

THE INFLUENCE OF STAFF ENGAGEMENT ON THE PERFORMANCE OF PRIVATE HIGHER EDUCATION INSTITUTIONS IN MALAYSIA

Asha A/P Ramasami¹ & Waleed Abdulkafi Ahmed Al-Malami²

¹PhD Candidate at the Faculty of Business, Lincoln University College, Malaysia

²Faculty of Business, Lincoln University College, Malaysia

Received: 15 Apr 2025

Accepted: 01 May 2025

Published: 30 May 2025

ABSTRACT

The performance of an organization is comprised of several key factors, including strategic planning, operations, financial management, compliance with legal requirements, and organizational development. The goals of an organization are significantly improved when employees have a comprehensive understanding of the responsibilities and obligations they are responsible for. To establish performance expectations, monitor progress, and achieve desirable outcomes, management, leaders, and employees must maintain continuous communication with one another. The degree to which employees enthusiastically pursue the business's goals, demonstrating excitement, dedication, and involvement, is referred to as staff engagement. Staff engagement is a crucial component of an organization's effectiveness. The purpose of this article is to investigate the influence of staff engagement on the overall performance of Malaysian private institutions. During this study, the researcher employed a quantitative approach to data collection and analysis. The method of purposive sampling that was used in this analysis did not rely on probability. The evaluation of the partial least squares structural equation path model (PLS-SEM) was carried out with the assistance of SmartPLS 4. 2. The findings of the research, which establish a substantial positive association between Staff engagement (SE) and performance (OP) of private institutions in Malaysia, are demonstrated by the analytical results ($\beta = 0.474$, $t = 7.571$, $p < 0.01$). These findings provide additional support for the accuracy of the research conclusions.

KEYWORDS: *Staff engagement, Organizational Performance, Private, University, Malaysia*

INTRODUCTION

Private institutions in Malaysia are dependent on their capacity to effectively address unforeseen issues to achieve success in terms of performance. On the other hand, Paul and Anantharaman (2003) argue that the primary objective of organizational performance is to achieve superior performance or maximize shareholder wealth. According to Laitinen (2002), performance is defined as the capacity of an object to satisfy specific objectives in a predetermined order. Elements such as strategic planning, operations, financial management, adhering to legal requirements, and organizational development are included in the definition of organizational performance. The ability of individuals to understand their roles and responsibilities is crucial to achieving an organization's objectives. Furthermore, management, leaders, and employees must maintain continuous communication to effectively define performance expectations, monitor progress, and achieve favorable results (Katou, 2008).

One of the most crucial elements of organizational effectiveness is staff engagement, defined as the commitment, energy, and immersion employees exhibit towards the organization's objectives (Jaya & Ariyanto, 2021). Elevated levels of commitment, energy, and immersion are correlated with engaged employees, and these characteristics enhance organizational adaptation and resilience (Karafakioglu & Afacan Findikli, 2024). Additional staff are required to ascertain the extent to which SE influences the OP of Malaysian private institutions.

Research by Abu-Mahfouz et al. (2023) and Lu et al. (2023) illustrates the potential impact of staff empowerment on the efficacy of strategic initiatives. It elucidates the intermediary effects of knowledge management and staff empowerment on organizational performance. The 2023 study by Arif et al. highlights the influence of internal communication on employee engagement within academic environments, stressing the significance of efficient communication channels. This study aims to rectify gaps in the literature by integrating a varied spectrum of academic contributions, including research on operational flexibility, organizational culture, internal communication, and sustainable human resource management practices. The study provides a comprehensive understanding of the impact of staff engagement on the organizational performance of private institutions in Malaysia by synthesizing data from multiple sources. This study aims to improve our understanding of the complex dynamics operating within Malaysian private organizations by collecting data from many sources. The research offers critical insights and recommendations for policymakers and university administrators on fostering a culture of staff engagement to enhance performance and competitiveness in the higher education sector. The methodical analysis and scrutiny of data achieves this.

LITERATURE REVIEW

Staff Engagement

Despite the enduring use of the notion of staff engagement under various terminologies, such as job involvement or job empowerment, a persistent controversy remains regarding its exact definition. The lack of a precise definition of the notion has created an additional barrier in specifically identifying the suitable quantification approach. Staff involvement, conversely, can be measured along a singular dimension, as posited by specific authors (Maslach & Leiter, 1997). This concept contrasts with iteration fatigue. Schaufeli, Salanova, González-Romá, and Bakker (2002) argue that it should be evaluated as a multidimensional construct. The orientations were established on the principle that weariness is incompatible with staff engagement. Conversely, the phenomenon of employee tiredness and staff engagement directly contradicts this concept. Burnout and employee engagement are not inherently contradictory in practice. The concept of staff engagement has been in existence for an extended period. Nonetheless, the many approaches and interpretations have obstructed the development of an appropriate measure that truly embodies the idea (Thomas, 2009). Therefore, providing a concise summary of the concept's development is essential to clarify its significance and facilitate a more accurate assessment. According to Kahn's 1990 definition, staff engagement refers to the dedicated effort employees exert in their roles. Staff engagement refers to employees' active participation and interaction in performing their job responsibilities, comprising physical, cognitive, and emotional components. In their professional pursuits, individuals amalgamate their identities. Staff engagement, as defined by the Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), was characterized by Maslach and Leiter (1997) as the direct opposite of burnout. They hypothesized that committed individuals perceive a sense of rejuvenation and consider their responsibilities as intellectually engaging, which helps them avoid fatigue. Maslach, Schaufeli, and Leiter (2001) developed the Utrecht model of staff engagement, while Maslach and Leiter (1997) introduced the foundational proposal, marking both as pivotal works in this domain.

Conversely, Schaufeli et al. (2002) assert that the burnout inventory is the only effective means for assessing the burnout-engagement continuum. Staff engagement is characterized as a positive and fulfilling cognitive condition related to one's profession, marked by excitement, dedication, and complete immersion. They developed a novel instrument grounded in their definition to quantify this concept. Vigor is characterized by a substantial degree of energy and mental fortitude in one's endeavors, along with a willingness to exert effort in labor. Dedication includes sentiments of significance, fervor, drive, fulfillment, and challenge. Absorption is a condition of total concentration and profound engagement in one's tasks, when time appears to elapse rapidly, making it difficult to disengage from work. To date, there has been little emphasis on principles that may be regarded as antithetical to burnout. A term derived from role theory is 'psychological presence' or 'being present.' It denotes an experience condition in which individuals invest their resources in physical, cognitive, and emotional endeavors (Kahn, 1992). Kahn (1992) offers a comprehensive theoretical framework for psychological presence but fails to propose a precise method for measuring or defining the construct.

