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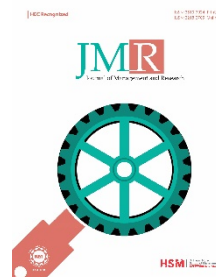|	
Title:	**Impact of Reward System on Academic Staff Engagement (ASE) and Organisational Performance (OP) in Technical Universities (TUs): A Case of Ghana**
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Impact of Reward System on Academic Staff Engagement (ASE) and Organisational Performance (OP) in Technical Universities (TUs): A Case of Ghana

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Abstract

Reward systems are significant organisational management tools for acquiring, retaining, and motivating potential employees and for attaining higher levels of performance. The primary goal of this research is to explore the impact of reward system on academic staff engagement and organisational performance in selected Technical Universities (TUs) in Ghana. To achieve the objective, data was collected using Google Forms from 315 academic staff working at 5 selected TUs. Afterwards, it was gathered in SMART PLS (SEM) and analyzed using descriptive and inferential statistics. The findings revealed that (i) Academic Staff Engagement (ASE) has a significant positive effect on Reward System (RS), (ii) RS has a significant positive effect on Organisational Performance (OP), (iii) ASE influences OP, and (iv) RS significantly mediates the relationship between ASE and OP. Therefore, the findings suggested that the organisational reward system and academic staff engagement are critical human resource factors for improving the performance of the technical institutions. The outcome of this research calls for the policy makers and the TUs management to consider reward system and academic staff engagement programs as tools for driving institutional performance. The study also contributes significantly to the knowledge and the application of ASE, RS, and OP in theory and practice in the context of higher education institutions.

Keywords: academic staff engagement, Ghana, organisational performance, reward system, technical universities

Introduction

The post coronavirus (Covid-19) era has seen a complex array of social, economic, and political changes worldwide posing serious challenges to the

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world of work. Additionally, with the globalisation and rapid diffusion of technologies, the new workplace environments are characterized with increased and intensified work pace. The rate at which these changes are happening poses serious implications and consequences for the Higher Education Institutions (HEIs), especially those of the developing nations. The reason is that HEIs hold a strategic position in every nation as they are responsible for sharing and imparting knowledge (ChaaCha & Oosthuysen, 2023). From across all schools of thought, academic employees are considered the most valuable assets needed for driving institutions to success during challenging times, hence, the importance of motivating employees. In this context, the reward system within academia is gaining more attention given the growing concerns that the educational sector is not sufficiently rewarded and recognized. The higher education sector in developing countries is characterized with increasing competition in the job market with more diverse and high demanding work environment. Hence, the sector is faced with the challenges of motivating the workforce to ensure efficient employees are retained to drive the institutional goals and objectives. This is akin to the Ghana higher education sector (inclusive of technical universities), as elsewhere in other developing countries.

Employee Engagement (EE) has never been more critical than now in HEI given the global changes and particularly the post Covid-19 induced challenges. It is considered one of the essential key elements of success beyond academic practices, given that it boosts morale, enhances talent retention, as well as productivity. In absence of such engagement, the rate of disconnected employees would likely increase and manifest in institutional financial loss, increased labour turnover/absenteeism, and loss of productivity for institutions. Thus, the importance of harnessing the shared values of the diverse academic workforce, to achieve the institutional goals and objectives thereby leading to improved performance. In fact, the Gallup Report (2020), of for American organisations (HEIs inclusive) on employee engagement and performance, shows that high employee engagement correlates strongly with positive performance outcomes, which includes profitability, productivity, well-being, and retention. The Africa People Advisory Group (2021) shared similar views on the importance of employee engagement and performance of organisations. The reports showed that engaged employees are emotionally committed, more productive, and effective, with a higher tendency to stay longer in their organisations. In this context, reward helps to boost employees' motivation,

resulting in more engagement and improved institutional performance. Therefore, the importance of reward system in this context cannot be overlooked.

