; Tettey, 2010; URT, 2010). Part of this inadequacy has been blamed on academic staff turnover, particularly voluntary turnover. For example, the turnover rate of academicians in South Africa has been reported to be in the range of 5 to 18 percent (Pienaar and Bester, 2008). In Uganda, 160 out of 1502 left Makerere University in one year – 2011-2012 (Bisaso 2017). The situation in Tanzania is not any better. Nyahongo (2015), for example, reported that 102 out of 840 academicians left the University of Dodoma between 2009 and 2013. Yet another study by Mkumbo (2014) reported the proportion of academicians reporting their desire to leave their job for alternative careers to be at 34.8 percent at St John's University, 39.3 percent at Tumaini University, 39.1 percent at University of Dodoma and 45.5 percent at University of Dar es Salaam. Among the reasons given in the study included the rise in workload and work stress coupled with reduced work autonomy.

Employee turnover is a behavioural outcome that threatens the sustainability of organizations including universities. It challenges human resource managers in their quest to contribute to organization performance (Davidson et al., 2010). Turnover rates in organizations, particularly in universities, negatively affect service quality and productivity (human capital development and knowledge creation), due to loss of knowledge and technical skills. Research has identified five costs associated with employees' turnover. These include, but not limited to, pre-departure costs such as severance costs, recruitment costs, selection, orientation and training costs, and productivity loss costs (Tracey and Hinkin, 2008; Weisberg and Kirschenbaum, 1991). Aldhuwaihi et al. (2012) add to the list, the costs associated with disruption of working teams, knowledge loss, loss of motivation/morale by the remaining employees, as well as the individual's costs associated with loss of seniority and disruption of social life.

For universities, the costs include excessive workload, administrative time to re-schedule lectures and tutorials, the opportunity cost of the time spent on additional classes (e.g. in the form of research and consultancy income lost), and the costs associated with obtaining approvals to hire new staff. Besides, Lambert and Hogan (2009) point out the cost associated with the loss of social networks and loss of quality of services. The institutions' reputation is also likely to suffer as the public may view the rate of academicians' turnover as a sign of a bad organization. Conversely, employees' turnover could be a positive organisational outcome as it allows the organisation to hire new, but more trained and talented employees to replace those who left. Luz et al. (2018) point out more positive outcomes as oxygenation of the organization, reduction of conflicts, increased internal mobility, and stimulation of innovation.

The aforementioned negative and positive outcomes of turnover, call for optimal management, not only of the level but also of the antecedents of turnover intentions to ensure the levels are

appropriate and the negative consequences are minimized (Phillips and Connell, 2003). Several past studies linked turnover intentions to job attitudes as their possible antecedents. Some examined job satisfaction (e.g. Masum et al., 2016), and others examined organizational commitment (e.g. Jonathan, Thibeli, and Darroux, 2013). Yet other studies examined both job attitudes (e.g. Kanwar et al., 2018 and Luz et al., 2018). Also, some examined the link between job satisfaction and organizational commitment (Jonathan, Darroux, and Massele, 2013; Jonathan, Darroux, and Thibeli, 2013). The results, however, are not entirely consistent.

Investigation of these two job attitudes in Tanzania as predictors of turnover intentions is lagging. The few studies on the job satisfaction – turnover intentions link cover the education, health and banking sectors (Amani and Komba, 2016; Jonathan Thibeli and Darroux, 2013; Blaauw et al., 2013; Ngatuni and Matolo, 2018). Although they all consistently reported a negative and significant effect of job satisfaction on turnover intentions, only Amani and Komba's study examined university academic staff. Overall, none of them looked at the two job attitudes together as predictors of turnover intentions. The job satisfaction – organizational commitment link is examined by Jonathan, Darroux, and Massele, 2013; Jonathan, Darroux, and Thibeli, 2013) and both studies reported a significant positive relationship. Amani and Komba (2016), Blaauw et al. (2013) and Ngatuni and Matolo (2018) on the other hand, examined the link between job satisfaction and turnover intentions and reported a significant negative relationship. According to Field (2018), when there are three variables, A, B and C, with A affecting B and C and at the same time B affecting C, a fertile avenue for possible mediation is presented. The results summarized here suggest that job satisfaction affects both organizational commitment and turnover intentions, and at the same time organizational commitment affects turnover intentions. This situation suggests a possible mediation of organizational commitment in the job satisfaction-turnover intentions relationship. However, this possibility has not been investigated in Tanzania.

This study, therefore, analysed the relationships among academicians' job attitudes of job satisfaction, and organizational affective commitment as well as the outcome of intention to leave their respective universities. The objective being to determine whether the academicians' level of turnover intentions is predicted by the two job attitudes of job satisfaction and organizational commitment. Besides, the study assessed whether the effect of job satisfaction on turnover intentions is mediated by organizational commitment. Lastly, the study established whether job satisfaction and organizational affective commitment have a unique effect on the turnover intentions after controlling for the effect of tenure and educational qualifications, the two demographic variables believed to shape academicians desire to quit, as suggested by the side bets theory (Becker, 1960)

The study borrowed a leaf from the social exchange theory (Blau, 1964; Homans, 1958) to achieve its objectives. According to this theory, there exists a reciprocal relationship between two parties, which create obligations in response to the beneficial acts of the other part. The study argues that the academicians' turnover intentions may reduce and affection increase as a reciprocal response to the satisfaction they draw from the job and the university (employer). That is, when academicians feel that their university is engaged actively in policies and human resource management practices that give them satisfaction with their job, they may feel obligated

to reciprocate that treatment. Among the ways in which they may do so is by committing emotionally and affectionately to the university, which in turn lowers their intentions to leave the university. This happens because the reciprocal exchanges between them and their employer are important components of the social exchange. Besides, the training and development of academicians take heavy investment in terms of time, energy and money. This coupled with some attitude outside the university community that a doctoral qualification is more fitting for university teaching, makes the turnover decision difficult, not because of satisfaction with the job but because of the value of the potential losses (side bets) the academicians may suffer should they decide to leave their university's academic post. Thus, Becker's (1960) side bets theory is also brought in to assess the effect of tenure and education qualifications first as predictors of turnover intentions and secondly as control variables, so that the unique contribution of job satisfaction and affective commitment is estimated free of the influence of these two demographics.

The study contributes to the turnover intentions' literature in higher education in several ways. It contributes empirical evidence from a frontier market on (i) the job attitudes of job satisfaction and organizations commitment as predictors of turnover intentions (ii) organizational commitment as a mediator in the relationship between job satisfaction and turnover intentions; and (iii) unique contribution of the two job attitudes (job satisfaction and organizational commitment) after controlling for the influence of tenure and educational qualification. In doing these, the study also contributes evidence in support of the social exchange and side bets theories.

## **Literature Review**

This section reviews theory and previous research on job attitudes (job satisfaction and organizational commitment) – turnover intentions relationship, and end up developing seven (7) hypotheses to test. A conceptual framework pictorially portraying those hypotheses is also presented. The results of the review are also used to benchmark the study's findings to highlight its contributions. It begins with conceptual definitions.