Organizational Performance

This is the essence of organizational performance, which involves the purposeful pursuit of interventions that have been methodically planned to improve the efficiency and productivity of an organization, as well as the overall well-being and satisfaction of its members. The tangible achievements or successes of an organization concerning its planned outputs, objectives, and goals are what Jon and Randy (2009) identify as the criteria for determining organizational performance. An organization's corporate image, competencies, and financial performance are key factors that determine its effectiveness or inefficiency. As the foundation of organizational success, the concept that an organization is a voluntary coalition of productive resources, comprising human, financial, and capital assets, is the most important idea to understand. The primary responsibility of organizational performance is related to generating value. According to Carton (2004), determining performance indicators, teaching the evaluator to be accountable for evaluating value, and recognizing relevant prospects for value generation are all necessary steps in the process of developing value. Carton advocates for a methodical approach to value development. Identifying stakeholders, optimizing key processes, allocating human, material, financial, and informational resources, and implementing effective administration are all necessary steps for personnel to follow in order to produce a cohesive and transparent plan (Kotler, 2000).

Within the context of an organization, the phrase "efforts" refers to the actions and behaviors undertaken by individuals or groups, regardless of their nature or scope. The influence of these acts may be influenced by a variety of factors, including but not limited to the availability of equipment, financial resources, or joint endeavors (Ho, 2008). Generally speaking, the results that an organization accomplishes are what constitute the organization's performance. It is vital to analyze these outcomes so that the company can adequately represent both its market position and the efficiency of its internal operations. According to Paul and Anantharaman (2003), the primary goal of organizational performance is to either maximize shareholder value or achieve superior performance within the organization. The capacity of an object to accomplish particular aims or goals in a set order is what Laitinen (2002) means when he defines performance. Strategic planning, operations, financial management, legal compliance, and organizational growth are all key components of an organization's overall performance. An organization needs to have a clear understanding of the specific roles and responsibilities that each individual is accountable for in order to achieve its goals. According to Katou (2008), it is of utmost importance to ensure regular communication between employees, leaders, and management in order to create performance expectations, monitor progress, and achieve desirable results. According to Douwe et al. (1996), the

performance of an organization can be evaluated and understood by considering all the pertinent aspects that contribute to its overall existence and effectiveness in achieving its goals.

Kaplan and Norton (1996) and Hillman and Keim (2001) have emphasized the importance of conducting a comprehensive performance assessment in all critical areas of an organization's performance to ensure its survival, success, achievement, and expansion. Financial metrics are by no means the sole focus of performance measurement systems. Numerous competitors prioritize the analysis and utilization of the organization's tactics, strategies, strengths, weaknesses, and potential. Diverse scholars, such as Noble, Sinha, and Kumar (2002), Narver and Slater (1998), and Day and Wensley (1988), have articulated this concept. An organization's long-term viability and success are inextricably linked to its organizational performance. It is imperative to evaluate organizational performance in both the service and manufacturing sectors (Brynjolfson, 1993). Introduced by Kaplan and Norton in 1992, the balanced scorecard is used to evaluate an organization's performance. The balanced scorecard employed in this study comprises four dimensions: Financial Performance, Customer Satisfaction, Operational Efficiency, and Learning and Growth. Performance is a comprehensive indicator that encompasses a variety of metrics, including consistency, quality, and productivity. Actions, outcomes, and comparative measures may be included in performance indicators following established criteria. These indicators may include education and training concepts, as well as instruments such as leadership and management development. The objective of these initiatives is to improve comprehension and proficiency in performance management and essential skills (Richard et al., 2002).

The need for a comprehensive performance evaluation in all essential areas of an organization's performance has been emphasized by Kaplan and Norton (1996) and Hillman and Keim (2001). This is done to assure the organization's continued existence, success, achievement, and progress. On the other hand, performance measurement systems do not solely concentrate on financial measures. Analyzing and leveraging the organization's strategies, tactics, strengths, weaknesses, and potential is a priority for many competitors. Several academics have expressed this concept, including Noble, Sinha, and Kumar (2002), Narver and Slater (1998), and Day and Wensley (1988), among others. The overall performance of an organization is closely tied to its long-term viability and prosperity.

According to Brynjolfson (1993), it is of the utmost importance to evaluate the performance of organizations in both the manufacturing and service industries. When assessing a business's performance, the balanced scorecard is a tool initially introduced by Kaplan and Norton in 1992. Financial performance, customer performance, operational performance, and learning and growth performance are the four key components that comprise the balanced scorecard utilized in this investigation. Productivity, quality, and consistency are key indicators of performance, which is an all-encompassing measure that encompasses these parameters. When predetermined criteria are developed, it is possible to incorporate performance indicators, actions, outcomes, and comparative benchmarks. Instruments such as leadership and management development may be included among these indicators. Education and training concepts may also be included. According to Richard et al. (2002), the purpose of these efforts is to enhance individuals' abilities in terms of performance management and key skills.

RESEARCH METHODOLOGY

The researcher employed a quantitative methodology in this study, as Saunders et al. (2019) identified an exclusive correlation between positivist philosophy, a deductive approach, and a quantitative research design. The central unit of analysis in this study is private higher education institutions (HEIs). Each participating institution provided a singular response. The survey primarily focused on these individuals as they are more inclined to provide substantive input. To effectively address the study issue, it is imperative to select the most appropriate sampling technique (Saunders et al., 2019). Consequently, the researcher employed a non-probability purposive sampling strategy, chosen for its ability to select respondents who meet predetermined criteria (Sekaran & Bougie, 2016). The chosen participants are regarded as highly educated regarding their organizational plans and performance, hence enhancing the precision and significance of their input pertinent to the research questions and aims of the present study. Comparable research has employed similar methodologies, including those by Chan and Muthuveloo (2022) and Khaw and Teoh (2023). The data gathered from respondents via the questionnaire were subjected to a systematic analysis utilizing SPSS version 27. The initial phase involved data screening and preliminary analysis, which included several statistical evaluations such as outlier assessment, normality tests, linearity checks, and multicollinearity examinations. Furthermore, this research conducted a descriptive analysis, encompassing descriptive statistics of factors and participant profiles. The assessment of the partial least squares structural equation modeling (PLS-SEM) was conducted using SmartPLS 4, which consists of two phases: the evaluation of the measurement model and the structural model.

