



THE EFFECTS OF PERFORMANCE MANAGEMENT PRACTICES ON UNIVERSITY PERFORMANCE ACHIEVEMENTS IN SOME SELECTED ETHIOPIAN PUBLIC AND PRIVATE UNIVERSITIES

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Abstract

Performance management enables the universities to improve their overall performances. The study aimed to investigate the effects of performance management dimensions and their effectiveness on universities' performance achievements. The study used a mixed research approach, descriptive, explanatory and comparative research designs. Data were collected via questionnaire and semi-structured interview. The questionnaire respondents were 226 academic staffs from three public universities and 81 academic staffs from two private universities. Interviewees were ten department heads and six research and publication coordinators and two community service directors. Quantitative data were analyzed using correlation and hierarchical multiple regression. The finding showed that performance management dimensions had positive association with universities' performance achievements. The finding indicated the R^2 value both universities was 0.594 (59.4%), $P < 0.00 = 0.005$. The finding also indicated the comparison for model summary of performance management dimensions and their effects on the performance achievements of public and private universities. The value of R^2 for public universities was 0.722; however, the R^2 value for private universities was 0.399. The study concluded that universities were achieved their performance directly from the practices of performance management dimensions.

Keywords: Performance management, Performance management dimensions, university performance achievement, Public University, Private University

INTRODUCTION

Background of the Study

The successful implementation and use of performance management systems (PMS) have become the top importance to public sector organizations for the last two decades. Scholars (De Waal, 2013; Armstrong, 2009; Pulakoes, 2004; Ramataboe, 2015; Goel, 2008; Laura, 2016) described the concepts and purposes of performance management (PM). They explained that PM should be the continuing process, holistic and aligned with strategic goals for both private and public organizations.

Some of the writers (Aguinis, 2009; De Waal & Kourtit, 2013 and Sisa, 2014) also described the purposes of PM. They stated that PM aims to foster organizational efficiency and effectiveness in the workplace by maximizing and maintaining individual, team, organization, and government outcomes. Scholars (Carmine and Rivenbark, 2012; Jain, 2017 and Sameeksha, 2017) described the similarity and differences of PM practices in public and private organizations. They remarked that the performance of the private sector is reflected in the

quality of its product, customer satisfaction, and ultimately to their profits whereas the performance of a public organization can be seen in its capacity of providing services and running projects with limited resources.

Public sectors such as universities have been implementing their strategic goals based on PMS to improve their academic performances such as quality education, research outputs, and community services (Allison, 2009). However, the adoption of PMS has resulted in chaotic situations in many public organizations around the world because these organizations were incapable of addressing some changes that have occurred in the workplace (Kaplan & Norton, 2002).

Thus, this study examined the practices of PM dimensions and their effects on university performance achievements (education program, research output, and community service).

Statement of the Problem

Even though reform has been conducted in Ethiopian higher education institutes (HEIs), some challenges face higher education institutes. Road map of Ethiopian education and training policy (2018) reported that during the past one and half decades, it was observed a significant expansion of the Ethiopian HEIs. However, these activities have a little positive impact on the quality of HEIs' core processes such as teaching and learning and research outputs. The first growth and transformational plan (GTP) performance evaluation of Ethiopia indicated that efficiency and quality of education at all levels were still a critical problem (Mulatu, 2016).

Though there have been some studies in Ethiopia concerning PM by (Mulatu, 2016; Abebe, 2017; Alela, 2016; Wondwossen, 2017; Mulu, 2008; Yonas, 2018), the studies were not comprehensive and consolidated; rather, they were narrowly focused. Furthermore, these empirical studies have limited scope because they were conducted in a single sector. Hence, these studies might make it difficult to generalize to the Ethiopian public and private sectors, particularly to the public and private universities context.

Moreover, this study responded to previous calls on the research recommendations (Jain & Gautam, 2016; Wondwossen, 2017). Jain and Gautam (2016) recommend the future research be conducted on the how and to what extent performance planning, performance review, feedback; rewards and recognition, and performance improvement differ in public and private sector enterprises. Thus, universities should make clear statements about the levels of service (education, research, and community service) they intend to give.

Therefore, the research examined the practices of PM dimensions and their effects on the UPA and it also compared the practices of PM dimensions and their effects on UPA on the

selected Ethiopian public and private universities. Based on the information in the prior section, this research attempted to address the following basic research questions

1. To what extent do the practices of PM dimensions affect the organizational performance achievements of the selected Ethiopian public and private universities?
2. Are there any similarities in the practices of PM dimensions and their effects on organizational performance achievements between the selected Ethiopian public and private universities?