### ***Turnover Intentions***

Turnover has been defined in the literature as the willingness of an employee to leave the organization and move to another organization. It can be viewed as a two-sided sword (Ekhsan, 2019) – as a withdrawal behaviour but also as an individual's right of choice. Both views are what Price and Mueller (1986) refer to as voluntary turnover – an employee's choice to leave the job or the organization. The other type is the involuntary turnover which refers to an employee's removal from his job by the employer. Irrespective of the type, turnover has potential direct and indirect cost consequences, as well as some positive benefits to the organization. For a good discussion of these consequences of turnover, Weisberg and Kirshenbaum (1991), Maertz and Campion (1998), Lambert and Hogan (2009), and Luz et al. (2018) are good reads. However, research for many years focused on turnover intentions than the actual turnover behaviour, the advice of which can be traced as far back as to the works of Dalession et al. (1986: 261) and

Steele and Ovalle (1984). These two studies have shown turnover intentions as the best predictor of actual turnover, drawing from Fishbain and Ajzen's (1975) theory of reasoned action. The theory suggests that the best single predictor of an individual's behaviour is the individuals' intention to perform the behaviour in question. Turnover intentions refer to the cognitive process of thinking of quitting, planning on leaving a job, and the desire to leave the job (Mobley et al., 1979). Turnover intentions are preferred over the actual turnover for their benefits to organizational managers. Not only turnover intentions are easy to measure but they can also be measured more accurately. In addition, understanding the level of turnover intentions among employees is beneficial because it is possible to influence the minds of the employees before they leave than when they have already left the organization. Martz et al. (2013) note that turnover intent is undesirable even if it does not culminate into actual turnover because persons who desire to leave are often less likely to contribute meaningfully to the organization than those who don't. This study, therefore, focused on academicians' intentions to leave their universities – turnover intentions.

### ***Organizational Commitment***

Organisational commitment is defined as "the strength of an individual's identification with, and involvement in, a particular organisation" (Porter et al., 1974, p. 604). It has three dimensions suggested and defined by Meyer and Allen (1991) as follows: (i) Affective commitment which is defined as the state in which an employee wants to stay with an organisation as a result of the "emotional attachment to, identification with, and involvement in, the organisation"; (ii) Continuance commitment - the feeling of being "stuck" leading to a decision to stay with an organisation because it is too costly to leave; and (iii) Normative commitment - the feeling of a moral obligation to remain with the organisation.

Researchers and practitioners alike have developed an interest in understanding the antecedents of organisational commitment and its dimensions because of its linkage to key organisational outcomes, including employee turnover intentions (Chughtai and Zafar, 2006; Jonathan et al., 2013). The present study focused on the affective commitment dimension because, in academics, academicians develop affection and emotional attachment to their university jobs as well as the university itself: especially the longer they stay and the higher the academic credentials they attain. The choice of affective commitment was also due to its dominance in the organizational commitment literature (Jaros, 1993).

### ***Job Satisfaction***

Locke (1969) defines job satisfaction as "the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating one's job values" and job dissatisfaction as the unpleasant emotional state resulting from the appraisal of one's job as frustrating or blocking the attainment of one's job values" (p.317). Satisfaction, therefore, is achieved when employees strike an evaluative balance between their expectations from a job and what that job offers them. A satisfied employee is expected to develop positive attitudes and to bring desirable work values into the organization, which in turn leads to enhanced efficiency and productivity (Kanwar et al., 2018). In addition, job satisfaction has been viewed as an important job attitude because of its

consequences in the organization such as lower turnover intentions, lower absenteeism, and higher organizational commitment, to mention a few.

### ***Relationship Between Job Satisfaction, Affective Commitment and Turnover Intentions***

The job satisfaction-turnover intentions link has attracted more research than the other two links i.e. job satisfaction – organizational commitment and organizational commitment – turnover intentions. On the first link, Hellman's (1997) meta-analytic study reported that the relationship between job satisfaction and intent-to-leave was consistently negative. Subsequent studies (Abu Raddaha et al., 2012; Masum et al., 2016) reported similar results. On the other hand, studies on the job satisfaction - organizational commitment (Chordiya et al., 2017; Gunlu et al., 2010; Markovits et al., 2010; Oztuck et al., 2014; Saridakis et al., 2018), reported a consistently positive and significant relationship between job satisfaction and organizational commitment. On the organizational commitment – turnover intentions link, Addae et al. (2006) and Mohamed et al. (2006) reported consistent results showing that affective organizational commitment statistically significantly negatively impacted on turnover intentions. These results are therefore consistent with the notion that committed employees are less likely to leave the organization than those who are not (Meyer et al., 2002)

In Tanzania, several studies have examined the job satisfaction - turnover intentions link (Amani and Komba, 2016; Blaauw et al., 2013; Jonathan, Thibeli and Darroux, 2013; Ngatuni and Matolo, 2018). While only Amani and Komba examined the link in universities, the rest examined it on samples of nurses, secondary school teachers, and bankers, respectively. However, they all reported negative and significant effects of job satisfaction on employees' turnover intentions. Also, several other studies examined the link between job satisfaction and organizational commitment (Jonathan, Darroux, and Massele, 2013; Jonathan, Darroux, and Thibeli, 2013). Both were based on a sample of secondary school teachers and reported a positive and significant effect of job satisfaction (intrinsic and extrinsic) on organizational commitment, the extrinsic job satisfaction being the strongest predictor of organizational commitment. Hokororo and Michael (2019) on the other hand examined intention to stay (the opposite of intentions to leave) of universities academic staff but linked it to job embeddedness. Therefore, an examination of the link between organizational commitment and turnover intentions in Tanzania lagged, and so are the studies examining the relationship between the three variables, including the mediation possibilities.

Studies elsewhere (Kanwar et al., 2018; Lambert 2006; Luz et al. 2018; Tnay et al. 2013; Tubay, 2019), examined the relationship among job satisfaction, organizational commitment and turnover intentions, to determine whether job satisfaction and organizational commitment predicted turnover intentions. Industries covered include ICT, manufacturing industry, accounting professional, hotels, correctional facilities staff, and so on, and in countries like Brazil, Philippines, Indonesia, Malaysia, India and US. Overall, the empirical evidence shows that both job satisfaction and organizational commitment significantly negatively predicted turnover intentions. One exception is Tnay et al. (2013) who reported an insignificant effect of organizational commitment. Moreover, the results of a meta-analysis study, by Griffeth et al. (2000), suggest that organizational commitment predicts turnover intentions better than job satisfaction does. This relative position of organizational commitment as the strongest predictor

of turnover intentions is subsequently supported by such studies as Kanwar et al. (2018), Lambert and Hogan (2009) and Luz et al. (2018). The only exception is Lambert (2006) who reported the converse. Kanwar et al. (2018) argue that job satisfaction may be a more distal variable of turnover intent than organizational commitment proposing that job satisfaction would affect organizational commitment first, which in turn will affect turnover intentions. They argue that satisfied employees will demonstrate greater commitment and this commitment will then lead to reduced turnover intentions. According to Field (2018), the aforementioned evidence presents an avenue for mediation. Also, other studies (e.g. Lambert and Hogan, 2009) have suggested that organizational commitment takes longer to develop than job satisfaction, despite the unresolved debate about the causality of job satisfaction – organizational commitment relationship (see, for example, Vandenberg and Lance, 1992). This suggests that job satisfaction occurs faster than organizational commitment, creating a possible indirect route to turnover intentions via organizational commitment. However, fewer researches have been directed towards the assessment of this possibility.

