



# Determinants of job satisfaction among academic professionals of tertiary institutions in Zimbabwe

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Abstract

The broad objective of this study was to determine factors affecting job satisfaction among academic professionals in tertiary institutions of Zimbabwe against the backdrop of high brain drain in the sector. A total of eighty respondents were selected randomly from departmental lists and interviewed using structured questionnaires. Key informants such as administration personnel were also interviewed using semi-structured schedules. The results of the study showed that a greater proportion of the academic staff was not satisfied with their jobs. Reasons for dissatisfaction include high volume of work, inadequate salaries, allowances, loans to facilities purchase of housing stands and cars. There is need to craft a responsive incentive package that addresses the concerns of academic staff on issues related to job satisfaction and thus stave off international migration to other countries.

**Keywords:** Job satisfaction, academic staff, migration, Universities, Zimbabwe.

## INTRODUCTION

Southern Africa has been witnessing an upsurge in the departure of technical expertise in virtually all sectors over the last five years (Stilwell, 2003). This has resulted in qualified personnel seeking greener pastures abroad. Movement of people from developing countries towards the developed world especially Europe and the Americas has been conspicuous. Anecdotes show that during the 1990s, total migration of professionals towards Western Europe and North America accounted for 30% of the flows registered throughout the world (ILO, 1996). It is estimated that in 2000 approximately 175 million people, or 2.9% of the world's population, were living outside their country of birth, compared to 100 million, or 1.8% of the total population, in 1995 (Stilwell, 2003).

In Zimbabwe, loss of qualified personnel has been varying across sectors but it has been particularly felt in sectors such as education, health, industry and commerce (GOZ, 2002). Whilst a number of factors such as the inimical macro-economic environment could explain the

loss of human resources in the country, job satisfaction is often identified as one of the factors that influence the decision to quit. Various studies (Onu et al., 2005; Sur et al., 2004; Tutuncu and Kozak, 2006; Knowles, 1978, Salmond, 2006; Wiedmar, 1998; DeVaney and Chen, 2003; Greenberg, 1986) have identified factors that influence job satisfaction. These include inter-personal relationships, conditions of service, type of social insurance possessed, supervision, promotion, job design, organizational environment, age, gender, equal treatment by management, income and attitude. Much of the discussion on job satisfaction has been done in the context of the developed countries with few studies in the developing countries.

Tertiary institutions particularly universities in the country have been facing significant losses of qualified staff. This compromises the quality of education and complicates implementation of strategic plans requisite to the expansion of institutions. The tendency has been that a reduced staff turnover is experienced when there are wa-

wage and allowance increments. However, the moment the incremental benefits are eroded by inflation, the cycle of losses resurfaces. The broad objective of this study is to ascertain the factors that affect job satisfaction among academic professionals in tertiary institutions of Zimbabwe.

## Literature review

### Perspectives to job satisfaction

Smith (1969) perceived job satisfaction as the "extent to which an employee expresses a positive orientation towards a job". Wikipedia (2007) notes that job satisfaction describes how content an individual is with his or her job. Job satisfaction has also been defined as a pleasurable emotional state resulting from the appraisal of one's job, an affective reaction to one's job and an attitude towards one's job (Brief, 1998). Weiss (2002) argued that it is an attitude but pointed out that researchers should differentiate between the objects of cognitive evaluation which affect (emotion), beliefs and behaviours. Other authors argue that job satisfaction may include factors such as workload, physical conditions, and career aspirations of individuals. Job satisfaction is often described as the quality of life at work as experienced by the employee, and the condition that could be promoted by social responsibility programs executed by the employer.

Furnham (1992) categorizes factors that can have an influence on job satisfaction into three groups namely: i. Organizational policies and procedures that have to do with the nature of the remuneration package, supervision and decision-making practices, and the perception of the quality of supervision. ii. Aspects of the total workload, the variety of skills applied, autonomy, feedback and the physical nature of the working environment iii. Personal aspects such as self-image, ability to deal with stress and general satisfaction with life.

