The Correlation between Age Diversity and Academic Staff Productivity in Private Chartered Universities in Central Uganda

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Abstract

This papers presents part of the study carried out in Central Uganda among the chartered private universities. It investigated, among other things, the correlation between age diversity and academic staff productivity. The study followed a mixed research paradigm, with quantitative and qualitative approaches. The target population in this study was 1109 academic staff from the six (6) chartered private universities in Central, Uganda. The data were analysed using the ANOVA. The finding was that the researcher tested a second null hypothesis that; there is no significant relationship between age diversity and academic staff productivity in private chartered universities in Central Uganda. It was concluded that age diversity is a positive significant determinant of academic staff productivity. Age is a more powerful determinant of teaching productivity as compared to other productivity measures. The influence of age on academic staff productivity is bi-directional. That is, academic staff in their middle adulthood age of 31 – 50 years are likely to be more productive (especially in teaching) than academic staff in their early (starting) years of teaching (30 years and below). On average the productivity of academic staff is likely to start reducing after 50 years. The study recommended that managers of institutions need to always stratify their workforce according to age and give tasks and responsibilities accordingly. Managers should ensure that heavy tasks and those which require much pressure should be given to academic staff in middle age of 31 – 50 years. Managers should also ensure that academic staff in early age of 30 years or below should be assigned under those who are more

Key words: *Gender diversity; Academic staff productivity, Chartered private universities*

Introduction

Workforce diversity is a complex phenomenon to manage in an organization. The management of workforce diversity as a tool to increase organizational productivity cannot be ruled out especially with the current changes sweeping across the globe (Ongorl & Evans, 2007; (Dahlin, Weingart & Hinds, 2018; Asiimwe & Steyn, 2013, Asiimwe & Steyn 2014; Asiimwe & Zuena, 2023). This study focused on workforce diversity which was conceptualised as among other things, age diversity of the academic staff. The National Council for Higher Education asserts that the core functions of a university are research, teaching and community engagement (NCHE, 2020). Based on this, the productivity of the academic staff is paramount. In this study, productivity was conceptualized as teaching productivity, research productivity and community service productivity.

Literature Review

Age diversity is a phenomenon that is present in nearly all groupings, such as families, higher institutions, sports teams and work or team groups with members of varying ages (Kunze, Boehm Bruch, 2013). These authors explained how today's workforce is much more diverse in terms of age, due to differences in generations, where the strengths of each generation are uniquely different and may not necessarily enhance each other (Rowe, 2018), yet both are needed in the organisation. Thus, age diversity benefits both the organization and the staff (Johnson & Johnson, 2018; Zemke, Raines & Filipczak, 2013). Abrams and VonFrank (2018) stated that, as the labour force get older faster than could be replace, the baby boomers are leaving or rather preparing to leave the labour market, there

are not enough generation 'Xers' to fill the gap and the millennials are becoming an ever-large percentage. Accordingly, it is likely that today's organisations employ staff of different generations, whose productivity potentials are significantly different. Scholars such as Abrams and VonFrank (2018) have grouped them into four; Veterans or Traditionalists, born before1943; the Baby Boomers, born between 1943-1960; generation X, born between 1960-1980; and generation Y or the Millennials, bornbetween1980-2018.

Many scholars, theories and biological scientists, almost agree with the argument that age diversity is a significant predictor of staff productivity (Abramo, D'Angelo & Costa, 2018; Odhiambo, Gachoka & Rambo, 2018; Abramo, D'Angelo & Murgia, 2016; Viviania, Bravob, Lavalliere, Arezesd, Martıneze, Dianatf, Bragancag and Castelluccih, 2021). But what is not generally agreed upon is the extent/strength and direction of effect. Some scholars are of the view that young staff (Millennials) are more productive than the veterans, baby boomers and generation X. Due to physical energy differences, it may not be more effective to consider these age groups at once. It is better to compare two groups ate a particular time, so that meaningful analysis can be made. This study assessed the effect of age diversity on staff productivity by age groups one by one, using the OLS method.

