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Full Length Research Paper

Motivation and Academic Staff Research Productivity in Chartered Private Universities in Uganda

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This study investigated the influence of motivation factors on academic staff research productivity in chartered private universities in Uganda. The study used the descriptive cross-sectional survey design using qualitative and quantitative approaches on academic staff in the universities. Data were collected using questionnaire survey and an interview guide. Data were analyzed using descriptive and inferential methods. Descriptive statistics and qualitative findings revealed that research productivity, intrinsic and extrinsic motivation of academic staff were fair. Regression analysis revealed that while intrinsic motivation had a positive significant influence on research productivity, extrinsic motivation had a positive but insignificant influence on research productivity. Therefore, it was concluded that the motivation factor of intrinsic motivation is imperative for research productivity but extrinsic motivation has marginal contribution to research productivity of academic staff. It was thus recommended that management of universities should establish strategies for promoting intrinsic motivation in order to promote research productivity of academic staff and efforts should be made to increase extrinsic motivation offers including higher pay to enhance motivation of academic staff.

Keywords: Extrinsic, intrinsic, research productivity, technological progress

INTRODUCTION

Traditionally, the role of higher education academic staff was primarily to transmit knowledge based on the assumption that the educator knew everything and it was his or her job to transmit that large wealth of knowledge onto the students (Wa-Mbaleka, 2015). However, today learners are no longer dependent on educators only because they can now access knowledge everywhere with the assistance of computer and information technology (Chen et al., 2016). Now, it is no longer unusual to have students who know more about a topic than their professors. Thus, the role of academic staff is no longer about transmitting knowledge only but has shifted more importantly to generating and disseminating knowledge through scholarly conference presentations and journal publications (Wa-Mbaleka, 2015).

The pressure to publish not only comes from the institutions academic staff work for but also from the academic staff themselves motivated by the prospects of enhancing their professional reputation, leaving a permanent mark on their profession, and increasing their salary and job mobility (Miller et al., 2011). However, despite the factors pressuring academic staff to publish, in Uganda publication by academic staff in private universities is low. There is a growing chorus of criticism about the quality of research in Uganda's private universities. The quality and quantity of research in these universities is not satisfactory as well and yet, Institutions have continued to allocate less than 1% of their funds to the research function and sometimes the funds are never utilized at all since National Council for Higher Education

(NCHE) hardly receives any reports on the research projects going on in most of these universities (Atwebembeire et al., 2018). The international ranking of private universities is equally poor. While the best private Ugandan university ranked in position 4721 in the world, the best public university ranked 1083 going by the ranking Web Metrix released in January 2020. However, there is limited empirical evidence about factors affecting research productivity in private universities in Uganda. This study thus investigated factors affecting research productivity of academic staff in private chartered universities in Uganda looking at motivation of academic staff.

LITERATURE REVIEW

Theoretical Review

The Expectancy Theory by Victor Vroom, (1964) underpinned this study. The Expectancy Theory postulates that an individual tends to act in a certain way based on the expectation that the act will be followed by a given out come and on the attractiveness of that outcome to the individual (Robbins et al., 2014). Three elements of Expectancy theory are expectancy, instrumentality and valence (Estes and Polnick, 2012). Expectancy is the probability by the individual that exerting certain amount of efforts will lead to a certain amount of performance. Instrumentality is the degree to which the individual believes that performing to a particular level is instrumental in attaining a desired outcome. Valence is the importance that the individual places on the potential outcome or reward achieved on the job. Valence considers both the goals and the needs of the individual (Robbins et al., 2014). The expectancy theory suggests that expectancies, instrumentalities, and valences interact psychologically within an individual's beliefs to create a motivational force that in turn influences behaviour. When deciding among behavioural options, individuals select the option with the greatest motivation forces (Estes and Polnick, 2012). The expectancy theory posits that motivation both intrinsic and extrinsic affect productivity. The Expectancy Theory was the basis for relating intrinsic and extrinsic motivation to research productivity of academic staff in private chartered universities in Uganda.