LITERATURE REVIEWS

Definitions and Concepts of Performance Management

To have a clear understanding of PM and PM dimensions (performance planning, Performance implementation, performance evaluation, and feedback and rewarding), the concept of what performance means should be clear. Many writers define the term performance in their ways (Armstrong, 2009; Vroom, 1964 and Ameen & Ahmad, 2014). Armstrong (2009) defined performance as the record of outcomes achieved. Performance is the achievement of the goal through the input process into the output (Aldholay, Abdullah, Ramayah, Isaac, & Mutahar, 2018; Korir, Rotich & Bengat, 2015). Vroom (1964) suggested that performance is a function of ability and motivation as depicted in the formula: Performance = f (ability \times motivation). People need both ability and motivation to perform well. Accordingly, this definition could be applied in the academic employees' performance especially at the university level. Academic staffs have a strong ability to accomplish academic tasks like teaching, research, and community service; however, they may need strong motivation to apply their ability and perform the best.

PM can be defined as a systematic process for improving organizational performance by developing the performance of individuals, teams, and organizations (Armstrong, 2009; Aguinis, 2009). On a different note, Roberts (2001) stated that PM involves the setting of the corporate, individual, team, and organizational objectives. On the other note, Sayantani (2015) stated that PM is a means of getting better results from the organization, teams, and individuals by understanding and managing performance within an agreed framework of strategic goals.

Generally, based on the above concepts and writers' views, it could be possible to conclude that PM is a continuous process and practice that improves individuals, teams, and organizational performance. It should be shared and aligned with a strategic goal.

Theories of Performance Management

Buchner (2007) listed theories that have related to performance management in recent years. They were Equity Theory, Expectancy Theory, Cognitive Evaluation Theory, Goal-Setting Theory, Control Theory, System Theory, Motivation Theory of X and Theory of Y, and Social Cognitive Theory. Based on these contexts, the researcher selected three theories to use as the foundation of a theoretical framework for this study.

Goal-Setting Theory, goals are central to even the most basic performance management systems and get the organizational achievement (Locke & Latham, 1990). Five basic principles allow goal setting to perform better. These include clarity, challenge, commitment, feedback, and task complexity (Locke & Latham, 1990, 2002; Latham & Locke, 2007). As they worked to understand the core properties of effective goals, goal difficulty and goal specificity stood out as having the strongest effect on performance. In particular, difficult and specific goals led to higher performance when compared to vague and unclear goals (Locke and Latham, 2002).

Control Theory, because feedback is also a central issue to the essence of performance management and for the growing interest in organizational performance (Carver & Scheier, 2002). Armstrong (2009) explained that control theory focuses attention on feedback as a means of shaping behavior. As people receive feedback on their behavior, they appreciate the discrepancy between what they are doing and what they are expected to do and take corrective action to overcome it. Feedback is recognized as a crucial part of performance management processes (Aguinis, 2009 & Armstrong, 2009). Control theory helps in performance management by evaluating the output and its consistency with pre-defined sets of parameters (Barrows & Neely, 2012).

Expectancy theory (Vroom, 1964) because individual behavior aligned with the organizational expectation and can be applied to all types of organization. As Vroom is cited Armstrong (2009) the expectancy theory performance is a function of ability and motivation as depicted in the formula: $Performance = f (Ability \times Motivation)$. Expectancy Theory claims that people will be motivated to exert effort on the job when they believe that doing so will help them achieve the things they want (Vroom, 1964). The performance of an individual should always be aligned with organizational expectations regarding the achievement of identified goals in the future (Salaman et al. 2005). Accordingly, this definition could be applied in the academic employees' performance especially at the university level. Academic staffs have a strong ability to accomplish academic tasks like teaching, research, and community service; however, they may need strong motivation to apply their ability and perform the best.

The above theories of PM such as Goal setting, Expectancy, and Control theories support the concept of the performance management system. These theories can be related to the practices of PM dimensions and organizational performance achievements. Generally, these performance management theories (Goal Setting, Expectancy, and Control Theories) are applicable in HEIs.

Performance Management Dimensions

The performance management process is built on the assumption that defining performance planning, performance implementation, performance measurement, evaluation and reward work agenda contributes to organisational success (Aguinis, 2009). This research aims to examine the PM dimensions practices in Ethiopian HEIs as an integrated system, which comprises of five main PM ongoing processes: pre-requisite for performance management, performance planning, performance implementation, performance evaluation, and performance appraisal.