There are different explanations on how and why one age group is believed to be more productive than the others in one or more productivity measures. When productivity is assessed generally as one, there are different beliefs as there are different evidences presented. Some scholars argue that age diversity is a significant predictor, while others do not belief so. Empirical findings have also not pointed in one direction. Some findings show that age is a significant predictor (e.g., Abramo *et al*., 2018; Odhiambo *et al*., 2018; Abramo *et al*., 2016), while others revealed that it is an insignificant predictor (Elsaid, 2012; Gikonyo, 2017). Even findings which support age as a significant predictor of productivity have differed, with some revealing that older staff perform better and so are more productive than young ones, while others reveal that young staff are more productive. In each case, researchers have tried to give reasons why one age group is more productive than the other. For example, Josef (2018) believes that older academic staff are less productive because, they have an attitude that resists change. Joseph further explains that due to their advancement in age, many have reduced memories and as such, are more likely to be absent from work due to ill health, which partly results from their reduced energy and enthusiasm unlike the younger academic staff. Thus, they are unwilling to be trained on how to use new technologies, new processes or new skills. The resulting effect of these are the main causes for their decline in work productivity.

There are also studies with evidences showing three ways in which age affects productivity, where the young staff at the career beginning and older staff at the upper end of the career (the veterans) being less productive than their counterparts in the middle age (Aksnes, Rørstad, Sivertsen & Piro, 2010; Aksnes, Rorstad, Piro & Sivertsen, 2012; (Dahlin, Weingart & Hinds, 2018; Asiimwe & Steyn, 2013, Asiimwe & Steyn 2014; Asiimwe & Zuena, 2023). For example, the study by Aksnes *et al.* (2012) revealed that the "youngest and oldest researchers are far less productive in research outputs, measured in terms of number of publications and citations. Their findings further showed that productivity increases as age increase, it reaches a peak, as a person approaches the late age in career and thereafter starts to decline. Their study showed that the staff above 60 years are significantly less productive in research, in terms of number of publications and citations than young staff.

The findings from Aksnes *et al.* (2012) agree with those of Gelner (2009), who indicated that age diversity may adversely influence the efficiency of workers due to differences in beliefs, values and preferences of the different age groups. Gelner showed that, generations gaps are a source of low productivity, clashes and conflicts. This is because, each generation believes that its strengths are matchless and therefore no need to worry about disparities coming forward due to generation gap. This view is also supported by Rowe (2010). In another study conducted by Ahmad and Rahman (2019) on the effect of age diversity on employee's performance, it was revealed that age diversity has a negative relationship with performance of staff. The findings that age adversely affects staff productivity need to be critically assessed, in order to understand how or which age group actually reduce staff productivity. But according to the findings of Gelner (2009), Rowe, (2010) and Aksnes *et al.* (2012), a reduction in productivity due to age comes in as a person reaches the upper end of their academic career. This implies a negative relationship between older age of 60 and above and productivity.

However, there are currently no evidences and explanations on the negative relationship between the lower age group and productivity. What most scholars show is a positive insignificant relationship between the lower age and research productivity. This is in line with the findings of Jayawardana and Priyashantha (2019), who found out that

age diversity has a positive impact on employee's productivity. This can be true in academic institutions because, it is usually a common practice that senior academic staff mentor young academic staff on how to perform their work effectively. A recent study by Farooq (2017), provided explanations as to how age diversity in general impacts positively on staff productivity. He showed that a workforce composed of different age demographics creates an environment where each generation brings different skills and talents on table. Farooq elaborated that young employees are more likely to have a strong grasp on the use of high-tech mediums such as networking, webcasting and others, and that more mature professionals often have exceptional interpersonal skills and perform well in environments where traditional person communications are used.

This diverse range of skill sets can offer an advantage to a company that caters to a multi-generational demographics. Meanwhile according to Stephen *et.al*. (2018), that aging had direct implications for productivity. Different age cohorts differed in their productivity than changes in age distributions of the workforce would affect the average output per worker. According to their findings, workers' productivity systematically varied over their working life, for reasons such as the accumulation of experience overtime, appreciation and depreciation of knowledge due to age-related trends in physical and mental capabilities. A more mature labour force would have higher average levels of work experience, with potentially positive effects on productivity.