Two pieces of research have examined the mediation of organizational commitment in the relationship between job satisfaction and turnover intentions in Bali, Indonesia (Devyanti and Satrya, 2020; Dharmayanti and Sriathi, 2020). Both studies found job satisfaction and organizational commitment having a significantly negative effect on turnover intentions while job satisfaction positively and significantly affecting organizational commitment. Using the Sobel test, both studies found that organizational commitment mediated partially but significantly on the effect of job satisfaction on turnover intentions. These findings are consistent with those of an earlier study by Lambert and Hogan (2009). Thus, the mediation testing is lagging not only globally, but in Tanzania and more specifically in the higher education sector.

### ***Controlling Variables***

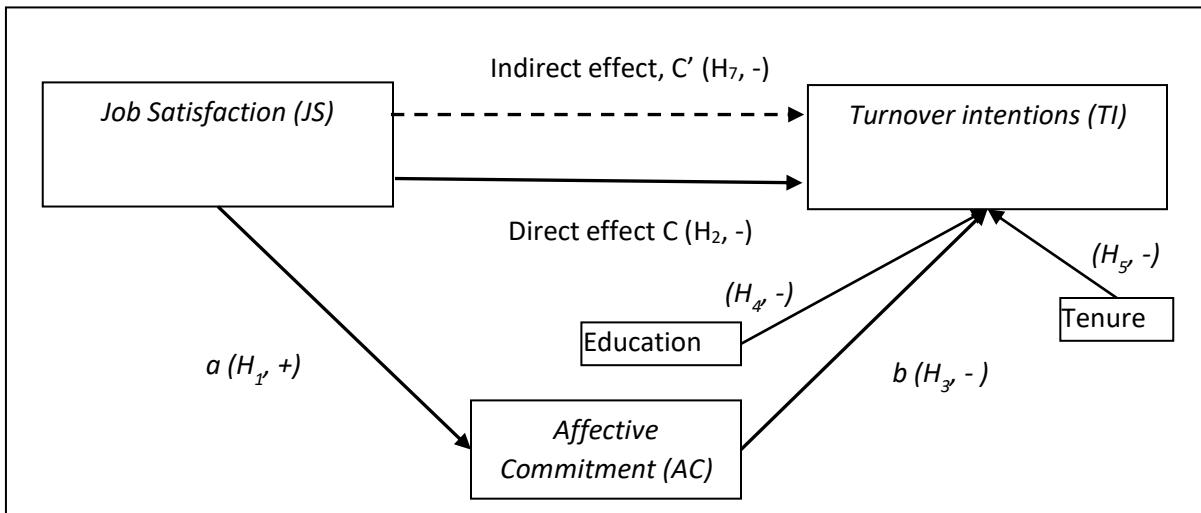
Demographic variables have been used in previous researches for several purposes; (i) to assess the unique contributions of the variables of interest in explaining the variance in the dependent variable (as control variables); (ii) to describe the study's sample; and (iii) to evaluate the generalizability of the findings (El-Dief and El-Dief, 2019). However, this study considered only tenure and education qualification as control variables, leaving the rest for sample description. A positive and statistically significant effect of education level on turnover intentions has been reported in previous researches (Cotton and Tuttle, 1986; Lambert, 2006; Emiroğlu et al., 2015; Masum et al., 2016). One common message from these studies is that employees with higher levels of education – e.g. college degree tend to report significantly lower levels of turnover intentions than those with lower education levels. For academicians, the division between high and low academic qualification is within the higher education group (with or without doctorate). In this case, the differences in the turnover intentions may results from the view that holding a doctorate represents a high level of individual and institutional investment in one's training and development. These investments raise the perceived loss that academicians may have to endure should they decide to quit their job. While this position is consistent with Becker's (1960) side bets theory, it does not rule out the alternative view that higher qualification may reduce the perceived costs of leaving because it gives the employees more opportunities and employment alternatives, fueling higher turnover intentions (Zwan et al., 2012). However, in Tanzania, the

latter view may not hold well with doctorate holders, leading to lower turnover intentions among them.

This latter view is also consistent with the contextual beliefs in many countries in Africa that doctorate degrees are for the university lecturers. Holders of doctorate qualifications within universities, therefore, may view careers outside universities as a career which will not earn them compensation commensurate to their investment. It is likely therefore that among university academicians, turnover intentions will be negatively related to education qualification.

Tenure refers to the length of time an employee has been working for the current employer. The longer one stays on a job, the stronger his ability to evaluate the organization's situation more rigorously and come up with informed decision including the decision to quit (Puran and Sahadar, 2008). Similarly, the longer an employee works for an organisation, the higher the chances that he will develop an emotional attachment to it making the decision to quit more difficult (Khan et al., 2013). With time employees tend to develop work and social networks, a better understanding of the work systems, as well as job – and organization-specific coping mechanisms. All these outcomes add to the value of the side bets. This value grows with the time one spends in the organization, and subsequently, it contributes to the hardship in contemplating quitting. Empirical support for this position is found in various studies including those of Cameron et al. (1994) and Masum et al. (2016).

From the aforesaid, it is suggested that the two demographic variables also influence the academician's turnover intentions. The two variables also work in tandem in the academician's training and development process. Training to doctorate level requires one to have spent considerable time on the job and in the university. Hence controlling for the influence of education and tenure in the prediction of turnover intentions is warranted to unearth the unique contribution of the two job attitudes. Figure 1 presents the hypothesised relationships among job attitudes and turnover intentions as well as the two demographic characteristics.



**Figure 1. Conceptual Model**

From the literature review presented, and the resulting conceptual model, the following hypotheses were specified and tested:

- H1. Job satisfaction will have a positive and significant effect on affective commitment
- H2. Job satisfaction will have a negative and significant effect on turnover intentions
- H3. Affective commitment will have a negative and significant effect on turnover intentions
- H4. Education qualification will have a negative and significant effect on turnover intentions
- H5. Tenure will have a negative and significant effect on turnover intentions
- H6. Job satisfaction and affective commitment will have a negative and significant effect on turnover intentions after controlling for the influence of education qualification and tenure
- H7. Affective commitment will mediate significantly in the relationship between job satisfaction and turnover intentions

## Methodology

A cross-sectional descriptive research design was adopted. A survey strategy was used to collect the primary data required to confirm the hypotheses. Participants were drawn from selected public universities. As of January 2020, there were 43 university institutions in Tanzania – 30 Universities (12 public and 18 private) and 13 university colleges (4 public and 9 private) (TCU, 2020). The study focused on public universities, and based on size, only the big universities were targeted – namely University of Dar es Salaam (UDSM), Sokoine University of Agriculture (SUA), The Open University of Tanzania (OUT), Muhimbili University of Health and Allied

Sciences (MUHAS) and Mzumbe University (MU). These universities were selected purposively as universities with not only a significant number of academicians but also a mixture of short and long-serving academicians. Convenience sampling technique was used to select academicians from each University. The technique was chosen because of its ability to mitigate the challenges of accessibility/availability of academicians given the nature of their work schedules (Etikan et al., 2016). Some could be on long study leave, some on short training or attending seminars and conferences, while others could be on other university activities like conducting research and consultancies outside the universities on the days of the visit. Thus, academicians who were found in their offices and willing to participate were given the questionnaires to fill and leave them at an agreed-upon point for later collection. They were fully informed that (i) their participation was voluntary; (ii) all of their responses would be confidential; and that (iii) the results of the analysis would be reported in aggregate terms. In total 300 questionnaires were distributed.