The performance pre-requisite is the primary stage of the performance management system (Aguinis, 2009). There are two important requirements that are needed before a performance management system is implemented. These are: knowledge of the organization's mission and strategic goals, and knowledge of the job in question (Armstrong, 2009). Performance planning (PP) is the second most important step in the PM dimensions. Planning provides a framework within which an organization identifies its vision, where it wants to go, and how to achieve that vision (Gilley and Gilley, 2003; Lawton and Rose, 1994). The performance management process starts with performance planning and is the basis for an effective process. PP refers to the setting of performance expectations and goals for individuals and groups to channel their efforts towards organizational objectives (Noella et al., 2000). Performance implementation (PIM) is one of the critical parts of PM dimensions or components. Organizations could achieve their mission if there were clear PIM directions and strategies. Managing for performance is a process of developing programs, budgets, and procedures to implement organizational strategies and policies (Wheelen & Hunger, 2011). This is the process of directing, influencing, and motivating employees to perform essential tasks. Performance evaluation and review (PER) is one of the dimensions of PM that has been most often practiced in any organization. PER is the process in which activities and performance are monitored so that actual performance can be evaluated against what is desired (Armstrong, 2006). The performance is evaluated based on the standard that has been set and finds out the actual result and the gap (Cascio, 2000; De Waal, 2001 & Armstrong, 2006). Performance Appraisal (PA) is a major component of PM dimensions. PA is a systematic appraisal and ranking of

people by their supervisors at an annual review meeting, typically by clients or colleagues (Armstrong, 2006). The PA was discredited because it was mostly used as a top-down and often bureaucratic structure (Armstrong, 2009; Cokins, 2009; De Waal & Kourtit, 2013). The literature clearly demonstrates the benefits of PA.

Concept of Organizational Performance

Organizational performance is the quality of service, efficiency, effectiveness and productivity that an organization can achieve over a certain period (Scott & Davis, 2007). Organizational efficiency requires converting inputs into outputs. Performance informs the relationship between minimum and effective cost (economy), between effective cost and realized production (efficiency) and between output and the outcome or efficiency achieved with regard to its content (Rini, Chandrarin & Assih, 2019). Other scholars described organizational performance from the perspective of measurement. According to Radebe (2013), organizational efficiency is described as the indicator of when and how an organisation sets its own goals.

According to this research, organizational performance in universities implies the performance achievement of universities in the education program, research outputs and delivery of community service. The achievement of university success implies the quality, reliability and efficiency of universities for this study.

Conceptual Framework of the study

The conceptual framework (Figure 2.1) is developed from the literature to identify the important elements that indicate the practices of PM dimensions and their influence on university performance achievements directly. It is used as a guide throughout this study and to develop the research design.

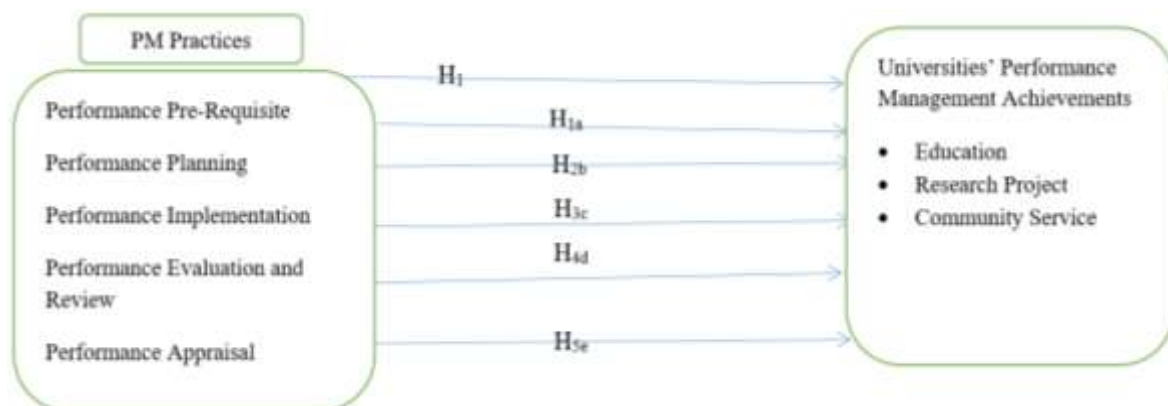


Figure 1. Conceptual Framework

Source: Adopted from (Jain, 2017; Singh, 2013; Armstrong, 2006; Pulokas, 2009)

RESEARCH METHODOLOGY

Research Design

This study mainly focused on the analyses of the practices of PM dimensions and their effect on university performance achievement (UPA) on the selected public and private universities. There would be also a comparison for the practices of PM dimensions and their effects on UPA in some selected public and private universities. The researchers used quantitative research approach and the descriptive survey, explanatory and comparative research design.

Research Variables and Model Specification

In this study, the independent variables were found in the performance management dimensions. They were categorized as: performance Pre-requisites (PPR), performance planning (PP), performance implementation (PIM), Performance evaluation and review (PER) and performance appraisal (PA). The dependent variable was the universities' performance achievements (education program outputs, research output and community service).