The concepts of reward system and employee engagement and their use in driving organisational performance has never been more important in the higher education sector than now. The reason behind it is the increasing brain drain across professions, which has intensified the limited capacities of facing African higher education sector in the post Covid-19 era (Dzinamarira & Musuka, 2021; Ossai & Ogbuoji, 2021). In addition to these challenges, the Ghana higher education sector is further marked with slow pace in adopting new models of operation, teaching, and learning. Thus, failed in providing relevant programs and infrastructures for addressing local problems aimed at contributing to the social changes era (Dzinamarira & Musuka, 2021; Ossai & Ogbuoji, 2021). Therefore, this study posits that reward system plays a vital role in addressing these on-going challenges. Moreover, the study addresses the following objectives.

1. To examine the influence of reward system on academic staff engagement on of TUs in Ghana.

2. To examine the influence of reward system on the organisational performance of TUs in Ghana.

3. To examine the influence of academic staff engagement on performance of TUs in Ghana.

4. To investigate the mediating effect of rewards systems on the relationship between academic staff engagement and the performance of TUs in Ghana.

A study of this nature contributes significantly to the knowledge and the application of academic staff engagement, rewards, and organisational performance in theory and practice for higher education institutions. It provides insights for policy makers on how these constructs can be used to manage the on-going brain drain affecting African higher education sector. In view of this, the current study is organised as follows: beyond this introduction, is the theoretical expositions and hypotheses development, a review of relevant literature. Following are the research methods adopted for the study and the results and discussions of the research findings. The article then puts forward the concluding thoughts with possible recommendations.

Theoretical Underpinnings and Hypotheses Development

The employee - employer relationship is one of the main tenets of management practices. It involves all aspects in the relationship, including formal, informal, social, and psychological, that defines employers' expectations and employees' contributions, as well as inducements towards the contributions (Che et al., 2022; Tsui et al., 1997). One of the theories that underpins employer and employee relationship is the Social Exchange Theory (SET). Rooted in the works of Homans (1958), SET is built on the idea of social exchange as a behaviour and its application spans through the fields of sociology and behavioural psychology. Jonason and Middleton (2015), asserted that behaviours can be thought as a cost-benefit analysis, that is individuals are likely to perform a behaviour with society and their environment if they perceive a reward associated with the said behaviour. In contrast, when the cost outweighs the benefit, individuals are not likely to perform the behaviour. Accordingly, Cropanzano et al. (2017) defined SET as (i) an initiation by an actor toward the target, (ii) an attitudinal or behavioral response from the target in reciprocity, and (iii) the resulting relationship. In the triad arrangement, RS and ASE can be viewed as initiators from an employer targeting the employees. Employees are likely to reciprocate with positive affirmation, showing commitment to their work, which then fosters performance of the organisation.

Influence of Academic Staff Engagement (ASE) on Reward System (RS)

Motivating employees by developing emotional connections between the employer and the employee in this changing time is an important management practice. Siswanto et al. (2021) noted that the act of giving rewards helps to push and motivate employees to perform optimally at their workplace. Engaging employees creates a sense of loyalty and such engaged employees are likely to have positive feelings towards their work, which in turn leads to lower turnover intentions and higher organisational performance (Hermawan et al., 2020). Hence, the following hypothesis is proposed by the current research.

H_1: *Academic staff engagement has a significant positive relationship with reward system at Tus in Ghana.*

Influence of Reward System (RS) on Organisational Performance (OP)

Accordingly, Tripathy and Rohidas (2022) argued that the success of firms is not fully dependent on the human capital rather on the ability to trigger the best productivity from the available human resources. Most organisations are applying innovative strategies to ensure optimal performance for their employees. As such, reward system has become one of the most effective competitive tools to many organisations. Mehmood (2013) noted that incentives are important for boosting employees' morale, increase workers' job satisfaction, and alter the behaviour of the dissatisfied workers. With attractive reward system, employees tend to give in their best with the resultant effect of improving the performance of the organisation. Notably, reward system impacts positively on organisational performance through improved employees' performance (Aliu et al., 2013; Okwuise & Ndudi, 2023). Thus, the following hypothesis is proposed.

H_2: Reward system has a significant positive relationship with organisational performance at TUs in Ghana.