FINDINGS

Descriptive Analysis of Participant Profile

The descriptive analysis conducted in this study provided a comprehensive profile of the respondents, encompassing key demographic and professional characteristics such as gender, age, education, position, and experience. Table 1 Serves as a valuable resource for understanding the composition of the survey participants and gaining insights into their backgrounds.

The data from Table 1 Reveals a balanced gender distribution among the respondents, with 48.1% male and 51.9% female. This indicates a representative sample capturing perspectives from both genders within the context of Malaysian private universities. Regarding age distribution, most respondents fell within the 31-35 age bracket (21.2%), followed closely by those aged 41 and above (20.8%), suggesting a diverse range of age groups participated in the study. Additionally, significant proportions were observed for the age groups of 26-30 years (20.3%) and 36-41 years (19.3%), with smaller percentages representing respondents under 26 years.

Regarding educational attainment, most respondents held master's degrees (28.8%), followed closely by those with a Ph.D. certificate (25.5%) and those with a bachelor's degree (25.0%). Moreover, 20.8% of respondents possessed professional degrees, indicating a varied educational background among participants, which could contribute to a rich and diverse set of perspectives in the study.

Furthermore, the analysis revealed insights into the professional positions held by respondents within Malaysian private universities. The majority (30.2%) occupied directorial positions, indicating a significant representation of decision-makers within the surveyed institutions. This was followed by vice-chancellors (25.9%), managers (22.2%), and chancellors (21.7%), highlighting the diverse leadership roles held by respondents and their direct involvement in strategic decision-making processes.

The data showed a broad spectrum of expertise among respondents in terms of experience. Approximately 23.1% reported having 5-10 years of experience, while 21.2% had over 30 years of experience, indicating substantial knowledge and expertise within their respective universities. Additionally, 19.3% reported having 10-20 years of experience, 19.3% had less than five years, and 17.0% had 20-30 years, demonstrating a balanced distribution across different experience brackets.

In summary, Table 1 provides a detailed and insightful portrayal of the respondents' profiles, offering valuable context for interpreting the findings and understanding the perspectives of key stakeholders within Malaysian private universities.

Table 1: The Profile of Respondents

	Category	Number	Percentage
Gender	Male	102	48.1
	Female	110	51.9
Age	Less than 26	39	18.4
	26-30	43	20.3
	31-35	45	21.2
	36-40	41	19.3
	above 40	44	20.8
Education	Bachelor's Degree	53	25.0
	Professional Degree	44	20.8
	Master	61	28.8
	PhD	54	25.5
Position	Chancellor	46	21.7
	Vice Chancellor	55	25.9
	Director	64	30.2
	Manager	47	22.2
Experience	Less than 10	41	19.3
	10-20	49	23.1
	20-30	41	19.3
	30 -40	36	17.0
	Above 40	45	21.2

Descriptive Analysis of Variables' Indicators

Table 4.2 provides a detailed breakdown of the staff engagement (WE) variable, offering insights into the various dimensions of employee engagement within private universities in Malaysia. This variable comprises nine items, each aimed at capturing different facets of employee engagement, as perceived by respondents utilizing the Likert scale.

The highest-ranking item within the WE variable is WE1, with a mean score of 3.778. This item reflects the observation of employees bursting with energy at work, indicating a strong level of perceived engagement and enthusiasm among the workforces. Following closely, the second-ranked item, "The employees take pride in the work they accomplish," achieved a mean score of 3.717, highlighting the importance of intrinsic motivation and satisfaction derived from work accomplishments in fostering employee engagement.

Furthermore, the third item in the ranking, "Our employees are strong and vigorous in their roles," attained a mean score of 3.712, reinforcing the notion of employees' robust engagement and commitment to their responsibilities within the university setting. Similarly, the fourth-ranked item, "Sometimes, they seem to get carried away when working," achieved a mean score of 3.684, indicating occasional instances of employees becoming deeply absorbed in their work tasks, which is indicative of high levels of engagement.

Continuing down the ranking, the fifth to seventh scales encompass items such as "In the mornings, employees are eager to come to work," "Employees exhibit enthusiasm for their tasks," and "The work in our university inspires the employees," achieving mean scores of 3.656, 3.609, and 3.609, respectively. These items underscore the importance of a stimulating work environment and meaningful tasks in fostering employee enthusiasm and engagement.

Finally, the last two items in the variable, "I notice happiness in their demeanor when they are deeply engaged in their tasks," and "The employees are fully immersed in their work," achieved mean scores of 3.576 and 3.462, respectively. These items further highlight the psychological aspects of engagement, including happiness and immersion in work tasks, which contribute to overall employee engagement levels.

Table 2: The Mean and Std. Deviation of Staff Engagement Indicators

Code	Items	Mean	Std. Deviation
WE1	I observe that employees are bursting with energy at work.	3.7783	1.04083
WE2	Our employees are strong and vigorous in their roles.	3.7123	.99155
WE3	In the mornings, employees are eager to come to work.	3.6557	.96837
WE4	Employees exhibit enthusiasm for their tasks.	3.6085	.89893
WE5	The work in our university inspires the employees.	3.6085	.96994
WE6	The employees take pride in the work they accomplish.	3.7170	.99052
WE7	I notice happiness in their demeanour when they are deeply engaged in their tasks.	3.5755	.99713
WE8	The employees are fully immersed in their work.	3.4623	1.06361
WE9	Sometimes, they seem to get carried away when working.	3.6840	.95348

Table 3 presents a comprehensive analysis of the organizational performance (OP) variable, delineating various dimensions that contribute to the overall performance of private universities in Malaysia. With 15 items, this variable aims to assess different aspects of OP as perceived by respondents, utilizing the Likert scale for evaluation.

The top-ranking item within the OP variable is OP4, with a mean score of 4.326. This item reflects respondents' perception that the quality of products or services offered by their institution has improved, indicating a positive impact on organizational performance. Following closely, the second-ranked item, "Improved employees' satisfaction," achieved a mean score of 4.311, highlighting the importance of employee satisfaction in driving overall organizational performance.