The coefficient question or model specification that the researcher formulated for this study was presented as follows.

$$UPA = \beta_0 + \beta_1 (PPR) + \beta_2 (PP) + \beta_3 (PIM) + \beta_4 (PER) + \beta_4 (PAR) + e \dots \text{Model (1)}$$

Where,

$\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$ and β_4 are the regression co-efficient

UPA: Universities' performance achievements

PPR: Performance Prerequisite,

PP: Performance Planning,

PIM: Performance Implementation,

PER: Performance Evaluation and Review,

PA: Performance Appraisal and e: error term.

Sampling Techniques

The target population consists of all the academic staff such as professors (lecturers, assistant professors, associate professors, and professors) from three public and two private universities who have gotten accreditation from HERQA in 2018. Probability sampling was employed to collect data from the academic staff using stratified and simple random sampling procedures to obtain the respondents for questionnaires. Systematic random sampling has been used while selecting public and two private universities. Stratifying sampling was used to select colleges and departments. Participants were chosen from among academic staff,

researchers, and department heads using simple random sampling techniques and the lottery method. The researcher also employed purposive sampling techniques to collect data through semi-structured interview questions. In this case, the researcher selected the respondents purposely from universities' academic management such as department heads and (research and coordination office and community service) since the data obtained from interview is believed to secure more reliable and valid data.

The researchers used Yamane's (1967) formula to determine the sample size because the behaviors of the participants (academic staff) have a homogenous nature. The respondents from the public universities were 226 and from private universities were 81. The total number of respondents was 307 (see Annex one).

Data Collection

The questionnaires were employed so as to obtain quantitative data from the academic staffs. The research questionnaire for MP dimensions were formulated around the general performance management processes or stages proposed by (Jain, 2017; Singh, 2013, Armstrong, 2006; Pulokas, 2009). The second part of the questionnaire was organizational performance which means university performance achievements. The questionnaire was prepared from the review literature and it was adopted from Wang (2010). Particular attention was also paid to the selection of scales for this questionnaire. Kinnear and Taylor (1998) suggested that attitudes and perceptions are typically measured at the interval or ordinal level. For the purposes of this study, interval scales were used: a seven-point scale was used for the practices of PM dimensions and universities performance achievements. Joshi, et.al (2015) argued that considering reliability of the responses from participants, the 7 point scale may perform better compared to 5 point scale owing to the choice of items on scale.

Data Analysis Techniques

The researcher used inferential statistics (Pearson correlation and Hierarchical Multiple regressions Analysis) to analysis the quantitative data using SPSS. Pallant (2013) stated that before the analysis of the data, different assumptions of the statistical techniques should be employed to examine multiple regression analysis before making the multiple regression analysis. Therefore, assumptions such as sample size, multicollinearity, linearity, normality and homoscedasticity were checked.

RESULTS AND DISCUSSIONS

This section has three major parts. The first part presented the respondents' rate, reliability and validity test. The second part presented data and examined based on the research objective 'the effects of PM dimensions on UPA' and lastly there would be comparison of the effects of PM dimensions on UPA between public and private universities.

Validity and Reliability Test

To enhance the quality of this research, both validity and reliability test were checked. Validity test was checked from consulting professors and scholars who have good knowledge the content area and experience in PM and university performances. Reliability was checked the results were presented in the Table 1.

Table 1. Reliability Test Result

No	Name of the Processing Item	No of Items	Cronbach's Coefficient for each item	Cronbach's Coefficient for the group items
1	PM Practices	40		
1.1.	Performance Pre-requisite (PPR)	5	.889	
1.2.	Performance Planning(PP)	7	.901	
1.3.	Performance implementation (PIM)	10	.904	0.889
1.4.	Performance Evaluation and Review (PER)	8	.919	
1.5.	Performance Appraisal	10	.846	
2	University Performance Achievement (UPA)	14		
2.1	Education program	3	.734	
2.2.	Research output	5	.918	0.852
2.3.	Community Service	6	.905	

Table 1 depicted that the values of Cronach's Alpha for each part of the questionnaire and the entire questionnaire. As it can be seen from the Table, for each items' value of Cronbach's Alpha was in the range between 0.734 - 0.919. This range was considered as high; the result ensured the reliability of each field part of the questionnaire. The average Cronbach's

Alpha equals 0.915 for the entire questionnaire which indicates very good reliability. These Cronbach's Alpha results were supported from scholars. Sekaran (2003) said that a Cronbach's value ranging from 0.70 and above was considered appropriate for measuring reliability.

Checking Assumptions for Multiple Regression Analysis

Before the researchers went to make the multiple regression analysis, there were assumptions that needed to be checked. Researchers should check for points such as sample size, multicollinearity, linearity, normality, and homoscedasticity (Pallant, 2013). Thus, the researcher checked assumptions such as multicollinearity, linearity and normality to make the multiple regression analysis for this research.