Intrinsic motivation and research productivity

There are a number of scholars that have analysed the relationship between intrinsic motivation and research productivity. Abdulsalam and Mawoli, (2012) studied motivation and job performance of academic staff of state Universities in Nigeria. Their correlation results revealed a significant positive correlation between motivation and teaching performance but the correlation between motivation and research performance was negative. Alrahlah, (2016) carried out an exploratory study on the impact of motivational factors on research productivity of dental faculty members of King Saud University in Saudi Arabia. The findings showed that intrinsic motivation influenced research productivity hence leading to increase in their scope of knowledge, which in turn would make them better faculty members. In addition, increased research productivity improved their status within the global academic community. Chen et al. (2006) conducted research on accounting faculty members of business and accounting accredited Colleges of Business in the USA. The results showed that faculty members who assigned higher importance ratings to the intrinsic rewards of research exhibited higher research productivity. Esponilla II (2015) sought to identify research motivators that significantly influenced research productivity using staff of the Technological University of the Philippines. Regression results revealed that there was no statistically significant linear dependence of the mean of research productivity in terms of research publications, presentations, patents and copyrights on intrinsic motivation factors.

Further, Horodnic and Zaiţ, (2015) analysed the correlation between intrinsic motivation and research productivity of Romanian academics of economics and business administration. Regression results revealed that intrinsic motivation was positively correlated with research productivity. Kurtz et al. (2004) explored the intrinsic factors that drove and hampered research productivity of full professors of marketing employed at major universities in the United States. Their interviews revealed that the intrinsic factor of interest (in a particular topic or in research in general) had the highest influence on publishing. Ringelhan et al. (2013) in a cross-sectional study investigated the influence of intrinsic motivation on research performance using young scholars in academia from the fields of business and economics in Germany. The findings revealed that intrinsic work motivation had a direct influence on research performance. From the literature above, contextual and empirical gaps emerged. At contextual level, none of the studies was carried out in the context of Uganda. At empirical level, the study by Esponilla II (2015) produced controversial results revealing that there was no statistically significant relationship. These contextual and empirical gaps made it necessary for this study in the context of universities in Uganda to further test whether:

H_1: Intrinsic motivation influences research productivity of academic staff in private universities.

Extrinsic motivation and research productivity

Several scholars have analyzed the relationship between

extrinsic motivation and research productivity. For example, Abdulsalam and Mawoli, (2012) examined the relationship between motivation and job performance of academic staff of state Universities in Nigeria. Their results revealed a negative correlation between motivation and research performance. Chen et al. (2006) in examination of key factors that motivated business faculty members in Colleges of Business in the USA established that faculty members who assigned higher importance ratings to both the extrinsic rewards of research exhibited higher research productivity. Chen et al. (2010) in study on intrinsic and extrinsic motivators that influenced faculty members in Colleges of Business in the USA revealed that the extrinsic rewards of promotion and pay raises were highly valued by faculty at both doctoral granting and non-doctoral granting programs and highly impacted by research output. Esponilla II (2015) sought to identify research motivators that significantly influenced research productivity in the Technological University of the Philippines. The findings indicated no statistically significant linear dependence of the mean of research productivity in terms of research publications, presentations, patents and copyrights on intrinsic and extrinsic motivation factors.

Chang and Mills, (2013) evaluated the results of a reward system on resident research activity among otolaryngology residents at a single otolaryngology residency program at the University of Missouri. The results revealed that a monetary reward system provided a way to encourage academic productivity serving as a mechanism for positive reinforcement. Horodnic and Zaiţ, (2015) in an exploration of whether research productivity correlated with extrinsic motivation used Romanian academics of economics and business administration. Their Tobit regression results revealed that extrinsic motivation was negatively correlated. Kurtz et al. (2004) explored the intrinsic and extrinsic factors that drove and hampered research productivity of full professors of marketing employed at major universities in the United States. Their interviews revealed extrinsic pressure of achieving tenure and/ or promotion influenced motivation for publishing. Ramli and Jusoh, (2015) in a critical review analysing research productivity of Malaysian Research University (RU) revealed that extrinsic factors namely promotion, salary, administrative assignment, and teaching load influenced research productivity. Overall, the literature above revealed that an attempt had been made by scholars to investigate the influence of extrinsic motivation on research productivity of academic staff. However, contextual and empirical gaps emerged with some scholars producing controversial results. For instance, while most studies revealed that extrinsic motivation influences research productivity, Abdulsalam and Mawoli, (2012) and Horodnic and Zaiţ, (2015) revealed that it had a negative influence while Esponilla II (2015) indicated that it had an insignificant influence. These contextual and empirical gaps made it necessary for this study to investigate whether:

H_2: Extrinsic motivation influences research productivity of academic staff in private universities in Uganda.