### ***Variables and Their Measurement***

*Turnover intentions:* was measured by five items (all positively worded) adapted from previous studies – three from Wayne et al. (1997), also used in Villanueva and Djurkovic (2009). Sample items were “As soon as I can find a better job, I’ll leave my university” and “I am actively looking for a job outside my place of employment.” Academicians responded to these items on a 7-point scale ranging from strongly disagree (1) to strongly agree (7).

*Affective Commitment:* was measured by eight items (four of them negatively worded) adapted from Allen and Meyer (1991). Sample items were “I would be very happy to spend the rest of my career with this university”, “I really feel as if this university’s problems are my own” and, “I think that I could easily become as attached to another university as I am to this one” (negatively worded). Academicians responded to these items on a 7-point scale ranging from strongly disagree (1) to strongly agree (7).

*Job satisfaction:* was measured using five-items (one of them negatively worded) adapted from Brayfield and Rothe’s (1951) job satisfaction scale. Sample items included “I feel fairly well satisfied with my present job” and “I consider my job rather unpleasant”. Academicians responded to these items on a 5-point scale ranging from strongly disagree (1) to strongly agree (5).

Finally, several demographic characteristics – age, gender, marital status, job rank, administration workload (all categorical) were added to describe the sample. In addition, following the suggestions of Becker’s (1960) side bets theory in relation to commitment and turnover intentions, tenure (continuous) and educational qualification (categorical) were added as control variables. To fit into the regression model as a predictor variable, the educational qualification which was measure in four levels was dichotomised into 1 if the participant held a doctorate, 0 otherwise.

### **Data Analysis**

Two hundred and twenty-three (223) filled questionnaires were returned (74.3 percent response rate). These were inspected, responses coded and entered into IBM SPSS Statistics software V.23. Descriptive statistics (Frequency distribution) were run to check for errors in data entry. Using the negatively worded items in affective commitment and job satisfaction as attention traps and standard deviation statistics, 32 unengaged cases were identified and removed from the sample, leaving 191 cases. Missing values were identified in 16 of the variables (all below five percent) and were imputed by a median of the nearby points. The negatively worded items were then reverse-coded followed by a scale test for reliability analysis, which returned Cronbach's  $\alpha$ s of .706 for the turnover intentions scale, .714 for affective commitment sale (further optimized to .746 after deletion one item "I think that I could easily become as attached to another university as I am to this one") and .626 for the job satisfaction scale (further optimized to .723 after deletion of one item "I consider my job rather unpleasant"). For each participant, mean scores were obtained by averaging the scale items' scores by the number of the items retained for subsequent analyses.

Hypotheses testing was done using multiple regression analysis while the mediation effect was tested using Andrew Haye's *Process Tool v. 3.4.1* (Hayes, 2019) plug-in to IBM SPSS Statistics. The effect size and the significance of the indirect effect were assessed using Preacher and Kelley's (2011)  $K^2$  and Sobel test, respectively, where  $K^2$  has cut-offs of .01, .09, and .25 for small, medium and large effect respectively. The underlying assumptions – normality, linearity, outliers, no multicollinearity (additivity), and homoscedasticity were checked. Linearity assumption was tested through normal p-p plot followed by correlation between Turnover intentions and affective commitment ( $r = -.494$ ,  $p < .001$ ) and job satisfaction ( $r = -.458$ ,  $p < .001$ ) against the recommended minimum of  $r = .3$  (Pallant, 2016), representing moderate correlation (Cohen, 1988). Thus, the linearity assumption was not violated. The data passed the outlier test by returning a maximum Mahalanobis Distance of 10.18, which was lower than the maximum cut-off distance of  $\chi^2_{(2)} = 13.82$ ,  $p < .001$  (Tabachnick and Fidell, 2019). The data also passed the no multicollinearity problem assumption test by having the highest Pearson product-moment correlation coefficient among the predictor variables ( $r = .54$ ,  $p < .001$ ), which was lower than the maximum recommended of .7 (Pallant, 2016). Beyond this cut-off value, a multicollinearity problem would have been suspected in the data. This test was followed by variance inflation factors (VIF) lower than 1.5. Rogerson (2001) recommends a maximum cut-off of = 5.0. However, the data slightly failed one of the two homoscedasticity assumption tests (using Ahmad Daryanto's plugin for IBM SPSS statistics) as Breusch Pagan was  $\chi^2 = 6.39$ ,  $p = .041$  and Koenker was  $\chi^2 = 4.21$ ,  $p = .12$ ). Consequently, the study reported the regression estimated based on heteroscedasticity robust standard errors (HC03) after controlling for this heteroscedasticity problem.

## Results and Discussion

### *Participants' Profile*

Results indicated that about eight (8) percent of the participants were young, i.e. 30 years or under, while 65 percent were between 31 and 50 years, leaving 26.7 percent in the > 50 years age group. The sample was dominated by male participants (74 percent), typical of the gender profile of universities' academic staff. The majority (87 percent) had family responsibilities (married) and about 10 percent were single. There was a fifty-fifty split between PhD holders and those with Masters Degrees or lower (first-degree holders making only nine percent of the total sample). Fifty-nine percent were in the lecturer's rank or higher (with Professors making only 14.4 percent of the total sample). Lastly, about 30 percent of the participants held administrative responsibilities, 57 percent of them holding heads of department position. Participants had been on their job for a period ranging from one to 43 years ( $M = 12.67$ ,  $S.D. = 8.6$ ) (Table 1).

### *Descriptive, Reliability and Correlation Statistics*

Descriptive and scale test for reliability analyses were performed to describe the data and test for internal consistency of the measurement scales, respectively. Moreover, correlation analyses were performed to test for both the linearity and no-multicollinearity assumptions. The two control variables – tenure and education qualification were also added. In the results (Table 1), affective commitment had a higher mean score than turnover intentions (same response range). Academicians with doctorate qualification had statistically significantly lower turnover intentions ( $M = 2.65$ ,  $SD = 1.30$ ) than those without it ( $M = 3.37$ ,  $SD = 1.32$ ,  $t(188) = -3.76$ ,  $p < .001$ ). They also had a significantly higher job satisfaction ( $M = 3.41$ ,  $SD = .90$ ) than those without the doctorate qualification ( $M = 3.05$ ,  $SD = .92$ ,  $t(188) = 2.70$ ,  $p = .008$ ). However, the affective commitment did not differ significantly between the academician with doctorate ( $M = 4.80$ ,  $SD = 1.23$ ) and those without it ( $M = 4.65$ ,  $SD = 1.10$ ,  $t(188) = .90$ ,  $p = .37$ ). Both job satisfaction and affective commitment had  $r = -.46$ ,  $p < .001$  and  $r = -.49$ ,  $p < .001$ , respectively, with turnover intentions. These cut-offs were within the range of .3 to .49 (Cohen, 1988) indicating their significant moderate correlation with turnover intentions. They also indicated that the linearity assumption was met. These coefficients were very similar to those reported for job satisfaction (-.410 to -.434) and organizational commitment (-.449 to -.485) in the previous researches by Devyanti and Satrya (2020), Kanwar et al. (2018) and Lambert and Hogan (2009). Turnover intentions were significantly negatively correlated with tenure ( $r = -.237$ ,  $p = .001$ ) and educational qualification ( $r = -.265$ ,  $p < .001$ ). Job satisfaction was significantly positively correlated with tenure ( $r = .173$ ,  $p = .017$ ) and education ( $r = .193$ ,  $p = .008$ ). Job satisfaction and affective commitment were significantly positively correlated ( $r = .54$ ,  $p < .001$ ) and so were tenure and education ( $r = .563$ ,  $p < .001$ ). Finally, the affective commitment was positively correlated with both tenure ( $r = .104$ ,  $p = .152$ ) and education ( $r = .065$ ,  $p = .370$ ), but neither of the relationships was significant. The correlation coefficients of all these independent variables were lower than the maximum of  $r = .9$  beyond which a serious multicollinearity problem would be suspected in the data (Pallant, 2016). All Cronbach's  $\alpha_s$  were above  $\alpha = .7$  showing that each of the measurement scales had acceptable internal consistency (George and Mallory, 2019; Hair et al., 2019).