According to Wanous and Lawler (1972) there is a serious lack of good theory about the very meaning of employee-satisfaction....' hence the conflicting results found in many studies on job satisfaction are a manifestation of the unavailability of a generally accepted definition of job satisfaction (Locke and Latham, 1990), and different terms being used interchangeably with other terms such as 'morale, employee satisfaction, attitudes and opinions' (Brayfield and Crockett, 1955; Deci and Ryan, 1985; Guion, 1958; Lazarus and Folkman, 1984, Thierry and Hacker, 1990). However, employee-satisfaction in one form or another has been related to such variables as turnover, absenteeism, productivity, group cohesiveness, general hygiene factors, job reward, personnel rights, labour, unrest and performance appraisal (Barber et al., 1992; Danhoff, 1993).

Job satisfaction has also been correlated with factors related to the work itself or to the outcomes (such as the rewards for excellence and performance) directly derived

from it such as the nature of employees' jobs, achievement of work, promotional opportunities and chances for personal growth and recognition (Greenberg, 1986). Previous research has also focused on the relationships between job satisfaction and the following variables: performance, autonomy, supervisor support, equitable wages, social stimulation, working environments and personality variables (Organ, 1988). Job satisfaction is a multi-pronged concept affected by interplay of factors emanating from the business environment, government policies and personality factors.

### Determinants of job satisfaction

Job satisfaction in organizations has been receiving increasing attention because it reduces employee turnover, absenteeism, tardiness, and health setbacks due to stress. Workers who are satisfied at their workplaces show positive attitudes in their homes and make a psychologically healthy society. Many of the studies on job satisfaction have been done focusing on different economic sectors and perspectives such as agriculture, commerce, health and education.

According to DeVaney and Chen (2003), demographic variables such as age, gender, race, and education have an effect on job satisfaction. It has been shown, for instance, that older workers are more likely to be satisfied than younger workers and also that non-white employees are less satisfied than white employees. Work related variables such as whether the job is interesting, good relations with management, job security (permanent or contract jobs), higher pay, a sense of control over one's work were identified as important factors underlying job satisfaction (Miller, 1980; Souza-Poza, 2000).

Onu et al. (2005) examined the factors affecting job satisfaction of field extension workers in Enugu State Agricultural Development Programme in Nigeria using a sample of Forty-two extension staff randomly selected across three agricultural zones. The field extension workers indicated low level of satisfaction with their job content, conditions of service and working environment, which were subsequently identified as key factors that could enhance job satisfaction among extension personnel in Nigeria. Salmond (2006) used a sample of 437 nurses drawn from 20 different states in the United States. The Karasek's job demand-control-support model was used as the theoretical framework for the study. Variables used to predict job satisfaction in the analysis included personal factors of educational level, certification level, continuing education credits, years of experience, and perceived competence (self-efficacy) and organizational factors of social support, professional practice environment, type of hospital, and type of unit. The organizational environment or Professional Practice.

Environment Score (PES) was identified as the main determinant of job satisfaction among nursing staff in the 20 states. Tutuncu and Kozak (2006) measured job satisfaction in the Turkish Hotel industry using a job satisfac-