METHODOLOGY

Research design and sample

The study adopted the descriptive and cross-sectional research designs. The descriptive design helped in gathering data that described the study problem and its antecedents using tables and explanations that provided narrative descriptions. The cross - sectional design helped to obtain useful data in a relatively short period using a questionnaire survey and an interview guide. A mixed research approach involving both quantitative and qualitative approaches was adopted. The sample was selected using stratified random sampling and purposive sampling. The data for the questionnaire survey were collected from a sample of 210 academic staff while data for interviews were collected from four senior academic staff from the four private universities in Uganda that were Kampala University, Ndejje University, Bishop Stuart University and Islamic University in Uganda. The data were collected using a questionnaire survey and an interview guide. During data collection, research ethics were emphasized by respecting the rights of others. For instance, the research acknowledged all sources used in the study, obtained informed consent from the respondents, ensured anonymity, confidentiality and respect for privacy.

Data collection instrument

Data collection involved use of self-administered questionnaire (SAQ) containing close ended questionnaire items and an interview guide comprising unstructured question items. The SAQ comprised three sections that background characteristics, the dependent variable (research productivity) and the independent variable (motivation). For the SAQ, the question items on background characteristics were on education level, terms of employment and position in the hierarchy. The question items on research productivity were adopted from Abba and Mugizi, (2018). Motivation was studied in terms of intrinsic and extrinsic motivation. Items for intrinsic motivation were obtained from Özutku, (2012) and Tremblay et al. (2009). The items on extrinsic motivation were obtained from Tremblay et al. (2009). The SAQ helped in collecting quantitative data while the interview guide collected qualitative data.

Data quality control

Quality control was ensured by attaining validity and

reliability of the questionnaire. To attain validity of the Self-Administered Questionnaire (SAQ), data collected was subjected to Exploratory Factor Analysis (EFA) using SPSS with only those items loading highly that is above 0.50 (Coetzee et al., 2017) being considered valid. For reliability, the data was subjected to Cronbach's alpha. Reliability of the different constructs was attained at above 0.70. Validity and reliability results are presented in the section of results. For the interview guide, the methods of credibility, dependability and confirmability were used. Credibility involved ensuring that the research findings represented views of the interviewees, dependability involved ensuring that findings, interpretation and recommendations were supported by the data collected and confirmability established that data and interpretations of the findings were clearly derived from the data collected (Korstjens and Moser, 2018). Thus, the data collected was valid and reliable.

Data management and analysis

The data collected was coded, entered into the computer using SPSS and frequency tables drawn to edit the data. The data was transformed to create indices and tested for normality. Thereafter, data was analysed using descriptive and inferential analyses. Using tables' descriptive analysis involved means and inferential analysis was carried out using correlation and regression. Correlation analysis was carried out to establish the relationship between the independent (motivation) and dependent variable (research productivity) as a preliminary level of analysis. Regression analysis was carried out to establish whether the independent variable influenced the dependent variable. Correlation and regression analyses provided data for inferential analysis.

RESULTS

Background characteristics

The results in (Table 1) show that the typical respondent had a master's degree (71.9%), was on contract (85.2%) and academic staff only (58.6%). The data was as presented in Table 1.

Research productivity of academic staff

Research productivity was studied as a unidimensional concept. The results on research productivity of academic staff include frequencies, percentages, means, factor loadings and Cronbach's alpha (α). The results were as presented in (Table 2).

The results in (Table 2) revealed that the overall mean = 2.80 suggesting that research productivity in the Universities were fair because based on the scale used, three represented undecided or average (fair). Factor Analysis revealed that the items on research productivity could be reduced two to factors but the last item did not load. The items with factor loadings of 0.5 and above were considered valid. The item that did not load was dropped from subsequent analysis as it was regarded invalid. The Cronbach's alpha = 0.85 suggested that the items were reliable. To the interview question asking management academic staff to give their opinions on research productivity of the academic staff in their universities, several responses were given. The key include those that follow below;

One interviewee stated; "*The rate of research in this university is low but gradually has been increasing because research is the basis for promotion of staff. This is because those who are able to publish their research findings in peer reviewed journals have higher opportunities of getting promoted*." In relation to the above, another interviewee said; "*There has been increase in research because severally they have been reminded of the phrase, 'publish or perish' during meetings. This has awakened academic staff and slight increment in research can be seen*." However, a lot is still needed because very few are actively involved in research. Further, another interviewee remarked, "*Efforts by lecturers towards research are improving because in every department at least there is a member that has at least published a journal article or any other publication*." However, another interviewee stated, "*Research levels are still low and those publishing are doing so in less credible and predatory journals. A number of lecturers have remained at the same stage without being promoted because of failure to publish*."