Influence of Academic Staff Engagement (ASE) on Organisational Performance (OP)

Currently, academic staff engagement and organisational performance are the two overarching ideas regarding workplace. Muller et al. (2018) asserted that academic staff engagement is a powerful and useful tool for organisations to achieve a competitive edge. Studies have shown that academic staff engagement is influenced by various factors, which encapsulates how people feel about their entire work in an organisational setting. For Stewart et al. (2019), academic staff engagement is influenced by factors, such as workplace culture, organisational communication, managerial styles, trust, respect, and leadership. Chakraborty and Ganguly (2019) highlight the importance of personal traits and environmental factors as significant determinants of engagement and productivity. The authors argued that the person-environment paradigm provides the best explanatory value for work performance. Other views on the link between ASE and OP suggested that variety of factors can provide a strong relationship between these two concepts. They include developing strategies for coaching and managing an organisational workforce, co-workers, communication, working conditions, fringe benefits, nature of the work, nature of the organisation, organisational policies, systems, and procedures, work

compensation, promotion, personal development, security, appreciation, and supervision. These factors interact to impact employee satisfaction and performance (Mansor et al., 2023; Oluwatunmise et al., 2020). Hence, the proposed hypothesis is:

H3: Academic staff engagement has a significant positive relationship with organisational performance of TUs in Ghana.

## Mediating Effect of Reward System on ASE and OP

Marleyna et al. (2022) demonstrated in their study the way reward system supports employee engagement through satisfaction as a mediating variable. The authors argued that when employees are rewarded, they feel obligated to show higher levels of engagement and give more efforts to completing their tasks in order to optimize productivity. Similarly, Siswanto et al. (2021), in their study, showed that reward system has a significant positive effect on employee performance through academic staff engagement. In support, Silitonga et al. (2020) provided evidence of a direct correlation between employee engagement and organisational success. Hence, the following hypothesis states that:

H4: Rewards system effectively mediate the relationship between academic staff engagement and the performance of TUs in Ghana.

Given the foregoing, the current study proposes a conceptual framework, depicted in Figure 1.

Figure 1

Conceptual Illustration of the Hypotheses Pathways
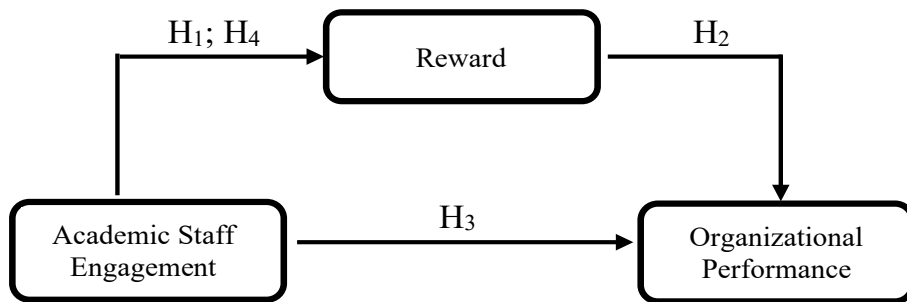
The hypotheses pathways in Figure 1 shows the triad relationships within the constructs of Academic Staff Engagement (ASE), Reward System (RS) and Organizational Performance (OP). The mode depicts that

there is a direct and positive relationship of reward system with ASE and OP, respectively. Whereas, reward system, a mediating variable, has a direct positive relationship with academic staff engagement and organisational performance.

Literature Review

Reward System

Organisational reward system has become a vital tool, central in any working relationship between an employer and employee. Recent developments have shown an increase in scholarly works embracing reward in higher education, a sector which has not been sufficiently rewarded and recognized over the years. Being an important component of human resource management practices, Armstrong (2011) posited that reward system consists of an integrated strategies, procedures, and activities of a company to compensate its workers in accordance with their commitment, ability, and skills. As an integrated strategy, reward systems comprise of intrinsic and extrinsic factors that enhance and motivate the conduct of employees to attain high performance in an organization. While intrinsic rewards are mostly financially related (for example, salary, wages, bonuses), extrinsic rewards relate to non-financial factors (for example, recognition, praise, flexible working hours, and social rights). In this regard, appropriately rewarding the workforce helps to (i) attract the right caliber of employees, (ii) retain excellent performers, and (iii) maintain the employees' zeal to work (Emuron, 2020).