tion index. Attributes such as the work itself, supervision, and promotion were noted as the determinants of the level of overall job satisfaction among Turkish hotel workers. DeVaney and Chen (2003) conducted a survey of job satisfaction among 211 graduates in financial services in the US using Ordinary Least Squares (OLS) as the analytical tool. The aspects of job satisfaction measured in the study were attitude to the job, relations with fellow workers, supervision, company policy and support, pay, promotion and advancement, and customers. Realization of expectation, company support, attitude, relations with fellow workers, pay, and gender were significant determinants of job satisfaction. Four factors in the regression analysis were not significantly related to job satisfaction namely job security, opportunity for promotion, age of the graduate, and stress. The study however, did not indicate why the four aforementioned factors were not statistically insignificant. Sur et al. (2004) investigated job satisfaction among 855 dentists selected from 9 provinces in Turkey. Job satisfaction was conceptualized intrinsically and extrinsically and items were rated using a 5-point likert scale. The type of social insurance, the amount of monthly income, and the number of patients examined per day were the most common and statistically significant predictors of intrinsic, extrinsic, and overall satisfaction among Turkish dentists. A cross-sectional survey was done by Knowles (1978) to determine job satisfaction among supervisors in Australia using job satisfaction questionnaires. Job design and organizational factors emerged as the main factors underlying job satisfaction. Ito et al. (2001) surveyed 1494 nurses in employed in 27 psychiatric hospitals in Japan and used the National Institute for Occupational Safety and Health job stress questionnaire to study job satisfaction. Forty-four percent of the respondents wanted to leave their job, and 89% of those perceived a risk of assault. Younger age, fewer previous job changes, less supervisory support, lower job satisfaction, and more perceived risk of assault were significant predictors of intention to leave. Wiedmar (1998) used age, education level, sex, shift, and part or full-time status as the factors constituting job satisfaction in Wal-Mart Supercenter in St Joseph, Missouri. Equal treatment by management, sex and employees seeing them as part of the organization's future were important variables. However, educational level and age were not significant predictors of job satisfaction. Job satisfaction tends to vary from country to country depending on job-culture fit. It has been noted that Americans value achievement, equity, democracy and ambition. English- Canadians are said to value competition, achievement, independence and pragmatism while French-Canadians value spiritual and society oriented outcomes and Japanese value self-respect, helpfulness and forgiveness. High job satisfaction has been recorded among Americans (80%) while low job satisfaction 14% has been recorded among the Japanese because the Japanese assign workers to jobs despite their interests where-

as Americans look at the worker personality and preferences (Robbins, 1998).

Employees prefer work situations that allow them to use all their skills, mentally and physically, freedom and quick feedback on their work performance though it has been noted that excessive challenge to one's abilities may bring in frustrations (Robbins, 1991). Workers prefer jobs that reward them on the basis of what they perceive as economically justifiable (Robbins, 1991). It is not the amount of money one receives but it's the job-wage congruence based on worker perception that leads to job satisfaction. Supportive work environments that do not pose perceived danger such as fire, and accidents, are more preferred by employees. Provision of adequate and appropriate working equipment and clean facilities are related to high job satisfaction (Robbins, 1998). From literature the parameters that generally influence job satisfaction include age, income, conditions of service, working environment, gender, treatment by management, promotion, realization of expectation, company support and attitude.

### **Study propositions**

This study hypothesizes, using literature as its basis, that job satisfaction of academic professionals is determined by the following: 1. Lecturers with greater working experience are more likely to be satisfied with their jobs than the younger lecturers. 2. Lecturers are more satisfied with higher levels of income. 3. Lecturers with a high number of dependants are less likely to be satisfied because of greater monetary demands from large family. 4. Lecturers are more likely to be satisfied with a conducive working environment (adequate computing facilities, teaching aids and stationery). 5. Lecturers are more likely to be satisfied with a good incentive package (car and housing loans, payment of school fees for children). 6. Tenured lecturers are more likely to be satisfied because their jobs are more secure than contract lecturers. 7. Gender has a significant effect on job satisfaction (has been found to vary; DeVaney and Chen, 2003). 8. Lecturers are more likely to be satisfied in the presence of good interpersonal relationships.

## **RESEARCH METHODOLOGY**

### **Research philosophy**

Leedy (1980) argues that most researchers combine pure and applied research in the manner they feel that the "ultimate goal is a study that is helpful in solving social problems and at the same time making a valuable contribution to the theoretical social-science literature". In this study, both qualitative and quantitative techniques were used. Research in most social science disciplines is positive, normative or pragmatic. If the research is after problem solving, the research employs a positive approach that attaches importance to statistical evidence and the consequent prioritization of statistical data for policy-making (Platt, 1996).