**Table 1. Descriptive, Reliability and Correlation Results**

Variable	M	S.D.	$\alpha$	1	2	3	4
1. Turnover Intentions ( $k = 4$ )	3.02	1.35	0.71				
2. Job Satisfaction ( $k = 4$ )	3.23	0.93	0.72	-.458***			
3. Affective Commitment ( $k = 7$ )	4.72	1.16	0.74	-.494***	.543***		
4. Tenure	12.67	8.60		-.237**	.173*	0.104	
5. Education				-.265***	.193**	0.065	.565**

\*\*\*.  $p < .001$ ; \*\*  $p < 0.01$ ; \*  $p < .05$  level (2-tailed).  $k$  = number of scale items retained

### **Multiple Regression Analysis**

Multiple regression analysis techniques were used to test the ability of the two job attitudes of job satisfaction and affective commitment to predict levels of turnover intentions. To control for the heteroscedasticity problems observed in the preliminary analysis, the results are based on heteroscedasticity-robust standard errors. Results (Table 2, Model 1) show that the total variance in turnover intentions explained by the model was 29.5%,  $F(2, 188) = 38.99$ ,  $p < .001$ . Both job satisfaction ( $b = 0.39$ ,  $t(188) = -3.36$ ,  $p < .001$ ) and affective commitment ( $b = 0.40$ ,  $t(188) = -4.08$ ,  $p < .001$ ) significantly negatively predicted turnover intentions. In addition, affective commitment with a higher beta value ( $\beta = -.35$ ) had the strongest impact on turnover intentions compared to job satisfaction ( $\beta = -.27$ ). With both education and tenure added (Model 2), the total variance in turnover intentions explained increased to 33.6 percent. Education had a significant negative effect on turnover intentions ( $b = -0.43$ ,  $t = -2.14$ ,  $p = .034$ ) and so did tenure but insignificant ( $b = -.11$ ,  $t = -.996$ ,  $p = .32$ ). The position of affective commitment as the main contributor to the variance explained was unchanged.

**Table 2. Multiple Regression Analysis Results**

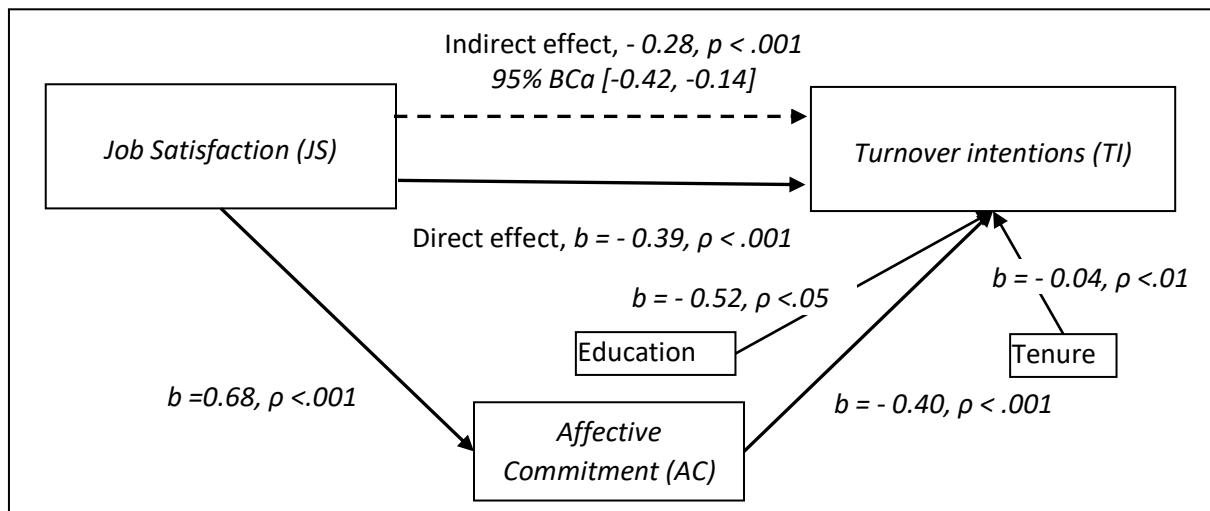
	Model 1 <sup>a</sup>		Model 2		Model 3					
					Step 1		Step 2		Step 3	
Constant	6.196	***	6.371	***	3.491	***	3.531	***	6.371	***
Job Satisfaction	-0.393	***	-0.324	**					-0.324	**
Affective Commitment	-0.404	***	-0.413	***					-0.413	***
Education			-0.425	*			-0.518	*	-0.425	*
Tenure			-0.11		-0.037	**	-0.02		-0.011	
R <sup>2</sup>	29.5		33.6		0.056		0.081		33.6	
F-Stat.	38.99	***	23.244	***	11.14	**	8.229	***	23.244	***
ΔR <sup>2</sup>							0.025		25.4	
ΔF-Stat.							5.072	*	35.231	***

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; <sup>a</sup>based on heteroscedasticity-robust standard errors

Hierarchical multiple regression was used to assess the ability of the two job attitudes (job satisfaction and affective commitment) to predict levels of turnover intentions after controlling for the influence of education and tenure (Model 3). Tenure was added at Step 1, explaining 5.6% of the variance in turnover intentions. Its effect was negative and statistically significant ( $b = -0.037$ ,  $t = -3.34$ ,  $p < .01$ ). Education was then added at Step 2 and both control variables explained 8.1% of the variance in turnover intentions ( $b = .52$ ,  $t = -2.25$ ,  $p = .03$ ,  $\Delta R^2 = 2.5\%$ ,  $\Delta F(1,186) = 5.072$ ,  $p = .025$ ). The effect of education was negative and statistically significant, but that of tenure became insignificant. After entering both job satisfaction and affective commitment in Step 3, the total variance explained by the model as a whole was 33.6%,  $F(4,184) = 23.244$ ,  $p < .001$ . The two job attitude variables explained an additional 25.4% of the variance in turnover intentions after controlling for the influence of education and tenure;  $\Delta R^2 = 25.4\%$ ,  $\Delta F(2,184) = 35.23$ ,  $p < .001$ . In the final model all the predictors, but tenure, were statistically significant with affective commitment retaining its superior position in explaining the variance in the turnover intentions (beta = -.355,  $p < .001$ ).