Interview data above suggest that research level of academic staff was low although it was beginning to increase. The finding that research productivity was low concurred with the descriptive statistics results which indicated that research was just fair. Therefore, research productivity in private universities in Uganda was still at a low level.

Results on intrinsic motivation

Intrinsic motivation were conceptualized as the first aspect of motivation factors. Intrinsic motivation was studied using eight items and the results on the same were as presented in (Table 3).

The results in (Table 3) revealed that the overall mean = 2.61 implying that intrinsic motivation of academic staff was fair because based on the scale used, three represented undecided or average (fair). Factor Analysis revealed that the items on intrinsic motivation could be

Table 1. Background characteristics.

Items	Categories	Frequency	Percent
Education level	Bachelor's Degree	39	18.6
	Master's Degree	151	71.9
	Doctorate (PhD)	19	9.0
	Others	1	0.5
	Total	210	100.0
Terms of employment	Permanent staff	26	12.4
	On contract	179	85.2
	Other	5	2.4
	Total	210	100.0
Position in the hierarchy	Administrative position	87	41.4
	Academic staff only	123	58.6
	Total	210	100.0

Table 2. Results for research productivity.

Research Productivity Items	Means	Factor loadings	α
I have presented a paper at an international conference	2.72	0.813	0.85
I have published with international publishers	2.89	0.788	
I have authored a scientific peer-reviewed bulletin (s)	2.68	0.771	
I have presented a paper at a local conference	3.02	0.767	
I have authored a journal article (s)	3.06	0.764	
I have written a technical report (s)	2.97	0.759	
I have been able to produce an occasional paper (s)	2.91	0.731	
I have authored a working paper (s)	2.96	0.730	
I have published with local publishers	2.75	0.705	
I have a patented and certified invention (s)	2.64	0.632	
I have authored a textbook (s)	2.14	0.876	
I have written a book chapter (s)	2.46	0.846	
I have co-authored a textbook (s)	3.20	-	
Overall mean	2.80		

Table 3. Results for intrinsic motivation.

Intrinsic Motivation Items	Means	Factor loadings	
I work because of the satisfaction I experience when I am successful at doing difficult tasks in this University.	2.92	0.819	0.72
My job in this university gives me much pleasure because I learn new things.	2.96	0.811	
The university has established for staff a formal suggestion system that guides making of quality improvement suggestions	2.38	0.625	
I have received appraisal feedback about my contribution to this university from colleagues, students and administrators.	2.48	0.529	
My contribution has been acknowledged with certificates or compliments among others.	1.97	0.872	
My contribution to this university is celebrated.	2.14	0.846	
I have received expressions of appreciation from administrators acknowledging my contribution to quality improvement.	2.88	0.811	
I work for the satisfaction I experience from taking on interesting challenges in this university.	3.14	0.573	
Overall mean	2.61		

reduced to three factors. All the items had factor loadings of 0.5 and above on one factor and were thus considered valid. The Cronbach's alpha = 0.72 suggested that the items were reliable. In the interviews, to the question requiring the interviewees to give their opinions on the intrinsic motivation of academic staff in the university, they gave responses which were consistent with the descriptive statistics from the responses of the academic staff.

For instance, one interviewee said; "*It is an annual practice of this university to recognize those who publish in reputable journals with certificates of recognition and some little financial incentives to motivate them to publish further*." Another interviewee revealed; "*To motivate research productivity amongst our lecturers we give them certificates of appreciation. We have also introduced the practice of displaying on the notice boards the lecturer of the month strictly basing on research publications made by an individual*."

However, another interviewee remarked;

This University is young and is struggling to keep the morale of staff high. Research and publication can be promoted by organizing conferences, supporting them to carry out research and holding trainings. However, in this university this is at the lowest level because the university is struggling to establish its existence.

Overall, the views above suggest that universities were making effort to promote intrinsic motivation of the academic staff to enhance their research productivity. This finding supports the descriptive statistics results and the qualitative responses of the academic staff which showed that academic staff productivity was fair.

Results on extrinsic motivation

Extrinsic motivation was conceptualized as the second aspect of motivation factors. Extrinsic motivation was studied using seven items and the results on the same were as presented in (Table 4).