**Table 1.** Variables included in the specification of the binary logistic regression model.

Variable	Variable description	Variable coding
Relationships	Inter-personal relationships	1-Satisfied, 0-Not satisfied
Sex	Gender of employee	1-Male, 2-Female
Dependents	Number of dependents	
Job status	Tenure status of employee	1-Temporary, 2-Permanent
Working experience	Number of years of working at institute	
Availability of facilities (computers, stationery, books and projectors)		Total score ranging from 1 to 4
Inter-personal relationships		1-Satisfied, 0-Not satisfied
Salary	Satisfaction with salary	1-Satisfied, 0-Not satisfied
Loans	Satisfaction with loan facilities at institution	1-Satisfied, 0-Not satisfied
Medical fees	Satisfaction with medical cover	1-Satisfied, 0-Not satisfied
Allowances	Satisfaction with allowances	1-Satisfied, 0-Not satisfied
Work volume	Satisfaction with volume of work	1-Satisfied, 0-Not satisfied
Personal growth	Satisfaction with opportunities for personal growth	1-Satisfied, 0-Not satisfied
Supervision	Satisfaction with supervision	1-Satisfied, 0-Not satisfied

Most micro-studies employ positive methods. On the other hand, the normative approach is based on moral values and therefore subjective. Pragmatic methodology is most useful for research that is undertaken for policy analysis (Ayaya, 1997). This study was based on a pragmatic research methodology, which incorporated both positive and normative approaches to research. The use of quantitative data generated from the surveys gave the study the positive perspective while the organizational policy implications emanating from the analysis give the element of normativism by indicating what the situation ought to be like.

### Sampling frame

The sampling frame consisted of male and female lecturers at three State Universities in Zimbabwe. The sampling frame was constructed from lists of lecturers obtainable from the different departments at the institutions. Departments included in the survey were education, commerce, agriculture and environmental science.

### Sampling method

A multi stage sampling method was used to select respondents for inclusion in the survey. This sampling process recognized the different academic departments at Universities. Thus if one were to use simple random sampling, subjects included in the survey will not be representative of the population. Each department was defined as strata and also the male and female lecturers were defined as sub-strata. The first stage was concerned with the selection of departments to be included in the survey. The second stage involved the selection of male and female lecturers for interview using a simple random sampling method.

### Data collection

Primary and secondary sources of data were used in this research. A questionnaire was designed and administered to participants. Interviews were conducted in institutional and organizational premises after permission to undertake the study was granted by the relevant authorities. The questionnaire was constructed on the

principles of the Minnesota Satisfaction Questionnaire (MSQ). The (MSQ) measures the extent to which participants were satisfied with their current jobs. The questionnaire included questions on working conditions, importance of skills learnt, interpersonal relationships and the physical conditions. It also included a single global rating question on overall satisfaction. The questionnaire also comprised questions on work ethics. A total of 80 respondents were included in the survey. Small sample sizes can provide highly reliable findings depending on the sampling procedures adopted (Schiffman and Kanuk, 1997).

Secondary data was collected from the Universities administration departments on the numbers of academic staff in each department using semi-structured interviews.

### Stakeholders in the data collection process

The primary stakeholders in the data collection process were the lecturers. However, the following key respondents were also involved in the survey: i. Human resources managers. ii. The Vice Chancellors. iii. Ministry of Higher Education

### Analytical tools

Inferential statistics were used to summarize data generated by the structured questionnaire. A binary logistic regression model was used to determine the extent to which the identified factors affect

**Table 2.** Departments from which respondents were selected

Department	%
Agriculture	25
Commerce	28
Education	25
Environmental science	22
Total	100

**Table 3.** Relationship between job satisfaction and level of skills utilization.

Level of skills utilization	Job satisfaction	
	Yes	No
Low	3 (20%)	12 (80%)
High	19 (29%)	46 (71%)
Total	22	58
$\chi^2$ value: 0.521, P=0.470		

**Table 4.** Relationship between job satisfaction and job security.

Job security	Job satisfaction	
	Yes	No
Not secure	2 (33%)	4 (67%)
Secure	20 (27%)	54 (73%)
Total	22	58
$\chi^2$ value: 0.111, P= 0739		

job satisfaction. Variables included in the model were informed by literature mainly DeVaney and Chen (2003). The researchers primary interest was to find the conditional expectation of the dependent variable given more than one conditioning variables.