Employee (Academic Staff) Engagement

A comprehensive reward system capable of addressing the needs of academic staff is nonetheless a daunting task. With the recent societal changes and rapidly evolving new world of work, researchers and professionals are calling for continuous engagement of the employees to compliment the available organisational reward system for achieving success. Thus, academic staff engagement (ASE), a concept dominating academic research today and particularly human resource management, is gaining ground as a support for organisations' mental capital both for cognitive and emotional fortitude, and strength of the employees towards higher economic outcomes (Schaufeli & Salanova, 2014). The concept was first coined by Kahn (1990), as the investment of the self into work roles but overtime has developed beyond such. Views on employee engagement

varies in terms of its interpretation, calculation, and conceptualization, from either individual or organisational perspectives. In this context, the terminologies used among researchers differ, for instance work engagement, personal engagement, job engagement, and organisational engagement. Hence, the current research adopts the definition presented by Schaufeli et al. (2002) which is widely accepted in academic and industry research. Employee engagement is, therefore, defined as a positive, fulfilling, and work-related state of mind that is characterized by vigor, dedication, and absorption. These aforementioned authors noted that when employees are engaged, there exists a feeling of enthusiasm, dedication, and absorption in relation to their work. Such feelings induce employees to be energetic, passionate, involved (mentally, physically, and emotionally) towards positive organisational performance (Rana et al., 2014; Schaufeli et al., 2002).

Organisational Performance

Organisational Performance (OP) is a concept often debated on its acceptable definition. Guillen and Saris (2013), referred organisational performance to transforming adaptive and complex change realized with a model composed of multiple indicators for the purpose of generating core added value for the business. In agreement, a review of scholarly works on organisational performance showed the concept is measured across multiple indicators in relation to the internal and external environment of the organisation (da Silvaa & Borsato, 2017; Kandzija et al., 2022). In this regard, such indicators range from financial to non-financial aspects, which may also include structures, policies, culture, and others. In essence, all aspects of an organisation affect its performance including its reward system and employee engagement. Various research studies have demonstrated the positive relationship (directly or indirectly) among the variables of reward system, academic staff engagement, and organisational performance (Mansor et al., 2023; Marleyna et al., 2022; Manzoor et al., 2021; Tripathy & Rohidas, 2022). This is akin to academic staff in the context of higher education as demonstrated by various research studies (Agbionu et al., 2018; Cassim et al., 2024; Nachonga & Matagi, 2022). The findings of previous researches indicated that a good reward system motivates academic staff to show more commitment to their work. Siswanto et al. (2021) posited that meeting the needs and wants of employees, including rewards, leads to higher organisational performance. Similarly,

institutions with high academic staff engagement often outperform their competitors. Hence, ASE and RS are considered important drivers for overall institutional performance in the higher education sector.

Methodology

The study adopted a quantitative, descriptive, and cross-sectional survey research design. Using a stratified random probability sampling technique, data was collected using closed-ended questionnaires, through Google Forms. A unit of analysis comprising 315 from a target population of 1128 was used for the study. According to Krejcie and Morgan (1970), the sample is representative of the population of the five technical universities in Ghana that participated in the study. The sections of the questionnaire addressing ASE were adopted and modified from the works of Yadav and Morya (2019), reward system from Chiang (2005), while some questions on organisational performance were adopted from the works of Ramos-Villagrasa et al. (2015) and Abubakar et al. (2018). The questions were measured using a 7-point Likert scale ranging from 0 to 6 (strongly disagree to strongly agree). Three hundred and fifteen (315) questionnaires were retrieved and considered ideal for the analysis. Data was captured into the SMART PLS (SEM) and analysis performed using descriptive and inferential statistics. Descriptive statistics was used to analyze the demographic characteristics of the respondents and presented as frequencies and percentages. The Structural Equation Modelling (SEM) was used to determine the influence of each variable on the other and the mediating effect of reward system on the relationship between academic staff engagement and organisational performance in the context of technical universities in Ghana. Thus, the study tested the structured research hypotheses formulated from the research objectives.