Problem Statement

The mushrooming of private universities has led to among other things, challenges in the productivity of academic staff. Whereas some dons in some private universities are good performers, others are mediocre and that mediocrity is usually seen in pragiarising others' works and then publish them, incompetence in teaching as some of them teach things they are not qualified in. it is not for example un-common to find a lecturer teaching History yet he/she last studied that History in S.6 (Kayindu, Ganatusanga and Kiggundu, 2023; (Dahlin, Weingart & Hinds, 2018; Asiimwe & Steyn, 2013, Asiimwe & Steyn 2014; Asiimwe & Zuena, 2023)..(Dahlin, Weingart & Hinds, 2018; Asiimwe & Steyn, 2013, Asiimwe & Steyn 2014; Asiimwe & Zuena, 2023). Whereas this can be explained by several factors, and whereas many of these factors have been studied by previous researchers, academic staff age factor seems to have been ignored, especially at the university level, hence the current study.

Methodology

A research design is a scheme, outline or plan that is followed to generate answers to research problems (Orodho, 2003). The qualitative approach helped the researcher collect the lived experiences of the respondents and develop in depth explanations of the research problem to augment the quantitative findings. For this study a cross-sectional survey design using qualitative and quantitative approaches was used. Using a cross-sectional survey design, the study was carried out in six private universities in Central Uganda which are chartered. A sample of 385 academic staff was selected to fill the questionnaires. In addition, 12 dons were subjected to oral interviews. The response rate of the questionnaires was 93%. The ANOVA was used to analyse the data.

Findings of the study

The researcher tested a second null hypothesis that; there is no significant relationship between age diversity and academic staff productivity in private chartered universities in Central Uganda. To test this null hypothesis, One-way Analysis of Variance (ANOVA) was used. The three numerical indices of productivity (teaching, research and community service) and their overall productivity index were correlated with respondents' age and the results are presented in Table 1.

Table 1: ANOVA Results for Variations in Staff Productivity by Age

Productivity	Age groups	N	Mean	Std. Deviation	F-value	p-value	Decision
Teaching Productivity	20 - 30 years old	101	3.29	0.57	2.899	.035	Positive Insignificant
	31 - 40 years old	111	3.43	0.45			
	41 - 50 years old	117	3.47	0.35			
	51 - Years &above	21	3.34	0.50			
	Total	350	3.40	0.47			
Research Productivity	20 - 30 years old	100	2.89	0.72	.589	.623	Positive Insignificant
	31 - 40 years old	108	2.84	0.61			
	41 - 50 years old	117	2.81	0.52			

	51 - Years &above	21	2.71	0.72			
	Total	346	2.84	0.62			
Community Service Productivity	20 - 30 years old	101	2.93	0.69	1.107	.346	Positive Insignificant
	31 - 40 years old	111	2.87	0.61			
	41 - 50 years old	117	2.95	0.52			
	51 - Years &above	21	2.70	0.68			
	Total	350	2.90	0.61			
Overall productivity	20 - 30 years old	101	3.04	0.55	.800	.495	Positive Insignificant
	31 - 40 years old	111	3.05	0.44			
	41 - 50 years old	117	3.08	0.32			
	51 - Years &above	21	2.92	0.53			
	Total	350	3.05	0.45			

Source: Primary data, 2023.

The findings in Table 1 reveal that, age diversity only has significant impact on teaching productivity of academic staff (F = 2.899; p = 0.032). Results further show that age diversity has no big connection with research and community service productivity, since the corresponding p-values are far bigger than the 0.05 level of significance. Based on these results, the null hypothesis is accepted that age diversity has no significant link with academic staff productivity as a whole.

The results differed a bit from the observations of the oral informants. One informant for example said, "*Young dons who have not yet clocked 35 years tend to be more productive in all university work activities since they are energetic and want promotion. Since they want to be seen as hard working people, they will do whatever it takes to be very productive*" The informant did not however say what being productive meant, as if he took it to mean producing or doing tasks no matter the quality.