The model can be illustrated as:

$$Z_i = \text{Log} \{P_i / (1-P_i)\} = B_0 + B_1X_1 + B_2X_2 + \dots + B_nX_n + U$$

Where:  $i = 1, 2, \dots, n$  are the observations.  $B$ = the regression parameter to be estimated.  $BX$ = linear combination of independent variables.  $Z_i$  = the log odds of choice for the  $i^{\text{th}}$  observation.  $P_i$  = the probability of observing a specific outcome of the dependent variable.  $X_n$  = the  $n^{\text{th}}$  explanatory observation.  $U$  = the error term.

Job satisfaction was operationalized using Yes/No questions thus it was a dichotomous dependent variable. The description of the variables included in the specification of the binary logistic regression model is shown in Table 1.

#### Forward selection of variables

This approach entailed the sequential entry of independent variables in the logistic regression model. The probability associated with the F-statistic was used as the basis for entry of variables. The purpose of this procedure is to identify subsets of variables are good predictors of the dependent variable (Norussis, 1990).

#### Cross tabulations

Cross tabulations were used to assess the relationship between two categorical variables. According to Norussis (1990), cross tabulations can be used to statistically test whether two categorical variables are independent or dependent. Pearson chi squared values and associated probability values (P-values) were used to ascertain the statistical significance of relationships.

#### Friedman's rank test

The Friedman's rank test, a non-parametric test, is used in situations where the data are nominal or ordinal in orientation (Norussis,

1990). In this study, the test was used to rank the importance of facilities and incentives among respondents.

## RESULTS AND DISCUSSIONS

### Demographic characteristics of respondents

Respondents included in the survey were drawn from four academic departments namely agriculture (25%), commerce (28%), education (25%) and environmental science (22%), Table 2. Of the 80 people interviewed, 65 were male and 15 were women comprising 81 and 19% of the sample. The reason for 19% female respondents owes to the small number of female lecturers in Universities. A significant proportion of the staff compliment interviewed (79%) indicated that they were married.

### Tenure and job satisfaction

Employment status (whether permanent or contract) is often identified as one of the factors that influence one's perception towards one's job (Furnham, 1992). This variable was included to ascertain whether there is an association between employment status and job satisfaction. Eighty (80%) of the respondents were permanent whilst 20% are temporary. Furthermore, 65.6 and 100% of permanent and temporary employees respectively, were not satisfied with their jobs. Overall, 72% of the lecturers were not satisfied with their current job.

### Relationship between job satisfaction, job security and level of skills utilization

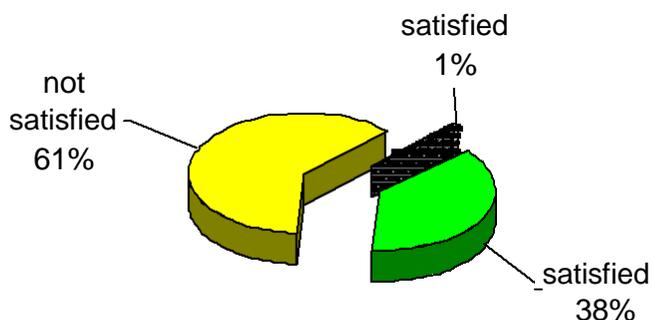
Respondents were asked to give their opinions vis-à-vis job security. Most lecturers felt generally secure (78%) as most of the respondents in the sample were permanent employees. However, most respondents opined that their skills were moderately utilized by their various institutions (63%). Cross-tabulations were then used to relate job satisfaction and job security as well as the levels of skills utilization. Even though most employees indicate that their jobs were relatively secure, most of them (73%) expressed overall dissatisfaction. Only 29% of respondents who indicated that their skills were highly utilized were satisfied with their jobs whilst 71% were not. Both variables were however, not significant at the 5% level, indicating no significant association with overall job satisfaction (Tables 3 and 4). The implications of these findings are discussed under the binary logistic regression model results.