It is noteworthy to indicate that all ethical procedures, which include granting permission to conduct the study, the use of informed consent, maintaining the anonymity of the respondents, and others were duly followed. The participation of the respondents was solely on voluntary basis.

Results

Descriptive Statistics of the Demographics

The respondents' demography is distributed along gender, age, marital status, academic qualification, job title, years of service, and institutional

representation. The descriptive analysis is presented as frequencies and percentages in Table 1. The institutional representation of the respondents is presented in Table 2.

Table 1

Respondents' Demographic Profile and Other Characteristics (N=315)

Respondents	Characteristics	Frequency (n=315)	Percent (%)
Gender	Male	229	72.7
	Female	86	27.3
Age	20 – 30 years	2	0.6
	31 – 40 years	52	16.5
	41 – 50 years	159	50.5
	51 – 60 years	92	29.2
	Above 60 years	10	3.2
Marital Status	Single	37	11.7
	Married	262	83.2
	Divorced	14	4.4
	Separated	2	0.6
Respondents Qualification	Masters	244	77.5
	PhD	69	21.9
	Other	2	0.6
Respondents Positions	Assistant Lecturer	78	24.8
	Lecturer	85	27.0
	Senior Lecturer	140	44.4
	Associate Professor	8	2.5
	Professor	4	1.3
Length of Service	Below 1 Year	4	1.3
	1-5 Years	58	18.4
	6-10 Years	30	9.5
	11-15 Years	148	47.0
	16 Years and Above	75	23.8

Table 2

Respondents' Institutional Profile

Respondents	Characteristics	Frequency (n=315)	Percent (%)
Employees' Institution	TTU	235	74.6
	KsTU	12	3.8
	CCTU	16	5.1

Respondents	Characteristics	Frequency (*n*=315)	Percent (%)
	HTU	28	8.9
	TaTU	24	7.6

In this study, the statistical technique known as Partial Least Squares Structural Equation Modeling (PLS-SEM) version 4.0 was employed to examine the relationships among latent variables. PLS-SEM was used in this study because, according to Hair et al. (2017), it is dependable for yielding accurate results for research in fields, such as social sciences and business. It is particularly well-suited for studies with complex theoretical models and non-distributed data. PLS-SEM has also been enhanced by many methodological advancements, such as the Cross-Validated Predictive Ability Test (CVPAT), which increases the predictive power of the model and permits construct-level benchmarking.

Assessment of the Measurement Model

The relationship between latent variables was assessed using a three-stage measurement model that included factor loadings, convergent validity, and discriminant validity. Factor loadings quantify the extent to which observable variables and underlying factors are related. The factor loadings were closely inspected or loaded into the appropriate areas to guarantee the quality of the model fit. All loadings met the minimal cut-off of 0.5 as suggested by Hair et al. (2017). Subsequently, internal consistency and convergent reliability were calculated using Cronbach's alpha and Composite Reliability (CR), whereas Convergent Validity (CV) was evaluated using the Average Variance Extracted (AVE) (Hair et al., 2019). Each model construct exhibited a strong convergent validity (Table 3) and satisfied the suggested Cronbach's alpha threshold of ≥ 0.7, signifying satisfactory internal consistency. AVE computes the variation that a construct captures and the variation that results from measurement error. It is generally accepted that the construct accounts for more than half of the variation in its indicators when the AVE is 0.5 or greater. This is necessary to demonstrate the construct's validity.

Table 3

Constructs, Measurement Items, and Reliability and Validity Tests

Constructs	Items	Loadings	VIF	CA	CR	AVE
	While working I feel active (EE1).	0.827	2.501	0.923	0.945	0.727