Moreover, the third and fourth items in the ranking, "Employee skills have improved" and "Improved new product/service development," attained identical mean scores of 4.302. These items underscore the significance of continuous improvement initiatives and innovation in enhancing organizational performance.

Continuing down the ranking, the fifth and sixth scales encompass items such as "Rapidly commercialize innovations" and "In my institution, the net benefit was increased," achieving mean scores of 4.288 and 4.236, respectively. These items emphasize the importance of SA and efficiency in capitalizing on opportunities and maximizing organizational benefits.

From the seventh to ninth scales in the ranking, items such as "In my institution, added economic value services/products improved," "Sales growth in my institution was improved," and "Introduced innovative goods and services within our organization" achieved identical mean scores of 4.222. These items underscore the importance of value addition, sales growth, and innovation in driving organizational performance.

Finally, the last three items in the variable, "Increase customer satisfaction," "Improve market share growth," and "Keep current customers," achieved mean scores of 4.208, 4.198, and 4.170, respectively. These items highlight the importance of customer-centric strategies in enhancing OP and competitiveness.

Table 3: The Mean and Std. Deviation of Organizational Performance Indicators

Code	Items	Mean	Std. Deviation
OP1	In my institution, the net benefit was increased	4.2358	.85489
OP2	In my institution, added economic value services/products improved	4.2217	.90439
OP3	Sales growth in my institution improved	4.2217	.90961
OP4	Our product and service quality have improved.	4.3255	.87228
OP5	Introduced innovative goods and services within our organization.	4.2217	.90961
OP6	Rapidly commercialize innovations	4.2877	.81876
OP7	Improve market share growth	4.1981	.92792
OP8	Increase customer satisfaction	4.2075	1.01847
OP9	Keep current customers	4.1698	.86503
OP10	Employee skills have improved	4.3019	.89411
OP11	Improved employees' satisfaction	4.3113	.94255
OP12	Improved new product/ service development	4.3019	.88344

Measuring the Reliability of an Item

In assessing the measurement model in this study, it is crucial to evaluate the reliability of individual items, commonly referred to as outer loading, for each construct (Becker et al., 2023; Hair et al., 2021, 2022; Ringle et al., 2020). Outer loading refers to the strength of the relationship between each item and its corresponding construct. To meet the required criteria, an item must have an outer loading value higher than 0.708. This threshold is determined based on ensuring that the average variance extracted (AVE) exceeds 0.50, indicating that the items effectively capture the variance in their respective constructs (Hair et al., 2019).

According to Hair et al. (2019), exterior loading values ranging from 0.40 to 0.70 are generally regarded as satisfactory, provided they enable an AVE value to exceed 0.50. Establishing this range ensures that the items accurately reflect their fundamental constructs while minimizing the introduction of undue measurement error. Therefore, it is necessary for an outer loading to contribute to attaining a sufficient AVE value, even though a value below 0.708 may be deemed acceptable within this range. In this investigation, all items were retained for analysis as their loadings contributed to an Average Variance Extracted (AVE) value above 0.50, meeting the established criterion (See Table 4) This decision indicates that each item effectively captures variance in its respective construct, thereby ensuring the reliability and validity of the measurement model.

This thorough examination of outer loading values and their contribution to the AVE assures the robustness of the measurement model used in the study. It underscores the importance of individual item reliability in ensuring the accuracy of construct measurement, thereby enhancing the overall quality of the research findings. By adhering to established criteria and guidelines, researchers can confidently interpret and analyze the relationships between constructs in their studies, ultimately advancing knowledge in their respective fields.

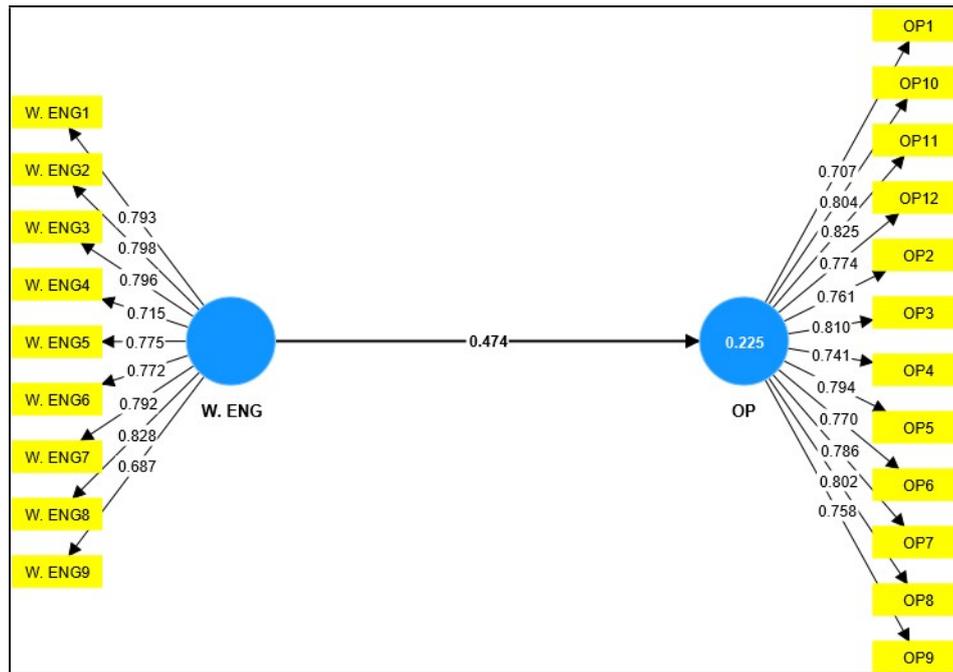


Figure 1

Table 4: The Results of Outer Loading, Composite Reliability, Cronbach's alpha, and Average Variance Extracted