To detect multicollinearity, there are two common methods, such as inspecting the bivariate and multivariate correlation matrix and calculating the variance inflation factors (VIF) and tolerance impact (Tabachnick and Fidell, 2007; Field, 2009; Pallant, 2010). Based on this assumption, the researchers checked the multicollinearity using tolerance and the variance inflation factors (VIF) results. Although there are no hard and fast rules about what value of the VIF should cause concern, Myers (1990) suggests that a value of 10 is a good value and if the average VIF is greater than one. Pallant (2013) stated that tolerance is an indicator of how much of the variability of the specified independent was not explained by the other independent variables. If this value was very small (less than .10), it would indicate that the multiple correlations with other variables were high, suggesting the possibility of multicollinearity. Table, 2 shows the results of tolerance and VIF.

Table 2. Pearson Coefficients for PM practices and their effect on UPA

Model	Collinearity Statistics		Sig.	
	Tolerance	VIF		
1	(Constant)		.004	
	PPR	.805	1.242	.162
	PP	.420	2.383	.000
	PIM	.352	2.844	.000
	PER	.338	2.960	.045
	PA	.340	2.938	.001

Normality can examine to some extent by attaining skewness and kurtosis values. Skewness and kurtosis values are also provided as part of the output of the research, giving information about the distribution of scores for the two groups (Pallant, 2013). The presence of

normality data was checked using histogram (see annex two) and the result shows that data was normally distributed for the practices of PM dimensions and their effects on UPAs.

The third assumption was about the presence of linearity and scatter plot. The output result for linearity (see annex three) showed the positive relation of the PM practices and organizational performance achievement and the scatter plot started from the left bottom and rose to the right top. Thus, this indicates the strength of the relationship between two variables such as the practices of PM dimensions and their effects UPA in public and private universities.

Multiple Regression Analysis for PM Dimensions and their Effects on UPA

The study responded for research question “to what extent do the practices of PM dimensions affect the universities’ performance achievements (education, research and community service) in the selected public and private universities in Ethiopia. To examine this objective, hierarchical multiple regression analysis was employed to test the joint as well as the individual effects of PM practices on UPAs. This section has two major parts such as hierarchical multiple regression analysis and the comparison of such analysis in the selected public and private universities. Besides, 95% confidence level was used for statistical test results in the regression analysis. The following hypotheses were analyzed for the research question.

H₁. The practices of PM dimensions have significant and positive effects on university performance achievements in the selected Ethiopian public and private universities.

H_{1a}. The Performance pre-requisite practice has significant and positive effect on university performance achievements in the selected Ethiopian public and private universities.

H_{1b}. The Performance planning practice has significant and positive effect on university performance achievements in the selected Ethiopian public and private universities.

H_{1c}. The Performance implementation practice has significant and positive effect on university performance achievements in the selected Ethiopian public and private universities.

H_{1d}. The Performance evaluation and review practice has significant and positive effect on university performance achievements in the selected Ethiopian public and private universities.

H_{1e}. The Performance appraisal practice has significant and positive effect on university performance achievements in the selected Ethiopian public and private universities.

The model summary in Table 3 presented the results of hierarchical multiple regression analysis that revealed the effect of PM practices (PPR, PP, PIM, PER and PA) on UPAs in the selected public and private universities. Hierarchical multiple regression analysis was performed to examine the effects of each PM dimension (PPR, PP, PIM, PER and PA) on UPA. Table 4 showed the R and R- square value of effect PM dimension on UPA.

Table 3. Model Summary for PM Practices
and its Effect on UPA

Model	R	Change Statistics					Sig. F Change
		R - Square	R- Square Change	F Change	df1	df2	
1	.222 ^a	.049	.049	15.82	1	305	.000
2	.627 ^b	.393	.344	172.11	1	304	.000
3	.728 ^c	.530	.137	88.08	1	303	.000
4	.764 ^d	.583	.054	38.92	1	302	.000
5	.771 ^e	.594	.011	8.14	1	301	.005

a. Predictors: (Constant), PPR

b. Predictors: (Constant), PPR, PP

c. Predictors: (Constant), PPR, PP, PIM

d. Predictors: (Constant), PPR, PP, PIM, PER

e. Predictors: (Constant), PPR, PP, PIM, PER, PA

f. Dependent variable: UPA

Table 3 showed the hierarchical regression model summary for PM practices and their effects on UPA. The R- square change value indicated the contribution of each PM dimension for UPAs and the results for model one were 0.049, model two was 0.344, model three was 0.137, model four was 0.054 and model five was 0.011.

The result of multiple regression analysis (see Table 3) indicated that the coefficient of correlation between PPR and its effect was found to be ($R = .222$) and this showed that the positive relationship between the two variables was maintained. Besides, the R square value (R^2) for PPR practices and its effect was found to be ($R^2 = 0.049$) and this indicated 4.9% of the observed variables in UPAs in the selected universities. This means the remaining 95.1% of the values in UPAs could be other factors which were not depicted in this study.