### **Indirect Effect Analysis Results**

The indirect effect of affective commitment in the relationship between job satisfaction was estimated using the Process tool v.3.4.1 (Hayes, 2019), the application details of which are well demonstrated in Field (2018). In the results (Figure 2), there was a significant indirect effect of job satisfaction on turnover intentions through affective commitment,  $b = -.28$ , BCa CI [-.42, -.14]. This represents a relatively medium and significant effect,  $K^2 = .18$ , 95% BCa CI [.098, .26],  $z = -3.81$ ,  $p < .001$ . These results indicate that affective commitment partially and significantly mediated the relationship between job satisfaction and turnover intentions. There could, therefore, be other potential mediators to include in the model in addition to affective commitment.



**Figure 2. Indirect Effect**

## **Discussion**

The present study examined the relationship among two job attitudes (job satisfaction and affective commitment) and one behavioural outcome (turnover intentions) among academicians in five public universities in Tanzania. The objectives were to assess whether the two job attitudes significantly predicted the academicians' turnover intentions, whether demographics (tenure and education qualification) significantly predicted turnover intentions, and whether the two job attitudes had a unique contribution in the prediction of turnover intentions after controlling for the effects of tenure and education qualification. Finally, the study determined whether affective commitment mediated in the relationship between job satisfaction and turnover intentions. Based on the reviewed theoretical and empirical literature, seven hypotheses were developed and tested. All seven hypotheses were supported.

From the results of the descriptive statistics, academicians were found to have moderate turnover intentions, job satisfaction and affective commitment (Albdour, and Altarawneh, 2014). Academicians holding doctorate qualifications reported lower (higher) turnover intentions (job satisfaction) than those who held lower qualifications. Educational level differences in affective commitment were insignificant. Turnover intentions were moderately and significantly correlated with job satisfaction and affective commitment.

Job satisfaction was found to be a significant positive predictor of affective commitment. This finding implies that academicians satisfied with their job are likely to develop emotional attachment and affection to the university, supporting hypothesis H<sub>1</sub>. The finding is similar to those reported in previous studies e.g. Ozturk et al. (2014), Chordiya et al. (2017), Jonathan, Darroux, and Massele (2013), and Jonathan Darroux and Thibeli (2013). The study also found that both job satisfaction and affective commitment negatively and significantly affected turnover intentions. Hypotheses H<sub>2</sub> and H<sub>3</sub> are therefore supported implying that both job attitudes are important predictors of the academicians' intentions to leave their universities. The results on the job satisfaction – turnover intentions link and the job satisfaction – organizational commitment link lend support to the social exchange theory which posits that academicians would report a lower intention to turnover as well as more affection and emotional attachment with the university as reciprocation to their feeling of being satisfied with their job. These results are consistent with those reported in Kanwar et al. (2018), Lambert (2006), Luz et al. (2018) and Tubay (2010). In addition, the results of job satisfaction significantly predicting turnover intentions are consistent with those reported in Amani and Komba (2016), Blaauw et al (2013), Ngatuni and Matolo (2018) and Jonathan Thibeli and Darroux (2013) in the Tanzanian context.

Similar to previous studies (Emiroğlu et al., 2015; Lambert, 2006; Masum et al., 2016), turnover intentions differed significantly between doctorate holders and those without, where doctorate holders reported significantly lower turnover intentions. In addition, turnover intentions were negatively and significantly related to tenure. These finding created the need to control for their effect in the estimation of the effect of the two job attitudes on turnover intentions. This was done following the view that academicians may not stay because of their satisfaction or affection and emotional attachment, but because of the value of the perceived side bets which will be lost should they quit. The value of these side bets is expected to grow with the length of service and with the perceived low demand for the doctorate degrees outside universities. Each of these

demographic variables had a significant negative effect on turnover intentions, with education having a significant unique effect after controlling for the effect of tenure. These findings confirmed hypotheses H<sub>4</sub> and H<sub>5</sub>. Besides, controlling for the effects of both variables, the findings show that job satisfaction and affective commitment had a unique contribution in predicting the levels of academicians' turnover intentions. These findings confirm hypothesis H<sub>6</sub>, indicating that the two job attitudes affect turnover intentions beyond the effects of tenure and education credentials. The finding that affective commitment contributes more than job satisfaction is in line with the turnover literature, e.g. Griffeth et al. (2000), who argued that organizational commitment predicts turnover intentions better than job satisfaction. It may also support the idea that organizational commitment occurs earlier than job satisfaction in a work setting (Kanwar et al., 2018).

The affective commitment was found to significantly, but partially mediate in the relationship between job satisfaction and turnover intentions. These findings, in addition to confirming hypothesis H<sub>7</sub>, are consistent with previous studies, for example, Devyanti and Satrya (2020) and Dharmayanti and Sriathi (2020). These findings are new in Tanzania as none had been done on the trio, let alone in the higher education sector. Likewise, the findings on the organizational commitment – turnover intentions link are also new.

## **Conclusions and Recommendations**

Job satisfaction has a positive and significant effect on affective commitment and the two have a negative and significant effect on turnover intentions, with affective commitment contributing the most. The significant effect of the two job attitudes on turnover intentions survived the control of the effects of tenure and academic qualification. Affective commitment only partially but significantly mediated in the relationship between job satisfaction and turnover intentions, which may imply the possibility that there are more mediators than just the affective commitment. Besides, the findings of partial mediation may imply that increasing satisfaction is good for taming turnover intentions, but the outcome would be enhanced if affective commitment-enhancing measures are also stepped up. Moreover, the fact that the four variables only explained under 40 percent of the variance in turnover intentions, more antecedents could be at play.

The study has an important implication for human resource (HR) management practices. The turnover intentions must be managed and monitored in a way that ensures that an appropriate level is attained and its consequences minimized through efficient solution (Philips and Connell 2003). The findings imply that when an academician leaves the university especially a doctorate holder it will take another 8 to 10 years to produce a similarly qualified replacement. Capacity for producing more PhDs, masters and research outputs as well as knowledge generation projects will go with them. HR managers should proactively identify and implement practices that encourage staff to like, and commit to, their jobs and their university. One of the ways to do so is to improve the working environment e.g. rewarding Heads of Department, Faculty/School Deans, and College Principles, who will create a satisfying and empowering environment. Initiatives for academic staff training and development as well as research support are also recommended.

The study is not without limitation. The sample is limited to public universities, leaving out private universities as well as the non-university higher learning institutions. These exclusions limit the generalizability of the result on all universities and more broadly to higher learning institutions. The study tested the prediction of turnover intentions using only two of the key job attitudes. The other job attitudes are job involvement, work engagement, organizational support (supervisory and managerial) (Robbins and Judge, 2018), as well as organizational politics. Future research should consider these extensions to expand on the literature on turnover intentions predictions. An expansion of the number of the mediating variables is encouraged and so is a call for multi-sectoral study. Given the many and important negative consequences of turnover intentions especially among university academicians, a better understanding of the factors that could help tame this potential behaviour is welcome.