Discussion

This study found out that age diversity has a significant effect on only teaching productivity (F = 2.899; p = 0.035). Younger academic staff was found to be more productive in teaching (between 31 – 50 years) than older academic staff (between 51 years and above). However, age diversity had no significant effect on the overall/aggregated productivity index (F = 0.800; p = 0.495). The results suggest that, age diversity does not significantly affect research and community service productivity of academic staff, but it does so for teaching productivity. The findings also showed that in general, academic staff in their middle age (31 – 50 years) is more productive compared to those below 30 years and those above 50 years.

This finding does not contradict (is consistent) with logic because, staff in the 31 – 50 years are relatively young but not so young. They have acquired an adequate level of experience and have not grown so old. So, they have less fatigue and are healthier. They are in the middle of their time, which is the best age which is also more productive in almost all areas of productivity. On the other hand, people above 50 years have grown, are tired, less healthy and so are at a declining age of their career. So, their productivity is declining and are thus likely to be less productive compared to those below 50 years. That is why even employers do not prefer to employ people above 50years. Also, young people below 30 years, though they are more energetic, they have less experience, are still learning, have less focus and so on. So, it is very possible for them to be less productive even when they put in more energy.

Several researchers (e.g. Abramo, D'Angelo & Costa, 2018; Odhiambo, Gachoka & Rambo, 2018; Abramo, D'Angelo & Murgia, 2016) have produced similar results, leading to conclusion that age has a significant effect on staff productivity, especially on some productivity variables like research. There seems to be more research on how age affects research productivity than on other productivity variables such as teaching and community service. The differences in research coverage are not yet explained. Similar to the findings of this study are those from Viviania, Bravob, Lavalliere, Arezesd, Martıneze, Dianatf, Bragancag and Castelluccih (2021), who revealed that younger staff perform better than older ones. They however reported that there are performance aspects where older staff performs better than the young ones. They for example reported low absenteeism among older staff than young staff. But in terms of research productivity, the young staff was better.

A critical analysis of the different findings from this study and the previous ones reveals several areas of focus; One is that the productivity of beginning academic staff especially on research, is significantly lower than that for staff in

middle age of 31 – 50 years; second, middle aged staff productivity is significantly higher than the older ones of above 50 years; third, differences due to age are significant mainly in research and disappear when it comes to teaching and community service; four, in most of the previous findings, age has a negative coefficient (Abramo *et al*, 2018) implying that young staff exceed older ones in general productivity and in some specific areas of productivity, or that young or middle aged staff are more productive than those in the late adulthood age bracket (above 50years). All these needs researched explanations, which this study did not provide and also not yet present in previous research reports.

Conclusion and recommendation

In general, age diversity is a positive significant determinant of academic staff productivity. Age is a more powerful determinant of teaching productivity as compared to other productivity measures. The influence of age on academic staff productivity is bi-directional. That is, academic staff in their middle adulthood age of 31 – 50 years are likely to be more productive (especially in teaching) than academic staff in their early (starting) years of teaching (30 years and below). On average the productivity of academic staff is likely to start reducing after 50 years. So, at 51 years and above, age becomes a significant but negative determinant of academic staff productivity. Thus, the experience which is built between 31 – 50 years begins to reduce after that age level. What exactly happens after this age level was not determined in this study.

The researcher assumes that after the 50 years, other factors like reduced energy/fatigue, health problems, being too much busy with a lot of commitments elsewhere, reduce the productivity of staff in their late age. These propositions require further investigations to be confirmed. Therefore, managers of institutions need to always stratify their workforce according to age and give tasks and responsibilities accordingly. Managers should ensure that heavy tasks and those which require much pressure should be given to academic staff in middle age of 31 – 50 years. Managers should also ensure that academic staff in early age of 30 years or below should be assigned under those who are more experienced. For example, those above 50 years have reduced energy of doing work, so they should be assigned to mentor the young ones who are 30 years or below. Academic staff in middle age (31 – 50 years) should be facilitated and motivated to do most of the university tasks. If this is done, the productivity of academic staff in universities is likely to increase significantly.

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