Model two PP, the R square value (R^2) was found to 0.393(39.3%), $P < 0.001 = .000$ together with the PPR contribution for UPA. Model three PIM, the R^2 value) found to be 0.530(53%), $P < 0.001 = .000$ together with PPR and PP contribution for UPA. Model four, the R^2 value) was 0.583 (58.3%), $P < 0.001 = .000$ together with PPR, PP and PIM contributions for UPA. The effect of PM practices (PPR, PP, PIM, PER and PA) jointly on UPA was 0.594 (59.4%), $P < 0.00 = 0.005$. This indicated that PM practices had 59.4% contribution to education, research, and community service performance achievements, and the remaining 40.6% could be due to other factors.

Table 4. Coefficients Analysis for PM Dimensions and their Effects on UPA

		Coefficients				
		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	T	Sig.
	(Constant)	.604	.278		2.175	.030
1	PPR	.004	.050	.003	.082	.935
2	PP	.227	.050	.232	4.581	.000
3	PIM	.297	.058	.276	5.135	.000
4	PER	.164	.047	.214	3.470	.001
5	PA	.154	.054	.181	2.854	.005

a. Dependent Variable: UPA

The multiple regression questions was put as follows which was derived from the table 4. The researcher considered the following model specifications, by taking the organizational performance or UPA as dependent variable and making the practices of PM dimensions as independent variables by taking from Unstandardized Coefficients *B* values.

$$UPA = \beta_0 + \beta_1 (PPR) + \beta_2 (PP) + \beta_3 (PIM) + \beta_4 (PER) + \beta_4 (PAR) + e \dots \text{Model (1)}$$

Where β_0 , β_1 , β_2 , β_3 , β_4 and β_4 are the regression co-efficient

Based on this formula, UPA coefficient question was presented as follows.

$$UPA = 0.624 + 0.004PPR + 0.227PP + 0.297PIM + 0.164PER + 0.154PAR + .278$$

Dependent variable: UPAs,

Predictive variables are PPR, PP, PIM, PER, PA and e: error term.

Table 4 also presented the results of the regression standardized coefficients, *Beta* (β) values of the predictor variables. According to the results of the regression analysis, the standardized coefficient value for PPR practice was ($\beta = .003$ and the $P = 0.935 > 0.05$), indicating that PPR was not statistically significant in predicting UPA. The standardized coefficient value for performance planning practice was ($\beta = 0.232$, and the $P = 0.000 < 0.05$). This indicated that PPR was statistically significant in predicting UPA. In other words, performance planning has a direct effect on UPAs in the selected Ethiopian public and private

universities. The *Beta*(β) weight of PP ($\beta=0.232$) indicated that a unit increase in performance planning practice led to an increase in universities' performance achievement by 23.3%.

Table 4 indicated that the standardized coefficient value for performance implementation practice was ($\beta= 0.276$ and the $P = 0.000 < 0.05$ value. This indicated that PIM was statistically significant in predicting UPA. In other words, performance implementation has a direct effect on UPAs in the selected Ethiopian public and private universities. The *Beta*(β) weight of PIM ($\beta=0.276$) indicated that a unit increase in performance implementation practice led to an increase in universities' performance achievement by 27.6%.

The standardized coefficient value for performance evaluation and review practice was 0.214 and the $P = 0.000 < 0.05$ value (see Table 4). This indicated that PER was statistically significant in predicting UPA. In other words, performance evaluation and review have a direct effect on UPAs in the selected Ethiopian public and private universities. The *Beta*(β) weight of PER ($\beta=0.214$) indicated that a unit increase in performance evaluation and review practice led to an increase in universities' performance achievement by 21.4%.

The standardized coefficient value for performance appraisal practice was $\beta= 0.181$, with a P value of $0.000 < 0.05$ (see Table 4). This indicated that PA was statistically significant in predicting UPA. Performance appraisal has a direct effect on UPAs in the selected Ethiopian public and private universities. The *Beta* (β) weight of PP ($\beta=0.181$) indicated that a unit increase in performance implementation practice led to an increase in universities' performance achievement by 18.1%.

Table 5. Summary of the hypotheses results for PM dimensions and their Effects on UPA

Hypotheses	Standardized coefficient	T-values	P<0.05	Results
PPR → UPA	0.003	0.82	.935	Rejected
PP → UPA	0.232	4.581	.000	Accepted
PIM → UPA	0.276	5.135	.000	Accepted
PER → UPA	0.214	3.470	.000	Accepted
PAR → UPA	0.181	2.854	.000	Accepted
PM → UPA	0.588	20.128	.000	Accepted

The findings showed the multiple regression model summary for practices of each PM dimension and their effect on UPA. Generally, the effect of PM dimensions (PPR, PP, PIM, PER and PA) on UPA was 0.588 (58.8%), $P<0.00= .007$. This indicated that the practices of PM dimensions have 58.8% contribution to UPA (Table 5).