Constructs	Items	Loadings	VIF	CA	CR	AVE
Academic Employee Engagement	At work, I am sturdy and impassioned (EE2).	0.630	1.693			
	Every morning, I desire to go to the job (EE3).	0.908	4.008			
	My work motivates me (EE4).	0.903	3.689			
	I am very keen on my tasks (EE5).	0.920	3.645			
	I take pride in my responsibilities and feel a sense of self-importance in fulfilling my tasks (EE6).	0.891	3.427			
Organisation Performance	I believe the best work is currently taking place in research and teaching within the field of expertise for academic reputations.	0.856	2.541	0.895	0.911	0.703
	Our institution produces the best graduates for employment.	0.866	2.489			
	Our institution believes in small class sizes and a good level of individual supervision for faculty-to-student ratio.	0.837	2.526			
	Our institution believes in research impact and produces publications that attract citations.	0.868	2.906			
	Our institution believes in providing incentives that attract academics from other nations for a good international faculty ratio.	0.763	2.408			
Rewards Systems	I prefer a basic salary to other rewards.	0.742	1.758	0.824	0.837	0.532
	My annual salary should increase.	0.792	1.893			
	The benefits I enjoy motivate me more.	0.638	1.492			

Constructs	Items	Loadings	VIF	CA	CR	AVE
	I prefer individual incentives.	0.737	1.709			
	I prefer team incentives.	0.675	1.892			
	The organizational incentives I receive are satisfying.	0.778	1.908			

Discriminant validity, which ensures that constructs are unique, strengthen the theoretical implications, enhance measurement quality, and facilitate accurate model interpretation, is a crucial component of construct validity in SEM research. The Fornell-Larcker criterion, which compares the square root of the Average Variance Extracted (AVE) for each construct with its correlations with other constructs to ensure distinctiveness, is a commonly used method for assessing discriminant validity in structural equation modeling (Dijkstra & Henseler, 2015). This criterion is preferred because it is widely accepted and easy to apply to identify distinct latent variables within the measurement model (see Table 4). The minimum threshold for this criterion is typically set at 0.50 or above.

Table 4

Discriminant Validity-Fornell Larcker Criteria

Constructs	Academic Staff Engagement	Organizational Performance	Reward Systems
Academic Staff Engagement	**0.853**		
Organizational Performance	0.584	**0.839**	
Reward Systems	0.602	0.601	**0.729**

**Assessment of the Structural Model and Hypothesis Testing**

The structural model was assessed in the last phase, which also involved computing the coefficient of determination (R^2) and conducting hypothesis testing (Hair et al., 2019). Before this, the predictor constructs' collinearity was evaluated by the researchers. The Variance Inflation Factor (VIF) values, which ranged from 1.45 to 4.08 (Table 3), showed unbiased path coefficients that agreed with Hair et al. (2017). The R^2 values, which indicated explanatory power and predictive ability were then determined, as indicated in Table 5. After the hypotheses testing, the following results were obtained as shown in Table 5. Table 5 also displays significant values, t-values >1.96 (or *p*-values 0.05) and regression coefficients for various

constructs, Beta (β). The regression model's coefficient of determination (R^2) was used to measure the prediction. The coefficient indicates the portion of the dependent variable's variation that can be ascribed to the independent (predictor) variable. Thus, as indicated in Table 5 and Figure 2 below, R^2 values for organizational performance and reward system are 43% and 36%, respectively.

Table 5
Hypotheses Testing

Constructs	Original Sample	Sample Mean (M)	Standard Deviation	t	p	Decision
Academic Staff Engagement -> Reward Systems	0.602	0.604	0.048	12.427	0.00	Accepted
Reward Systems -> Organizational Performance	0.392	0.392	0.072	5.456	0.00	Accepted
Academic Staff Engagement -> Organizational Performance	0.348	0.350	0.068	5.111	0.00	Accepted
		R-square			*R-square adjusted*	
Organizational Performance		0.439			0.435	
Reward Systems		0.362			0.360	