### Volume of work

Volume of work was defined as the number of duties assigned to individuals for example, number of courses

**Table 5.** Effectiveness of different modes of information flow

Mode of information flow	Effectiveness (rank) 1 through 4 (mean scores)
Grapevine	2.17
Memorandums	2.19
Electronic (e-mails and telephone)	2.23
Verbal	3.41



**Figure 1.** Perceptions of respondents towards volume of work.

taught and number research projects supervised. The perceptions towards volume of work are shown in Figure 1. Approximately two-thirds (61%) of the respondents were not satisfied with the volume of work.

### Personal growth and development

The extent to which the prevailing organizational environment fosters personal growth and development was also elicited. 67.5% of the respondents felt that the current environment does promote personal growth and academic advancement.

### Extent of motivation

It was established that 52.5% of the respondents were of the opinion that the Universities offered incentives to motivate employees. However, most of the respondents in this category were moderately satisfied with the set of incentives. Of note, is also the high proportion of respondents (46.3%) who do not feel motivated at all.

### Interpersonal relationships and team work

Contemporary theory on human resource management agitates for the exploitation of existing synergies among employees as opposed to individualism. Thus, respondents were asked to shed light on the extent to which the organizational culture at universities fosters good working relations and inter-personal relations. 52.6% were satisfied and 47.4% were not satisfied with the organizational culture that characterizes universities

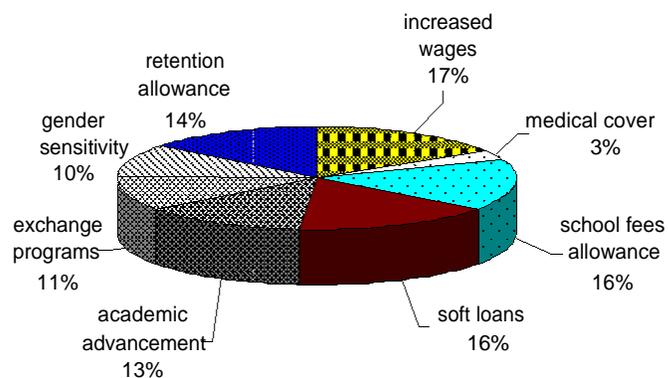
since they felt it did not facilitate development of inter personal relations.

### Feedback structures

There was polarity of views as far as supervision was concerned with half of the respondents satisfied and the other half dissatisfied. This however, varied from department to department.

### Communication and information flow

Respondents agreed that information flow is generally effective within the institutions. However, there were differing views as to which type of information flow was most effective (Table 5). Effectiveness of the different modes of information flow was gauged through use of Likert scales ranging from 1-very effective, 2-effective and 3-not effective. The smallest score implies greater effectiveness and conversely a higher score indicates lower effectiveness. The Friedman Test was used to rank the different modes of information flow. According to the results, grapevine emerged as the most effective way of disseminating information, followed by memorandums, and electronic forms as well as verbal. Electronic forms of information flow were rarely used since there are inadequate Internet and telephone facilities.



**Figure 2.** Ideal incentive packages suggested by respondents.

### Availability and distribution of facilities

The existence of facilities had a direct bearing on whether

**Table 6.** Availability and distribution of facilities.

Facility	Satisfaction with availability and distribution (1 very satisfied to 3 not satisfied) (mean score)
Computers	2.81
Projectors	2.71
Book resources	2.39
Stationery	2.09

an individual was satisfied or not. Of the existing stock of resources, computers (2.81) and overhead projectors (2.71) are the most problematic as shown by the average scores. However, most of them were generally satisfied with stationery (bond paper, pens, chalks etc). The ranking was found to be significant at the 5% level of significance (Friedman Test) (Table 6).