Such limitations notwithstanding, this study's findings linking the two job attitudes (job satisfaction and affective commitment), especially the latter, to turnover intentions and the mediation of affective commitment are new, not only to the turnover intentions' literature in higher education but also to a frontier market – Tanzania. The direct effect of job satisfaction on turnover intentions is not eliminated even after accounting for the effects of affective commitment, education and tenure.

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## References

- Abu Raddaha, A.H., Alasad, J., Albikawi, Z. F., Batarseh, K.S., Realat, E.A., Saleh, A.A., and Froelicher, E.S. (2012). Jordanian nurses' job satisfaction and intention to quit. *Leadership in Health Services*, 25(3), 216-231.
- Addae, H. M., Parboteeah, K. P., and Davis, E. E. (2006). Organizational commitment and intentions to quit. *International Journal of Organizational Analysis*, 14(3), 225 - 238
- Albdour, A. A., and Altarawneh, I. I. (2014). Employee engagement and organizational commitment: Evidence from Jordan. *International Journal of Business*, 19(2), 192 - 212.
- Aldhuwaihi, A., Shee, H. K., and Stanton, P. (2012). Organisational culture and the job satisfaction-turnover intention link: A case study of the Saudi Arabian banking sector. *World*, 2(3), 127-41.
- Amani, J., and Komba, A. (2016). Relationship between job satisfaction and turnover intention among lecturers in Tanzanian public universities. *Annals of Modern Education*, 8(1), 1-15.
- Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology*, 66(1), 32-40.
- Bisaso, R. (2017). *Makerere University as a Flagship Institution: Sustaining the Quest for Relevance*, in Teferra, D. Flagship Universities in Africa. Palgrave-Macmillan, Switzerland.

- Blaauw, D., Ditlopo, P., Maseko, F., Chirwa, M., Mwisongo, A., Bidwell, P., and Normand, C. (2013). Comparing the job satisfaction and intention to leave of different categories of health workers in Tanzania, Malawi, and South Africa. *Global Health Action*, 6, 127-137
- Blau, P. M. 1964. *Exchange and power in social life*. New York: John Wiley.
- Brayfield, A. H., and Rothe, H. F. (1951). An index of job satisfaction. *Journal of Applied Psychology*, 35(5), 307-311.
- Cameron, S.J., Horsburgh, M.E., and Armstrong-Stassen, M. (1994). Job satisfaction, propensity to leave and burnout in RNs and RNAs: A multivariate perspective. *Canadian Journal of Nursing Administration*, 7 (3), 43-64.
- Chordiya, R., Sabharwal, M., and Goodman, D. (2017). Affective organizational commitment and job satisfaction: A cross-national comparative study. *Public Administration*, 95(1), 178-195.
- Chughtai, A. A., and Zafar, S. (2006). Antecedents and consequences of organisational commitment among Pakistani university teachers. *International Journal of Manpower*, 19(3), 184-194.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.
- Cotton, J. and Tuttle, J. (1986). Employee turnover: A meta-analysis and review with implication for research. *Academy of Management Review*, 11(1), 55-70.
- Dalessio, A., Silverman, W. H., and Schuck, J. R. (1986). Paths to turnover: A re-analysis and review of existing data on the Mobley, Horner, and Hollingsworth turnover model. *Human Relations*, 39(3), 245-263.
- Davidson, M. C., Timo, N., and Wang, Y. (2010). How much does labour turnover cost?: A case study of Australian four-and five-star hotels. *International Journal of Contemporary Hospitality Management*, 22(4), 451-466.
- Devyanti, N. L. P. L., and Satrya, I. G. B. H. (2020). Effect of job satisfaction on turnover intention with organizational commitment as a mediating variable. *American Journal of Humanities and Social Sciences Research*, 4(3), 293-298
- Dharmayanti, K. A., and Sriathi, A. A. A. (2020). The role of organizational commitment mediates the effect of job satisfaction on employee turnover intention in Bali Relaxing Resort and Spa. *American Journal of Humanities and Social Sciences Research*, 4(1), 188-194.
- El-Dief, M., and El-Dief, G. (2019). Factors affecting undergraduate's commitment to career choice in the hospitality sector: Evidence from Saudi Arabia. *Journal of Human Resources in Hospitality & Tourism*, 18(1), 93-121.
- Ekhsan, M. (2019). The influence job satisfaction and organizational commitment on employee turnover intention. *Journal of Business, Management, and Accounting*, 1(1), 48-55.
- Emiroğlu, B.D., Akova, O., and Tanrıverdi, H. (2015). The relationship between turnover intention and demographic factors in hotel businesses: A study at five-star hotels in Istanbul. *Procedia - Social and Behavioral Sciences*, 207, 385-397.
- Etikan, I., Musa, S. A., and Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.
- Field, A. (2018). *Discovering statistics using IBM SPSS Statistics*. (5<sup>th</sup> edition). London: Sage Publication Ltd

- Fishbein, M., and Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley
- George, D., and Mallory, P. (2019). *IBM SPSS Statistics 25 step by step: A simple guide and reference*. (15<sup>th</sup> edition). New York: Routledge.
- Griffeth, R. W., Hom, P. W., and Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 26(3), 463-488.
- Gunlu, E., Aksarayli, M., and Şahin Perçin, N. (2010). Job satisfaction and organizational commitment of hotel managers in Turkey. *International Journal of Contemporary Hospitality Management*, 22(5), 693-717.
- Hair, J. F. Jr., Black, W.E., Babin, B. J., and Anderson, R.A. (2019). *Multivariate data analysis*. (8<sup>th</sup> edition). Hampshire: Cengage Learning EMEA.
- Hayes, A. (2019). Process tool v.3.4.1. <http://afhayes.com/introduction-to-mediation-moderation-and-conditional-process-analysis.html> (Accessed 20 February 2020)
- Hellman, C. M. (1997). Job satisfaction and intent to leave. *The Journal of Social Psychology*, 137(6), 677-689.
- Hokororo, S. J., and Michael, F. (2019). Predicting academic staff intention to stay in Tanzanian universities using job embeddedness model: Smart PLS approach. *Pan African Journal of Business Management*, 3(2), 1-18.
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597-606.
- Jaros, S. J. (1997). An assessment of Meyer and Allen's (1991) three-component model of organizational commitment and turnover intentions. *Journal of Vocational Behavior*, 51(3), 319-337.
- Jonathan, H., Darroux, C., and Maselle, J. (2013). Perceived job satisfaction and its impact on organizational commitment: An empirical study of public secondary school teachers in Dodoma, Tanzania. *IOSR Journal of Business and Management*, 13(3), 41-52.
- Jonathan, H., Darroux, C., and Thibeli, M. (2013). Exploring the effect of job satisfaction and demographic factors on affective, normative and continuance commitment: An empirical evidence of public secondary school teachers in Tanzania. *Journal of Education and Practice*, 4(23), 85-96.
- Jonathan, H., Thibeli, M., and Darroux, C. (2013). Impact investigation of organizational commitment on intention to leave of public secondary school teachers in Tanzania. *Developing Country Studies*, 3(11), 78-91.
- Kanwar, Y. P. S., Singh, A. K., and Kodwani, A. D. (2012). A study of job satisfaction, organizational commitment and turnover intent among the IT and ITES sector employees. *Vision*, 16(1), 27-35.
- Khan, I., Nawaz, A., and Khan M.S. (2013). Determining the organizational commitment of academicians in public sector universities of developing countries like Pakistan. *International Journal of Research in Accounting, Finance and Management Sciences*, 3(1), 280–289.
- Lambert, E., and Hogan, N. (2009). The importance of job satisfaction and organizational commitment in shaping turnover intent: A test of a causal model. *Criminal Justice Review*, 34(1), 96-118.