Model Construct	Item	Outer Loadings	Cronbach's alpha (α)	Composite Reliability (CR)	Average Variance Extracted (AVE)
Staff Engagement (SE)	SE1	0.793	0.941	0.943	0.606
	SE2	0.798			
	SE3	0.796			
	SE4	0.715			
	SE5	0.775			
	SE6	0.772			
	SE7	0.792			
	SE8	0.828			
	SE9	0.687			
Organizational Performance (OP)	OP1	0.707	0.916	0.924	0.599
	OP2	0.761			
	OP3	0.810			
	OP4	0.741			
	OP5	0.794			
	OP6	0.770			
	OP7	0.786			
	OP8	0.802			
	OP9	0.758			
	OP10	0.804			
	OP11	0.825			
	OP12	0.774			

An alternative methodology for evaluating discriminant validity is the Fornell-Larcker criterion, developed by Fornell and Larcker (1981). To apply this criterion, the average variance extracted (AVE) of each construct is compared to the squared correlations between construct pairings, as suggested by Fornell and Larcker (1981). The square root of the Average Variance Extracted (AVE) ought to exceed the correlations observed among the various components, according to the research of Hair et al. (2022). The AVE values, spanning from 0.553 to 0.606, are presented in Table 4. The component

correlations are all surpassed by each of these values. Discriminant validity confirmation is achieved according to the Fornell-Larcker criterion (Ringle et al., 2023).

Multicollinearity Test

To detect multicollinearity, this research employed “the tolerance value and variance inflation factor (VIF) method,” widely recognized and utilized by researchers, Jandab et al. (2019); Purwanto (2021); Ringle et al. (2023); Sarstedt et al. (2022) suggested threshold values of 0.20 for tolerance and 5.00 for VIF. Tolerance values above 0.20 and VIF values below 5.00 indicate the absence of multicollinearity.

The results presented in Table 5 demonstrate no evidence of multicollinearity, as indicated by tolerance values of 1.000 and VIF values of 1.000. Consequently, it can be assumed that multicollinearity is not a concern among the independent factors in this study.

Table 5: The Results of Multicollinearity

Variables		Collinearity Statistics	
		Tolerance	VIF
Staff Engagement	Organizational Performance	1.000	1.000

Correlation Analysis

The present investigation employed correlation analysis to examine the relationships between various variables. The statistical correlation analysis technique is employed to ascertain the magnitude and orientation of the association between two variables (Field, 2024). It helps researchers understand the relationship between variations in one variable and another. This relationship is measured by the correlation coefficient, which ranges from +1 to -1. A coefficient of ± 1 signifies an association of flawless strength, whereas a coefficient approaching zero implies a relationship of lesser strength. Additionally, the direction of the relationship is denoted by the sign of the coefficient; a positive sign indicates a positive correlation, while a negative sign suggests a negative association (Obilor & Amadi, 2018).

Various methods are available for correlation analysis, including Pearson's, Spearman's, Kendall's rank, and point-biserial correlation (Sedgwick, 2012; Zhi et al., 2017).

Among these methods, the Pearson correlation coefficient is widely utilized because it evaluates the relationship between continuous variables. It calculates the covariance between variables, providing valuable insights into the strength and direction of the correlation. By employing the Pearson coefficient, researchers can examine the correlation between the variable of interest and other relevant variables (Obilor & Amadi, 2018). This study employs the Pearson correlation coefficient to examine the relationship between staff engagement and organizational performance.

Table 6: The Results of Bivariate Correlation Analysis (Pearson)

Variable		WE	OP
SE	Pearson Correlation	1	.465**
	Sig. (2-tailed)		.000
	N	212	212
OP	Pearson Correlation	.465**	1
	Sig. (2-tailed)	.000	
	N	212	212

** . Correlation is significant at the 0.01 level (2-tailed), **WE**: Work engagement, **OP**: Organizational Performance.

Table 6 presents the results of the correlation analysis conducted in this study. The findings indicate that the correlation coefficient is less than 0.7, suggesting a high level of correlation between the variables. Measuring the Reliability of an Item

Table 7: The Results of the Fornell-Larcker Method

Construct	Organizational Performance	Staff Engagement
Organizational Performance	0.778	
Staff Engagement	0.474	0.774

Another method for assessing discriminant validity involves examining the Heterotrait-Monotrait (HTMT) correlation ratio, as proposed by Henseler, Ringle, and Sarstedt (2015). According to Abdulsamad et al. (2021), A. M. Al-Sharif et al. (2023), Al-Zubaidi et al. (2022), and McDonald and Ho (2002), the HTMT value should not exceed 1.0 to establish discriminant validity. This ratio is calculated by comparing the correlations between constructs that represent different traits (Heterotrait) to those between constructs that represent the same trait (Monotrait). If the HTMT value is less than 1.0, constructs are more strongly correlated with their respective traits than with other traits, supporting discriminant validity.

Table 8: The Results of Heterotrait-Monotrait Ratio (HTMT) Method

	Organizational Performance	Staff Engagement
Organizational Performance		
Staff Engagement	0.498	

The results presented in Table 8 illustrates the outcomes of the “HTMT analysis”, wherein all values of the “Heterotrait-Monotrait criterion do not exceed 1.0. Additionally, the correlations among the constructs are observed to be less than 1.0, indicating their distinctiveness from one another. Consequently, the discriminant validity of the constructs has been firmly established. In conclusion, the outcomes from “the three tests-cross-loading comparison, Fornell-Larcker criterion, and “HTMT analysis”-collectively demonstrate that the model of measurement fulfills the criteria for “discriminant validity” of constructs.

Assessing the Structural Model (Direct Impact)

The analysis of the structural model, focusing on direct effects, was carried out to address the questions of the study and evaluate hypotheses 1 (H1), as delineated below:

Staff Engagement (WE) has a positive impact on Organizational Performance(OP)in Malaysian private universities.

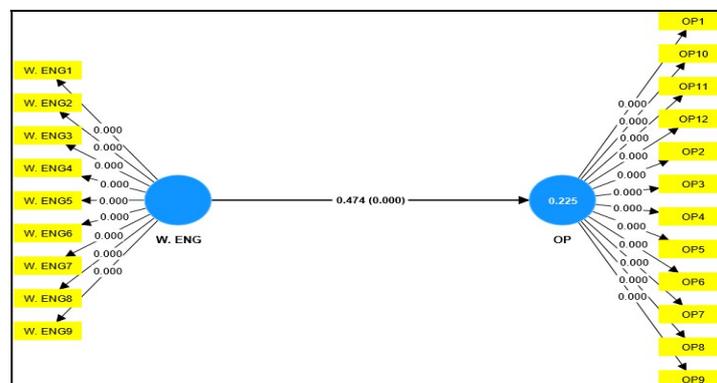


Figure 2: Path Model Significance Results

Table9 presents the analysis findings on the path coefficient of the structural model, explicitly focusing on the direct influence.