The results in (Table 4) revealed that the overall mean = 2.88 indicting that extrinsic motivation of academic staff was fair because based on the scale used, three represented undecided or average (fair). Factor Analysis revealed that the items on research extrinsic motivation could be reduced three factors. However, the sixth item cross-loaded suggesting that it was complex that is reflecting the influence of more than one factor and thus was dropped from subsequent analysis (Yu and Richardson, 2015). The remaining items had factor loadings of 0.5 and above once on one factor and thus were considered valid. The Cronbach's alpha = 0.70 suggested that the items were reliable. In the responses to the interview question requiring the respondents to give their comment on the extrinsic motivation of academic staff, the interviewees gave views consistent with the descriptive statistics results above.

One interviewee stated;

This university makes effort to support academic staff to increase their research productivity by always reminding them about publishing because in this university publication is the basis for promotion. However, challenges emanate from limited finances to pay very motivating salaries that can afford out staff good lifestyle that make them immersed in research that looking for survival by teaching in different universities and secondary schools.

Another interviewee said;

The major extrinsic motivation challenges to research productivity in this university are the low and untimely paid salaries, and lack of sufficient financial support to research. However, as the university continues to grow, possibly funds will become available and this will enhance academic staff research productivity.

Further, another interviewee remarked;
The university is making effort to provide conditions that can enable lecturers to engage in research productivity. For instance, salaries have gradually been improving, we offer some little cash incentive to every staff that publishes an article in a high impact journal, and promotions are based on publication. Indeed, gradually the frequency of publications by lecturers has been increasing although it is always the same academic staff publishing.

Generally, the views above showed that whereas extrinsic motivation of academic staff for research productivity was low, there was effort by the universities to enhance it. Therefore, as with the descriptive statistics results, was inferred that extrinsic motivation of academic staff in the universities was fair.

Correlation of research productivity on motivation factors

To establish whether motivation factors have a relationship with academic staff research productivity, correlation analysis was done. The two motivation factors were intrinsic and extrinsic motivation. The results were given as in (Table 5).

The results in Table 5 suggest the two motivation factors namely; intrinsic motivation ($r = 0.295$, $p = 0.000 < 0.05$) and extrinsic motivation ($r = 0.162$, $p = 0.019 < 0.05$) had a positive and significant relationship with research

Table 4. Results for extrinsic motivation.

Extrinsic motivation items	Means	Factor Loadings	α
My job in this university helps me to be a winner in life	3.03	0.881	0.70
I am happy with my job because it is part of the way in which I have chosen to live my life	3.16	0.828	
I love my job in this university because of the income it provides me	2.48	0.870	
I chose to work in this university because it helps me attain a certain lifestyle	2.00	0.791	
My job in this university has become a fundamental part of who I am	3.21	0.740	
My job in this university provides me with security	2.99	0.554	
My job in this university gives me career satisfaction	3.31	-0.519	
Overall Mean	2.88		

Table 5. Correlation of academic staff research productivity on motivation factors.

Items	Research productivity	Intrinsic motivation	Extrinsic motivation
Research Productivity	1	0.295**	0.162*
		0.000	0.019
Intrinsic Motivation		1	0.450**
			0.000
Extrinsic Motivation			1

Table 6. Regression of academic staff research productivity on motivational factors.

Motivational Factors	Standardized Coefficients	Significance
	Beta (β)	p
Intrinsic Motivation	0.279	0.000
Extrinsic Motivation	0.037	0.620
Adjusted R^2 = 0.080		
F = 10.032, p = 0.000		

productivity. This means that Hypotheses Six to Seven (H_1-H_2) were supported.

Regression of research productivity on motivation factors

At the confirmatory level, to establish whether motivation factors namely; intrinsic and extrinsic motivation factors were antecedents of research productivity, a regression analysis was carried out. The results were as in (Table 6).

The results in (Table 6) show that motivation factors namely; intrinsic and extrinsic motivation factors were antecedents of research productivity explained 8.0% of the variation in academic achievement of students (adjusted R^2 = 0.080).

This means that 92.0% of the variation was accounted for by other factors not considered under this model. However, only intrinsic (β = 0.279, p = 0.000 < 0.05) was significant antecedent of research productivity while extrinsic motivation (β = 0.037, p = 0.620 < 0.05) was a positive but insignificant antecedent of research productivity.