- Lambert, E.G. (2006). I want to leave: A test of a model of turnover intent among correctional staff. *Applied Psychology in Criminal Justice*, 2 (1), 58-83.
- Locke, E. A. (1969). What is job satisfaction? *Organizational Behavior and Human Performance*, 4(4), 309-336.
- Luz, C. M. D. R., de Paula, S. L., and de Oliveira, L. M. B. (2018). Organizational commitment, job satisfaction and their possible influences on intent to turnover. *Revista de Gestão*, 25(1), 84-101.
- Maertz, C.P., and Campion, M.A. (1998). 25 years of voluntary turnover research: A review and critique. New York: *International Review of Industrial and Organizational Psychology*, 13, 49–81.
- Markovits, Y., Davis, A. J., Fay, D., and Dick, R. V. (2010). The link between job satisfaction and organizational commitment: Differences between public and private sector employees. *International Public Management Journal*, 13(2), 177-196
- Masum, A. K. M., Azad, M. A. K., Hoque, K. E., Beh, L. S., Wanke, P., and Arslan, Ö. (2016). Job satisfaction and intention to quit: An empirical analysis of nurses in Turkey. *PeerJ*, 4, e1896. <https://doi.org/10.7717/peerj.1896>
- Meyer, J. P., and Allen, N. J. (1991). A three-component conceptualization of organizational commitment. *Human resource management review*, 1(1), 61-89.
- Meyer, J., Stanley, D., Herscovitch, L., Topolnytsky, L. (2002). Affective, continuance, and normative commitment to the organization: a meta-analysis of antecedents, correlates, and consequences. *J. Vocational Behav.* 61, 20–52
- Mkumbo, K. (2014). Prevalence of and factors associated with work stress in academia in Tanzania. *International Journal of Higher Education*, 3(1), 1-11.
- Mobley, W., Griffeth, R., Hand, H., and Meglino, B. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86, 493-522.
- Mohamed, F., Taylor, G., and Hassan, A. (2006). Affective commitment and intent to quit: The impact of work and non-work related issues. *Journal of Managerial Issues*, 18(4), 512-529. Retrieved April 20, 2020, from [www.jstor.org/stable/40604556](http://www.jstor.org/stable/40604556)
- Ngatuni, P., and Matolo, A. (2018). The effects of job satisfaction on employees' turnover intention in commercial banks in Tanzania. *Pan African Journal of Business Management*, 2(1), 55-81
- Nyahongo, J. (2015). Improving socio-Economic environment to promote academic staff retention in Tanzanian universities: Case study of the University of Dodoma, in *managing change at universities-A selection of case studies from Africa and Southern Asia*, Volume II. (Edited by Peter Meyer and Marc Wilde).
- Ozturk, A. B., Hancer, M., and Im, J. Y. (2014). Job characteristics, job satisfaction, and organizational commitment for hotel workers in Turkey. *Journal of Hospitality Marketing & Management*, 23(3), 294-313.
- Pallant, J. (2016). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS*. (6<sup>th</sup> edition). Berkshire: McGraw Hill Pearson.
- Phillips, J.J., and Connell, A.O. (2003), Managing employee retention: A strategic accountability approach: Chelsea: Butterworth-Heinemann, Elsevier.
- Pienaar, C., and Bester, C. L. (2008). The retention of academics in the early career phase: Empirical research. *SA Journal of Human Resource Management*, 6(2), 32-41.

- Porter, L. W., Steers, R.M., Mowday, R.T. and Boulian, P.V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603-609.
- Price, J., and C. Mueller (1986). *Absenteeism and turnover among hospital employees*. Greenwich, CT: JAI Press.
- Purani, K., and Sahadev, S. (2008). The moderating role of industrial experience in the job satisfaction, intention to leave relationship: An empirical study among salesmen in India. *Journal of Business & Industrial Marketing*, 23(7), 475–485. <https://doi.org/10.1108/08858620810901239>
- Robbins, S. P., and Judge, T. A. (2018). *Essentials of organizational behaviour*. (14<sup>th</sup> edition). Harlow: Pearson Education Limited
- Rogerson, P. A. (2001). *Statistical methods for geography*. London: Sage.
- Saridakis, G., Lai, Y., Muñoz Torres, R. I., and Gourlay, S. (2018). Exploring the relationship between job satisfaction and organizational commitment: An instrumental variable approach. *International Journal of Human Resource Management*, 5192, 1–31. <https://doi.org/10.1080/09585192.2017.1423100>
- Steel, R. P., and Ovalle, N. K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69(4), 673.
- Tabachnick, B.G., and Fidell, L.S. (2019). *Using multivariate statistics*. (7<sup>th</sup> edition). Boston: Pearson Education.
- TCU (2020). Tanzania Commission for Universities, List of Registered Universities and University Colleges in Tanzania: Status by January 2020. [[www.tcu.go.tz](http://www.tcu.go.tz)] site visited on February 2020.
- Tettey, W. (2010). *Challenges of developing and retaining the next generation of academicians: deficit in academic staff capacity at African universities*. Partnership for Higher Education in Africa.
- Tnay, E., Othman, A. E. A., Siong, H. C., and Lim, S. L. O. (2013). The influences of job satisfaction and organizational commitment on turnover intention. *Procedia-Social and Behavioral Sciences*, 97(201-208), 3-8.
- Tracey, J. B., and Hinkin, T. R. (2008). Contextual factors and cost profiles associated with employee turnover. *Cornell Hospitality Quarterly*, 49(1), 12-27.
- Tubay, J. B. (2019). The role of job satisfaction and organizational commitment on turnover intentions of accounting professionals in big 3 auditing firms in the Philippines with moderating effect of leader-member exchange. *International Review of Management and Marketing*, 9(2), 84-88.
- URT (2010). *Higher education development programme 2010 - 2015: Enhanced relevance, access and quality in higher education*. Ministry of Education and Vocational Training, Dar Es Salaam, Tanzania.
- Vandenberg, R. J., and Lance, C. E. (1992). Examining the causal order of job satisfaction and organizational commitment. *Journal of Management*, 18(1), 153-167
- Villanueva, D., and Djurkovic, N. (2009). Occupational stress and intention to leave among employees in small and medium enterprises. *International Journal of Stress Management*, 16(2), 124.

- Wayne, S. J., Shore, L. M., and Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Academy of Management Journal*, 40(1), 82-111.
- Weisberg, J., and Kirschenbaum, A. (1991). Employee turnover intentions: implications from a national sample. *International Journal of Human Resource Management*, 2(3), 359-375.
- Weiss, D. J., Davis, R. V., England, G. W., and Lofquist, L. H. (1967). Manual for the Minnesota Satisfaction Questionnaire. *Minnesota studies in vocational rehabilitation*, No XXII. Minneapolis: Industrial Relations Centre, University of Minnesota, pp125