### Organizational ethics

Most of the lecturers (75%) indicated that they are satisfied with the current organizational ethics. Those who indicated dissatisfaction did not disclose reasons behind this dissatisfaction. As far as methods of conflict resolution are concerned, most of the interviewees indicated that there were not aware of the existence of such a function within the different universities.

### Ideal incentive package

Respondents were asked to state what they would consider as the ideal incentive package that is commensurate with their personal needs. The most important incentive raised by respondents was the issue of inflation-adjusted salaries against the backdrop of a hyper inflationary environment characterizing the country. This finding is consistent with DeVaney and Chen (2003) study, who noted pay or income as one of the main variables that significantly influences job satisfaction. In addition, provision of school fees allowances and soft loans for housing and cars were also eminent (Figure 2). Dunhoff (1962), Greenberg (1986) and Robbins (1998) confirmed the importance of economic wages and other appropriate organizational incentives as vital contributors to job satisfaction.

### Factors affecting job satisfaction (Table 7)

#### Sex of respondent

The value for sex of respondent is  $-0.516$  meaning that the probability of job satisfaction is lower for females than male employees. The gender variable was however not significant at the 5 or 10% level, resulting in the rejection of the hypothesis 7. Previous researchers such as Varca

et al. (1983) found out that at higher occupational levels, men expressed greater satisfaction because of greater opportunities for advancement. At Bindura University, for example, there were no female senior lecturers and Deans of Faculties at the time of doing the research, which could be a source of dissatisfaction among female lecturers.

#### Number of dependents

A value of  $-0.044$  means that employees with larger number of dependants are less likely to be satisfied with their current jobs. On the other hand, employees with smaller number of dependants are more likely to be satisfied with their jobs. The number of dependents is not statistically significant in its contribution to job satisfaction, resulting in the rejection of hypotheses 3. Whilst Miller (1980) and Barber et al. (1992) argued that the number of dependents has a bearing on employee satisfaction; lack of statistical significance of this variable in this study could be attributed to the fact that most respondents had relatively small number of dependents of 4 per household.

#### Tenure

The value for the job status of the respondents is  $-9.701$  implying that employees with permanent posts are more satisfied with their jobs than those with temporary posts. However, tenure was a not statistically significant variable at the 5% level, resulting in the rejection of hypothesis 6. This result contradicts Miller (1980) who noted that employees who were full time were more likely to be satisfied with their jobs than contract workers. This discrepancy is attributed to the fact that most of the respondent lecturers (80%) were permanent rather than contract-based workers.

#### Availability and distribution of facilities

A figure of  $-0.034$  indicates that an increase in the availability of facilities such as computers and teaching aids increases the probability of job satisfaction. This variable is not significant at the 5 and 10% levels in the rejection

**Table 7.** Binary logistic model results.

Variable	B coefficient	Significance, *P<0.05, **P<0.10
Inter-personal relationships	-1.080	0.155
Supervision	0.898	0.320
Sex	-0.516	0.587
Dependents	0.044	0.828
Job status	-9.701	0.782
Working experience	-0.12	0.776
Availability of facilities (computers, stationery, books and projectors)	-0.034	0.935
Salary	1.548	0.065**
Loans	-1.842	0.039*
Medical fees	-1.076	0.207
Allowances	2.015	0.042*
Work volume	-1.359	0.065**
Personal growth	0.584	0.425
Constant	21.363	0.761
Nagelkerke R square	0.50	

of hypothesis 4. Salmond (2006) observed that the environment within which employees operate under determines whether they are satisfied or not. However, non-significance could be attributed to the fact that facilities such as computers have been increasing steadily over the years.

#### **Interpersonal relationships**

The value for this variable was  $-1.080$  indicating that poor inter-personal relationships negatively affect job satisfaction. This variable was not significant at the 5% level, resulting in the rejection of hypothesis 8. This contradicts the findings from Onu et al. (2005) who found out that inter-personal relationship had an important impact on job satisfaction. This is linked to the fact that not many problems were experienced with inter-personal relationships as more than 50% of the respondents indicated that they were satisfied.