The current research adopts the recommendation proposed by Hair et al. (2017), which stipulates that a “p-value less than 0.05 ($p < 0.05$, corresponding to a 95% Confidence Interval) and a t-value exceeding 1.96 ($t > 1.96$ for two tail)” indicate the presence of a significant direct relationship between variables examined in the study.

Table 9: Hypothesis Evaluation Results

NO. H	H. Direct effect	Path Coefficient	S-Deviation	T-V	P-V	Results
H1	SE -> OP	0.474	0.063	7.571	0.000***	Supported

Note: **Significant at 0.05 (two-tailed), *** Significant at 0.01 (two-tailed)

Staff Engagement (WE) is supported by the analysis results ($\beta = 0.474$, $t = 7.571$, $p < 0.01$), indicating a significant positive relationship between WE and the performance of private universities (OP) in Malaysia.

Assessing R Square (R^2)

Various criteria exist for interpreting R^2 values, and the acceptability threshold depends on the study context and complexity of the model (Ringle et al., 2023). Falk and Miller (1992), for example, proposed a minimum acceptable R^2 value of 0.10, while Chin (1998) categorized R^2 values of 0.67, 0.33, and 0.19 as representing substantial, moderate, and weak relationships, respectively. Cohen (1988) suggested R^2 values of 0.26, 0.13, and 0.02 to denote substantial, moderate, and weak relationships in PLS-SEM. Additionally, J. F. Hair Jr et al. (2022) recommended R^2 values of 0.75, 0.50, or 0.25 for endogenous latent variables in the structural model to be considered as substantial, moderate, or weak, respectively.

Table 10: Assessing R-Squared in the Endogenous Variable

Independent Variables (endogenous)	R^2	Assessment		
		Cohen (1988)	Chin (1998)	Hair et al. (2022)
Organizational Performance (OP)	0.225	Moderate	Weak	Weak

According to the data showcased in Table 10, the values of R^2 about the independent factors, namely the performance of private universities (OP) and WE, signify that the model of study elucidates 22.5%, within private universities. Thus, within the scope of this study, the values of R^2 for these independent factors align with the acceptable benchmarks delineated by Falk and Miller (1992), as well as falling within the weak and moderate ranges as delineated by Chin (1998); Hair et al. (2022), and the moderate and substantial ranges as outlined by Cohen (1988).

Assessing Effect Size (F^2)

According to Abdulsamad et al. (2020), Jandab et al. (2019), and Ringle et al. (2023), the effect size f^2 serves to evaluate the extent to which a specific independent variable (s) influences a dependent variable (s) by measuring the change in R^2 if the exogenous construct is removed from the model. In essence, f^2 quantifies the strength of an exogenous construct's impact on an endogenous construct in terms of R^2 . The rule of thumb for interpreting effect size proposed by Cohen (1988) suggests values of “0.35 for substantial effect, 0.15 for medium effect, and 0.02 for small effect.” Table Presents the outcomes of the f^2 of independent factors on dependent factors.

Table 11: The Results of f^2 of Independent Factors

Variables		Effect Size	Effect
Independent	Dependents		
Staff Engagement	Organizational Performance	0.290	medium

According to the results presented in Table 4 18 It is observed that WE has a medium effect on the performance of private universities (OP) in Malaysia, with an effect size of 0.290.

Goodness of Fit of the Model (GOF)

According to Tenenhaus et al. (2005), the Goodness of Fit (GOF) is a comprehensive metric that indicates the degree to which a structural model fits globally. The value is determined by averaging the R^2 values of the endogenous variables and the average variances extracted (AVE), which are integral components of the geometric mean. By providing insights into the overall adequacy of the model, this metric aims to evaluate the study model at both conceptual and measurement levels.

The determined GOF value, as shown in Table 12, is 0.368 within the framework of the research document. The significance of this finding lies in its ability to inform researchers about the overall performance of their structural model, highlighting areas of strength and areas that may require further refinement.

Table 12: Goodness of Fit of The Model (GOF)

Variables	R Square	AVE
Organizational Performance	0.225	0.599
Staff Engagement		0.606
The Average	0.225	0.6025
GOF	0.368	

It is worth noting that Henseler et al. (2015) have established criteria for interpreting GOF values, distinguishing between small, medium, and large values to determine the extent to which a Partial Least Squares (PLS) model can be considered globally valid. These criteria serve as benchmarks for evaluating the model's fit and its potential applicability in representing real-world phenomena.

The GOF calculation formula involves taking the geometric mean of the AVE and the average R^2 values of the endogenous variables. This formula encapsulates both the measurement quality, represented by the AVE, and the model's explanatory power, as indicated by the R^2 values. By considering these two components together, researchers gain a holistic understanding of the model's fit and ability to accurately represent the underlying theoretical constructs (Hair et al., 2019).

DISCUSSION

There are multiple underlying reasons for the favourable impacts of highly engaged employees on their work performance in private higher education institutions. Firstly, employee engagement represents a comprehensive understanding of how employees relate to their job duties (Yalabik et al., 2017). Employee engagement in private higher education, associated with lower absenteeism, accidents, and a lower staff turnover rate, has a positive impact on both employee and organisational performance (Ahmed et al., 2022). Secondly, we have observed that these employees exhibited a high level of commitment to their jobs, resulting in increased productivity and effectiveness. As a consequence, it directly led to improved academic and administrative processes, resulting in enhanced performance, including the on-time and error-free completion of workload, quality teaching, and efficient administrative support.

Another possible reason for the positive effect of staff engagement on organizational performance in private higher education institutions is that work involvement fosters a positive workplace environment, characterized by increased morale, teamwork, and collaboration (Bailey et al., 2022). Employees who are actively involved and committed to their work are more willing to provide mutual assistance, share knowledge, and contribute innovative ideas, thereby improving the organization's overall efficiency (Ahmed et al., 2022). The cooperative environment fosters problem-solving, decision-making, and adaptation, crucial for achieving organizational success in a dynamic higher education landscape.