The finding for the hierarchical coefficient regression was used to analyse the practices of PM as independent variables and its effect on UPA as the dependent variable. The Pearson coefficient regression analysis result had a statistically positive or significant effect between the practices of PM dimensions and on the UPA jointly. Hierarchical multiple regression analysis finding indicated that PP, PIM, PER and PA had a statistically positive effect on the UPA whereas PPR did not have a statistically positive effect on UPA of the study.

Comparing the Practices of PM Dimensions and their Effects on UPA

This section of the study showed the comparison of practices on PM dimensions and their effects on UPA of public and private universities. The succeeding tables showed and focused on the ANOVA and multiple regressions model summary that were found in PU and Pri.U. The study examined the hypothesis 'the practices of PM has significant and similar effect on the selected Ethiopian public and private universities' performance achievement'

Table 6. ANOVA for PM Dimensions

ANOVA						
UPA						
		Sum of Squares	df	Mean Square	F	Sig.
Practices of performance management dimensions	Between Groups	248.168	296	.838	3.812	.011
	Within Groups	2.200	10	.220		
	Total	250.368	306			

Table 6 shows the results of the analysis of variance on the practices of PM dimensions and their effects jointly on UPAs between public and private universities. The value of the sum of square between the groups for PM dimensions is 248.168 with 296 degree of freedom and mean square between the groups is 0.838. The value of the sum of squares within the groups for PM dimensions is 2.200 with 10 degree of freedom and the mean square within the groups is 0.220. The value of the resultant F ratio (mean square of between group/ Mean square of within group) for PM is $0.838/0.220 = 3.812$, which is significant with $p = 0.011$ at 0.05 significance level. Thus, it can be concluded that there is a significant difference between public and private universities in the practices of PM and their effects on UPAs.

The actual difference in the practices of PM dimension and its effect on UPAs between types of universities was large effect as shown in the Eta square result below. The effect size

was calculated using eta squared and the result was 0.99 and this indicated that PER has great effect on UPAs. This is calculated as

Eta squared= sum of squares between groups/Total sum of squares.

Eta squared= 248.168/250.368

Eta squared= 0.99

Table 7: Comparing Model Summary for the Effects of PM Dimensions on UPA

Model Summary					
Types of University	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
PU	1	.850 ^a	.722	.715	.54792
PriU	1	.632 ^b	.399	.359	.64514

a. Predictors: (Constant), PA, PPR, PP, PIM, PER

b. Dependent Variable: UPA

c. Predictors: (Constant), PA, PPR, PIM, PP, PER

Table 7 shows the regression analysis for PM practices and their effects on UPA in public and private universities. Table also showed that there were statistically positive associations between PM practices and their effects on UPA and the correlation R value is 0.85 for PU and the R value for Pri.U is 0.63.

The value of R^2 for PU was 0.722 which indicated that PM practices could account for 72.2 % of the values in UPA. This implied that the remaining 27.8 percent was not explained, which means it could be related to other variables, which were not depicted in the model. However, the value of R^2 for Pri.U was 0.399 which indicated that PM practices could account for 39.9 % of the values in UPA. The remaining 60.1 percent was not explained, which means that 60.1 percent of the variation of UPA was related to other variables, which were not depicted in model two. This variance was highly significant, as indicated by $P < 0.000$ for private universities.

In general, PM dimensions had a positive and significant impact on both public and private universities. The results of the hypotheses that 'there were significant similarities in the practices of PM dimensions (PPR, PIM, and PA) and their effects on UPA for both PU and Pri.U.' were accepted for both public and private universities. However, the hypothesis that "there were significant similarities between the practices of PM dimensions (PP and PER) and their effects on UPA for both public and private universities" was rejected since there were different results for these hypotheses.

CONCLUSIONS

This study used the practices of PM dimensions (PPR, PP, PIM, PER, PA) as independent variables, and university performance achievements (education program, research, out and community service) were used as the dependent variables. The researcher used Pearson correlation and hierarchical multiple regression analysis to indicate the association and effect of PM practices on UPA. The finding showed that the practices for PM dimensions were positively associated with UPA. The hierarchical multiple regression analysis (step by step) results indicated the effect of each predicate variable (PM dimensions) on UPA. The study also showed the comparison of PM practices and their effects on PU and Pr.U. There was a positive association between PM practices and UPA in both public and private universities. Though the study brings certain clarity regarding the direct effect of the practices of PM dimensions on universities' performance achievements, the study concluded there would be other factors that could contribute to the performance achievements of universities.

The results of the study would help practitioners in the field of PMS in universities design and implement strategic objectives using the system of PM dimensions. The study may have important contributions for universities' performance achievement since it examined the relationship of PM dimensions and their effects on the UPA.