Figure 2
Structural Model
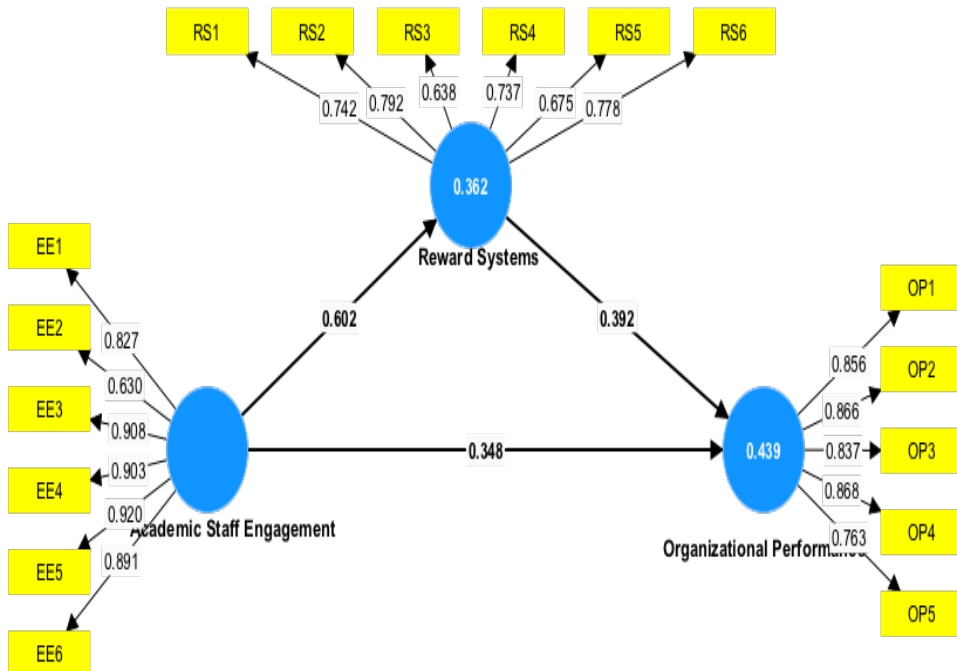
Discussion

Building on SET model, the study investigated the influence of academic staff engagement (reflects as EE) on reward system H_1, reward system on organisational performance (H_2), academic staff engagement on organisational performance (H_3), and the mediating effect of reward system on the relationship between academic staff engagement and organisational performance (H_4).

Primarily, the findings showed a positive effect of ASE on reward system, thus supporting H_1. Furthermore, all factor loadings are above 0.7 minimum requirement (except for EE2 at 0.63) with average variance extracted values exceeding 0.60. It is important to note that higher factor loadings were recorded for items EE3 at 0.908, EE4 at 0.903, and EE5 at 0.920 (as shown in Figure 3). This finding aligns with the results of other similar studies conducted in the context of higher education institutions. Cassim et al. (2024) found that organisational support, which consists of components of reward among others, increases the academics levels of engagement. Mubeen and Alam (2022), in their study on selected higher education institutions in Pakistan, found a strong relationship between employee engagement and tangible and intangible rewards. In another study, Benjamin et al. (2022) revealed, among other antecedents measured, that rewards and recognition statistically and significantly impacted the engagement levels of faculty members in the selected higher educational institutions sampled in India. Ammari (2023), Ubas and Obra (2023) found a positive link between academic staff engagement and reward in the higher education institutions researched. Ammari (2023), added though, that academic employee engagement is determined by the perceived level of fairness in the reward system for the institutions sampled in the study. Another study by Azmy (2019) on employee engagement in higher education institutions found compensation (reward) as one of the factors that correlated with employee engagement. This implies that with a better reward system, the academic staff employees would be more engaged with the institution. Conclusively, these studies demonstrated the importance of reward systems as one of the factors in fostering academic staff employee engagement in HEIs. This is on the premise that when academic faculty staff feel appreciated and valued for their contributions to the institution, their levels of engagement with the institution increase, thus motivating them to perform to their full potential.

The second hypothesis (H₂) tested the relationship between the reward system and organizational performance. The hypothesis was also supported or accepted with an indication of most factors loading above 0.7 minimum threshold. The highest value, which is RS2 at 0.792 strengthened the significant relationship. This is an indication that reward system enhances the contextual performance of academics leading to better institutional productivity. This finding concurs with other studies on the utilisation of reward system as a motivating factor for academic staff employees to give in their best, which ultimately leads to improved organisational performance. This is demonstrated in the study by Okwuise and Ndudi (2023), where the authors found that the dimensions of reward system (specifically compensation policy and performance recognition) indicated a significant positive effect on the performance of the higher education institution researched. In another study, Bossey (2022) found that reward among other components has a significant positive effect on organizational performance in the sampled universities. Oboreh and Arukaroha (2021) explored that a reward management system, which includes tangible and intangible components, influences the performance of the selected universities sampled in their study. Thus, these studies have demonstrated the crucial role of reward systems in enhancing the performance of higher education institutions.