However, the result of the current study is consistent with the previous studies that examined the association between staff engagement and organizational performance such as Bano, Khatun, and Kumar (2024) found that communication and work-life balance were significant factors in fostering employee engagement in the banking sector in Hyderabad, ultimately positively impacting organizational performance. The current result aligns with that of Ahmed et al. (2020). Their results indicate a positive and significant impact of employee engagement and knowledge sharing on organizational performance, with knowledge sharing fully mediating the relationship between employee engagement and performance. In addition, the results of the current study are consistent with those of Juevesa and Castino (2020), who found a positive relationship between employee engagement and organizational performance across all generations within a private, non-sectarian school. Cheche et al. (2019) found that employee engagement has a significant impact on the organizational performance of research and training state corporations in Kenya, which is influenced by age, education, and tenure.

However, the current finding of a positive effect of staff engagement on organizational performance is consistent with previous studies in the higher education sector, such as Ahuja and Gupta (2019). Their results revealed a direct relationship between staff engagement and organizational commitment, facilitating the sustainability of higher education professionals. Extended lengths of employment can be achieved by connecting the organization's focus on desired results with employees' personal and professional preferences. The study concluded that higher education institutions should develop new techniques to align these orientations, which will promote faculty retention and maximize their job engagement. The current finding aligns with Anyalor, Nwali, and Agbionu (2018), who found that staff engagement has a positive effect on lecturers in higher education institutions in Nigeria. The current result is also consistent with Abdelwahed and Doghan (2023), who found that staff engagement has a positive and significant effect on productivity in educational societies.

CONCLUSION

Research has shown that one of the most critical factors determining an organization's performance is employee engagement. When people are engaged in their work, they are more likely to demonstrate higher productivity, creativity, and a more profound commitment to the organization's goals. This results in a reduction in the costs associated with employee turnover, as they are more likely to remain with the organization over the long term. In light of this, enterprises need to create a work environment that fosters employee involvement, thereby enhancing the firm's performance.

REFERENCES

1. Abdelwahed, N. A. A., & Doghan, M. A. A. (2023). Developing employee productivity and performance through work engagement and organizational factors in an educational society. *Societies*, 13(3), 65.
2. Abdulsamad, A., Ali, N. A., Mahomed, A. S. B., Hashim, H., Jandab, A., & Al-Sharif, A. M. (2020). The Importance of Entrepreneurial Orientation's Dimensions in Influencing the Organizational Performance of Food and Beverage SMEs. *Advances in Social Sciences Research Journal*, 7(12).
3. Abdulsamad, A., Ali, N., Hashim, H., Shah, A., Jandab, A., Hamdan, A., (2021). The Impact of Market Orientation Components on Organizational Performance of SMEs. The single-industry approach is the "Food and Beverage Sector". *Advances in Social Sciences Research Journal*, 8, 504-516. doi: <http://dx.doi.org/10.14738/assrj.85.10231>
4. Abu-Mahfouz, S., Halim, M. S. A., Bahkia, A. S., Alias, N., & Tambi, A. M. (2023). Sustainable human resource management practices in organizational performance: The mediating impacts of knowledge management and work engagement.
5. Ahmed, U., Yong, I. S. C., Pahi, M. H., & Dakhan, S. A. (2022). Does meaningful work encompass support for supervisory, worker, and engagement relationships? *International Journal of Productivity and Performance Management*, 71(8), 3704-3723.
6. Ahuja, S., & Gupta, S. (2019). Organizational commitment and work engagement as a facilitator for sustaining higher education professionals. *International Journal of Recent Technology and Engineering*, 7(6), 1846-1851.
7. Al-Sharif, A. M., Ali, M. H., Jaharuddin, N. S., Abdulsamad, A., & Jandab, A. (2023). The Role of Innovation Capability in the Relationship between Entrepreneurial Leadership and Innovation Performance in the SMEs Service Industry. *Advances in Social Sciences Research Journal*, 10(1). doi:10.14738/assrj.101.13802
8. Al-Sharif, A., Ali, M., Jaharuddin, N., & Abdulsamad, A. (2023). Effects of Innovation Capability and Environmental Dynamism on the Relationship between Entrepreneurial Leadership and Innovation Performance in the SMEs Service Industry. *International Journal of Academic Research in Business and Social Sciences*, 13, 1547-1570. doi:10.6007/IJARBSS/v13-i10/19011
9. Al-Zubaidi, R., Ariffin, K., Abdulsamad, A., Raqee, A., Ismail, I., & Ahmad, K. (2022). The Effect of Self-efficacy on Sustainable Development: The PetroMasila in Yemen. *Advances in Social Sciences Research Journal*, 9, 35-49. doi:10.14738/assrj.912.13555
10. Anyalor, M., Nwali, A. C., & Agbionu, U. C. (2018). Employee engagement and performance of lecturers in Nigerian tertiary institutions. *Journal of Education and Entrepreneurship*, 5(2), 69-87.
11. Arif, T. B., Munaf, U., & Ul-Haque, I. (2023). The future of medical education and research: Is ChatGPT a blessing or blight in disguise?. *Medical education online*, 28(1), 2181052.
12. Bailey, C. (2022). Employee engagement: do practitioners care what academics have to say—and should they?. *Human Resource Management Review*, 32(1), 100589.