The study may contribute to having clear performance planning, performance implementation, performance evaluation and review, and performance appraisal practices at college and department levels. These may help the practitioners in the field of PMS to cascade the strategic objectives from universities to colleges, departments, and then to academic staff levels. Thus, it is recommended that the introduction of PMS in universities requires a concerted effort from the management and college dean to inform employees of the main purposes of universities, establish trust, and involve all staff. Workshops and training on the main purposes of the PM dimensions should be continued at all levels in order to share the mission, vision, and strategic objectives of the universities and to have a clear understanding of the PM dimensions' practices.

LIMITATIONS OF THE STUDY

The present study has several limitations that deserve review. First, the study was conducted on the assumption that the practices of PMS such as performance pre-requisite, performance planning, implementation, evaluation and review, performance appraisal are the independent variables that influence the dependent variable UPA such as education, research and community service. There would be other independent variables which could influence

Ethiopian public and private universities' performance, such as political, economic, and legal issues, governance issues, and leadership styles.

Second, there were limitations on the data analysis method for organizational (university) performance achievements. This study was limited to perceived organizational (universities) performance achievements (education, research outputs and community service). The study did not examine the input- process-output process, especially the financial and other monetary resources.

Third, the results of this study must be qualified in terms of the samples that were used. Extensive sampling was beyond the resources of the researcher. To enhance external validity, future research efforts should obtain a representative sample from several universities, ideally using longitudinal research design to establish causal relationships among the variables.

Fourth, since only academic staff were used as samples in this study, this may raise the issue of generalisability of findings. More research is needed before the generalisable implications for academic staff can be drawn. Generalisability of the results of these analyses for non-academic staff remains an open empirical question. Additional replication using a more careful comparison by types of employees and types of occupation would be useful.

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ANNEXURE

Annex one: Respondents' Profiles

Table 1. Respondents' Gender

Types of university		Gender		Total
		Male	Female	
PU	Freq.	190	36	226
	% for PU	84.07	15.93	100
Pri.U	Freq.	75	6	81
	%	92.5	7.5	100
Total for both PU and PriU	Freq.	265	42	307
	%	86.3%	13.7%	100.0%

Table 2. Respondents' Age

Types of University		Age			
		20-30	31-40	41-50	51 and above
PU	Count	86	120	17	3
	%	38.1	53.0	7.5	1.3
Pri.U	Count	8	42	23	8
	%	9.6	52.2	28	9.65
Total for PU and Pri.U	Count	94	162	40	11
	%	30.6%	52.7%	13.1%	3.6%

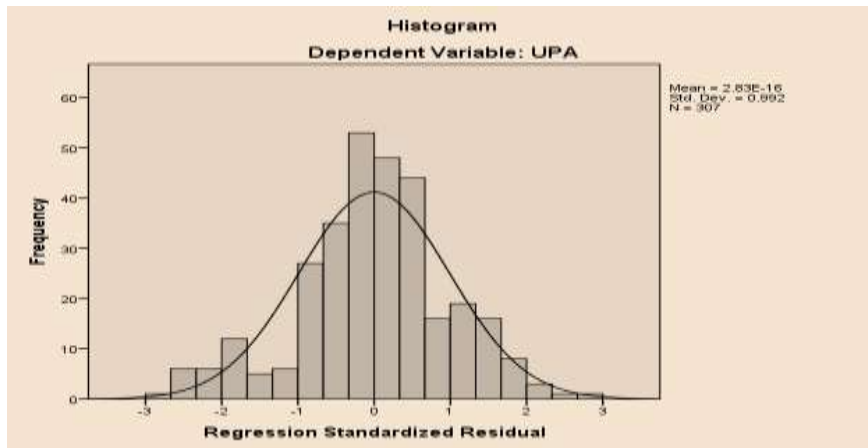
Table 3. Respondents' Service Year

Types of University		Experience				
		1-5	6-10	11-15	16-20	21 and above
PU	Count	65	102	35	22	2
	%	28.8	45.3	15.6	9.98	0.82
Pri.U.	Count	12	22	38	14	5
	%	14.8	27.1	46.9	17.2	6.1
Total PU and PR.U	Count	87	124	63	26	7
	% of Total	28.3%	40.4%	20.5%	8.5%	2.3%

Table 4. Respondents' Academic Background

Types of University		Education		
		BA or BSC	MA or MSC	PhD
PU	Count	11	184	31
	%	5.7%	81.4%	13.7%
Private U.	Count	3	73	5
	%	3.7%	90.1%	6.1%
Total Respondents of PU and Pri.U	Count	13	257	34
	%	5.2%	83.7%	11.1%

Annex Two: Histogram Normal distribution for PM Practices and UPA



Annex three: P-P Plot for PM practices and their Effects on UPA