The third hypothesis (H₃) investigated the relationship between academic staff engagement and organizational performance. The results of this hypothesis were confirmed positively with highest OP at 0.868. This finding indicates that engaging academic staff of the sampled technical universities enhances their levels of commitment and productivity, which in turn reflects in the improved performances of the institutions. This finding is also consistent with previous empirical studies which linked employee engagement and organisational performance in the context of higher education institutions. Gede and Huluka (2024) and Issahaku (2022) found that the elements of employee engagement, which are vigor, dedication, and absorption have a significant and positive impact on organizational performance of the higher education institutions including those of Ghana. In another study, Ikon and Chukwu (2018), found a significant positive relationship between employee engagement and organisational performance of the selected universities researched in the study. The authors noted that when employees are engaged by allowing

them voice on matters affecting them, it increases the desire to stay and remain committed to the institution.

Table 6

Mediation Analysis H4

Indirect Effect	β	M	STDEV	t	p	Decision
ASE -> RS -> OP	0.209	0.21	0.045	4.637	0.000	Supported

Note. ASE = Academic Staff Engagement, RS = Rewards Systems, OP = Organisational Performance

Table 6 presents the mediating role of RS on the relationship between ASE and OP. The result of the mediation analysis in Table 6, shows a positive strong significance at ρ-value (0.000) with a coefficient of (0.209). This suggests that reward systems mediate the correlation between academic staff engagement and organisational performance at the selected universities. In other words, the result shows a path model of correlation between academic staff engagement and institutional performance through reward system, therefore, H_4 is supported. Limited research exists that has measured the mediating effect of RS on the link between ASE and OP in the context of higher education institutions. However, literature documents studies that indirectly reflect similar research area. In a study by Hadziahmetovic and Dinc (2020), the authors established that affective commitment mediates a link between reward and organisational performance in universities. Though the study measured the mediating effect of affective commitment, it pointed out the vital role of reward in improving affective commitment and organisational performance. The study by Iqbal et al. (2023) measured the relationship between intrinsic and extrinsic motivation and the performance of higher education but mediated by quality culture. These authors considered intrinsic and extrinsic motivation as rewards and found significant effects of intrinsic motivation and quality culture on higher education performance. Though this study did not completely involve RS, ASE, and OP, it showed that aspects of reward system influence the performance of higher education institutions.

Hence, the results, emanated from the current study, highlighted the importance of reward system, academic staff engagement, and organisational performance in the context higher education institutions in Ghana.

Conclusion

The results showed that ASE has a significant positive influence on RS, which positively influences OP, and ASE has a positive effect on OP. Moreover, the result showed that RS has a mediating effect on the link between ASE and OP of the sampled universities. It is evident from this study that with a good reward system, academic staff employees are more likely to engage and show higher commitment, which reflects in their ability to improve themselves and the performance of institution. Essentially, one can consider rewards system as one of the factors that make academic staff employees contribute more to the institution. Furthermore, academic staff engagement is vital for enhancing institutional performance because engaged employees are seen as the cornerstone for HEIs to strife in this changing environment.

Recommendations

This study contributes to the knowledge of the antecedents of reward systems and organizational performance. By synthesizing these findings, HEI's in Ghana can develop comprehensive strategies for managing reward, enhance academic staff engagement, which would ultimately lead to improved institutional performance. Thus, this study recommends that to better manage academic staff, HEIs in Ghana need to create a good incentive programme and invest in strategies that promote employee engagement, as well as the performance of institutions.

Conflict of Interest

The authors of the manuscript have no financial or non-financial conflict of interest in the subject matter or materials discussed in this manuscript.

Data Availability Statement

The data associated with this study will be provided by the corresponding author upon request.

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