#### **Salary**

In this study, the coefficient of the dummy variable was 1.548, implying that job satisfaction increases in the presence of a satisfactory income confirming hypothesis 2. The salary variable was statistically significant at the 10% level. This is consistent with Sur et al (2004) study of tourism employees in Turkey who indicated that income was an important factor affecting job satisfaction.

#### **Working experience**

According to the study results, the coefficient for working experience was  $-0.12$ , indicating that less experienced lecturers were more likely to be satisfied than those with

greater working experience. However, this variable was not statistically significant, resulting in the rejection of hypothesis 1. This result is inconsistent with DeVaney and Chen (2003) who suggested that the employee's actual experience is important. This disparity could be attributed to the fact that there was no significant variation in experience among the respondent lecturers.

#### **Medical cover, allowances and loans**

Results of the study revealed that availability of loans and allowances had a significant impact on job satisfaction, whilst medical cover was not significant. These results are consistent with Onu et al. (2005) study in Nigeria who observed that auspicious conditions of service are important aspects of job satisfaction.

#### **Volume of work**

Increasing volume of work was associated with job dissatisfaction and this variable was statistically significant at the 10% level. Previous researchers such as Tutuncu and Kozak (2006), Robbins (1991) and Sur et al. (2004) showed that the most employees are not satisfied if the volume of work results in stress.

#### **Personal growth and development and supervision**

Personal growth and supervision were not statistically significant predictors of job satisfaction among respondents. This result is not consistent with Ito et al (2001) and Tutuncu and Kozak (2006) and this could be attributed to the fact that most respondents were satisfied with the supervision and opportunities for personal development being offered at their institutions.

**Table 8.** Forward selection of variables in the binary logistic regression model.

Step	Variable	B	Significance
Step 1 <sup>a</sup>	Job Status	-8.580	0.730
	Constant	17.783	0.721
Step 2 <sup>b</sup>	Loans	1.127	0.049
	Job Status	8.503	0.726
	Constant	18.306	0.707
Step 3 <sup>c</sup>	Loans	1.401	0.021
	Allowances	1.231	0.074
	Job Status	8.207	0.730
	Constant	17.553	0.713
Step 4 <sup>d</sup>	Salary	1.567	0.059
	Loans	2.053	0.009
	Allowances	1.843	0.035
	Job Status	9.753	0.721
	Constant	17.33	0.709
Step 5 <sup>e</sup>	Salary	1.576	0.024
	Allowances	1.843	0.022
	Job status	-9.753	0.788
	Work volume	1.376	0.040
	Loans	2.053	0.004
	Constant	20.812	0.774
Nagelkerke R Square		0.500	

**Table 9.** Change in R square in forward selection of variables.

Step 1	Nagelkerke R square
Job Status variable entered	0.202
Loans variable entered	0.266
Allowances variable entered	0.317
Salary variable entered	0.372
Work Volume entered	0.433

### Validity of the binary logistic regression model

Approximately 50% of the total variation (as shown by the Nagelkerke R-squared) in the dependent variable was explained by four independent variables namely salary, volume of work, satisfaction with loan facility and allowances. The relatively low r-squared is typical of cross-sectional data as argued by Gujarati (2004). The overall model was significant since  $P < 0.05$ , implying that sample results are reliable. The forward selection procedure and its effects on the Nagelkerke R-squared values are depicted in Tables 8 and 9.

### Conclusions

Most of the respondents interviewed were generally dissatisfied with their jobs, resulting in a negative attitude towards delivery of work. Dissatisfaction mainly emanated

from inadequate salaries and allowances, loans to facilitate purchase of houses, housing stands and cars as well as increasing volume of work. However, inter-personal relationships, job security, supervision, opportunities for personal development and working experience did not significantly affect job satisfaction.

### Recommendations

In order to stave off the massive exodus of lecturers at universities, the following is recommended: 1. Provision of inflation-adjusted salaries. 2. Provision of adequate allowances for staff. 3. Provide housing and car loans. 4. Create an environment that encourages teamwork and reduce the work burden among staff

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