DISCUSSION

The results revealed that intrinsic motivation was a significant antecedent of academic research productivity. This finding agreed with the findings of previous scholars. For example, Alrahlah, (2016) revealed that intrinsic motivation influenced research productivity because researchers felt that enhancing research productivity would benefit them positively because it would increase their scope of knowledge, which in turn would make them better faculty members. In addition, increased research productivity would also improve their status within the global academic community. In agreement, Chen et al. (2006) found out that that faculty members who assigned higher importance ratings to intrinsic rewards of research exhibited higher research productivity. Also, Horodnic and Zaiţ, (2015) revealed that intrinsic motivation was positively correlated with research productivity. Kurtz et al. (2004) revealed that the intrinsic factor of interest (in a particular topic or in research in general) had the highest influence on publishing.

Ramli and Jusoh, (2015) reported that intrinsic factors namely self-esteem such as peer recognition, earning respect from students, satisfying needs of curiosity and

staying abreast of the current knowledge influenced research productivity. Similarly, Ringelhan et al. (2013) revealed that intrinsic work motivation had a direct influence on research performance. However, the finding of the study disagreed with Abdulsalam and Mawoli, (2012) who reported a negative correlation between motivation including intrinsic motivation and research productivity. Also the finding disagreed with Esponilla II (2015) who revealed that there was no statistically significant linear dependence of the mean of research productivity in terms of research publications, presentations, patents and copyrights on intrinsic motivation factors. Nevertheless, with the finding of the study agreeing with the findings of the majority of previous scholars, this means that intrinsic motivation is a predictor of research productivity of academic staff.

With respect to the finding that extrinsic motivation was an insignificant antecedent of academic staff research productivity, the finding was consistent with Abdulsalam and Mawoli, (2012) who revealed that the correlation between motivation including extrinsic motivation and research productivity was negative.

Also, Esponilla II (2015) revealed that there was no statistically significant linear dependence of the mean of research productivity in terms of research publications, presentations, patents and copyrights on extrinsic motivation factors. Further still, Horodnic and Zaiţ, (2015) revealed that extrinsic motivation was negatively correlated with research productivity of academic staff. However, the finding was inconsistent with Chang and Mills, (2013) who revealed that a monetary reward system provided a way to encourage academic productivity, serving as a mechanism for positive reinforcement. Also, the finding was inconsistent with Chen et al. (2006) who revealed that faculty members who assigned higher importance ratings to both the extrinsic and the intrinsic rewards of research exhibited higher research productivity.

Also, inconsistent with the finding of the study, Chen et al. (2010) reported that the extrinsic rewards of promotion, pay raises, and reduced teaching load were highly valued by faculty at both doctoral granting and non-doctoral granting programs and highly impacted by research output. Kurtz et al. (2004) revealed that the extrinsic pressure of achieving tenure and/ or promotion motivated research publication. Likewise, Ramli and Jusoh, (2015) revealed that extrinsic factors namely promotion, salary, administrative assignment, and teaching load influenced research productivity. Lastly, Ringelhan et al. (2013) also agreed that extrinsic work motivation had a direct influence on research performance. While the finding that extrinsic motivation was not a significant antecedent of research productivity was supported by some previous scholars, majority of previous scholars did not support it. This means that in the context of universities in Uganda, extrinsic motivation had deficiencies.

Conclusion

The discussion above led to the conclusion that the motivation factor of intrinsic motivation is imperative for research productivity. This is so when academic staff obtain the satisfaction experienced from successful performance of difficult tasks, the job giving pleasure to academic staff because it enables them to learn new things and existence and because of formal suggestion system that guides in the making of quality improvement suggestions. It is also because of receiving expressions of appreciation from administrators acknowledging their contribution to quality improvement and because of experiencing interesting work challenges. However, extrinsic motivation has marginal contribution to research productivity of academic staff. This is so when the job provides limited income and does not help academic staff to attain a certain lifestyle. Therefore, it was recommended that management of universities should establish strategies for promoting intrinsic motivation in order to promote research productivity of academic staff. This should involve recognizing academic staff achievements, proving appraisal feedback and providing positively challenging tasks. In addition, there should also be effort to increase extrinsic motivation offers to academic staff. Enhancing extrinsic motivation should involve offering motivating pay that enables academic staff to attain a certain lifestyle, provide promotion opportunities and job security.

Authors' declaration

We declared that this study is an original research by our research team and we agree to publish it in the journal.

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