13. Bano, A., Khatun, A., & Kumar, D. (2024). *Examining Drivers Of Engagement And Employee Engagement In Relation To Organizational Performance-A Study Of Banking Sector In Hyderabad City*. Bano, A., Khatun, A., & Kumar, D.(2024). *Examining Drivers Of Engagement And Employee Engagement In Relation To Organizational Performance-A Study Of Banking Sector In Hyderabad City*. *Migration Letters*, 21, 1067-1081.
14. Baum, L. (2009). *Judges and their audiences: A perspective on judicial behavior*. Princeton University Press.
15. Becker, J.-M., Cheah, J.-H., Gholamzade, R., Ringle, C. M., & Sarstedt, M. (2023). *PLS-SEM's most wanted guidance*. *International Journal of Contemporary Hospitality Management*, 35(1), 321-346. doi:10.1108/IJCHM-04-2022-0474
16. Brynjolfson, E. (1993). *The productivity paradox of information technology*. *Communications of the ACM*, 36(12), 67-77.
17. Carton, R. B. (2004). *Measuring organizational performance: An exploratory study*.
18. Chan, J. I. L., & Muthuveloo, R. (2022). *Strategic agility: linking people and organisational performance of private higher learning institutions in Malaysia*. *International Journal of Business and Society*, 23(1), 342-358. doi:10.33736/ijbs.4616.2022
19. Cheche, S. G., Muathe, S. M., & Maina, S. M. (2019). *Employee engagement, demographic characteristics and performance of state research and training corporations in Kenya*. *IUP Journal of Organizational Behavior*, 18(1), 55-70.
20. Chin, W. W. (1998). *The partial least squares approach to structural equation modeling*. *Modern methods for business research*, 295(2), 295-336.
21. Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd ed ed.)*. United States of America: Lawrence Erlbaum Associates
22. Day, G. S., & Wensley, R. (1988). *Assessing advantage: a framework for diagnosing competitive superiority*. *Journal of marketing*, 52(2), 1-20.
23. Douwe P. Flapper, S., Fortuin, L., & Stoop, P. P. (1996). *Towards consistent performance management systems*. *International journal of operations & production management*, 16(7), 27-37.
24. Falk, R. F., & Miller, N. B. (1992). *A primer for soft modeling*: University of Akron Press.
25. Field, A. (2024). *Discovering statistics using IBM SPSS Statistics*: SAGE Publications Limited.
26. Fornell, C., & Larcker, D. F. (1981). *Evaluating structural equation models with unobservable variables and measurement error*. *Journal of Marketing Research*, 18(1), 39-50. doi:https://doi.org/10.1177/002224378101800104
27. Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (Third Edition ed.)*. Thousand Oaks, California: Sage publications.
28. Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook (p. 197)*. Springer Nature.

29. Hair, J. F., Ringle, C. M., Gudergan, S. P., Fischer, A., Nitzl, C., & Menictas, C. (2019). Partial least squares structural equation modeling-based discrete choice modeling: an illustration in modeling retailer choice. *Business Research*, 12(1), 115-142.
30. Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. doi:10.1108/EBR-11-2018-0203
31. Hair, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling: saGe publications*.
32. Hair, J., & Alamer, A. (2022). *Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example*. *Research Methods in Applied Linguistics*, 1(3), 100027
33. Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial Management & Data Systems*, 117(3), 442-458. doi:10.1108/IMDS-04-2016-0130
34. Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135. doi:https://doi.org/10.1007/s11747-014-0403-8
35. Hillman, A. J., & Keim, G. D. (2001). Shareholder value, stakeholder management, and social issues: what's the bottom line?. *Strategic management journal*, 22(2), 125-139.
36. Ho, W. (2008). Integrated analytic hierarchy process and its applications—A literature review. *European Journal of operational research*, 186(1), 211-228.
37. Jandab, A., Ali, N. A., Abdulsamad, A., & Al-Sharif, A. M. (2019). IT-Based Innovation and New Product Development Performance in Yemen: The Moderating Role of Intellectual Property. *International Journal of Business Society*, 3(11), 1-8. doi:https://doi.org/10.30566/ijo-bs-2019-11-1
38. Jaya, L. H. S., & Ariyanto, E. (2021). The effect of vigor, dedication and absorption on the employee performance of PT Garuda Indonesia Cargo. *European Journal of Business and Management Research*, 6(4), 311-316.
39. Jon, M.N & Randy, L.D (2009). *Human Resource Development*. South –Western Cengage Learning.
40. Juevesa, R. D., Juevesa, C. V., & Castino, J. M. P. (2020). Employee engagement, commitment, satisfaction and organizational performance among multigenerational workforce. *International Journal of Research in Engineering, Science and Management*, 3(7), 36-40.
41. Jurison, J. (1996). Toward more effective management of information technology benefits. *The Journal of Strategic Information Systems*, 5(4), 263-274.
42. Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.
43. Kahn, W. A. (1992). To be fully there: Psychological presence at work. *Human relations*, 45(4), 321-349.

44. Kaplan, R. S., & Norton, D. P. (1996). *Using the balanced scorecard as a strategic management system*.
45. Karafakioglu, E., & Afacan Findikli, M. (2024). *The Mediating Role of Work Engagement in the Relationship Between Digital Leadership and Innovative Behavior and Organizational Agility*. *International Journal of Organizational Leadership*, 13(1), 1-21.
46. Katou, A. A. (2008). *Measuring the impact of HRM on organizational performance*. *Journal of Industrial Engineering and Management (JIEM)*, 1(2), 119-142.
47. Khaw, T. Y., & Teoh, A. P. (2023). *The influence of big data analytics technological capabilities and strategic agility on performance of private higher education institutions*. *Journal of Applied Research in Higher Education*, 15(5), 1587-1599. doi:10.1108/JARHE-07-2022-0220
48. Kumar, N., Scheer, L., & Kotler, P. (2000). *From market driven to market driving*. *European management journal*, 18(2), 129-142.
49. Laitinen, E. K. (2002). *A dynamic performance measurement system: evidence from small Finnish technology companies*. *Scandinavian journal of management*, 18(1), 65-99.
50. Maslach, C., & Jackson, S. E. (1981). *The measurement of experienced burnout*. *Journal of organizational behavior*, 2(2), 99-113.
51. Maslach, C., & Leiter, M. P. (1997). *The truth about burnout*. San Francisco, CA, USA: Jossey-Bass.
52. Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). *Job burnout*. *Annual review of psychology*, 52(1), 397-422.
53. McDonald, R. P., & Ho, M.-H. R. (2002). *Principles and practice in reporting structural equation analyses*. *Psychological methods*, 7(1), 64-82. doi:10.1037/1082-989X.7.1.64
54. Narver, J. C., Slater, S. F., & Tietje, B. (1998). *Creating a market orientation*. *Journal of market-focused management*, 2, 241-255.
55. Noble, C. H., Sinha, R. K., & Kumar, A. (2002). *Market orientation and alternative strategic orientations: A longitudinal assessment of performance implications*. *Journal of marketing*, 66(4), 25-39.
56. Obilor, E. I., & Amadi, E. C. (2018). *Test for significance of Pearson's correlation coefficient*. *International Journal of Innovative Mathematics, Statistics & Energy Policies*, 6(1), 11-23.
57. Paul, A. K., & Anantharaman, R. N. (2003). *Impact of people management practices on organizational performance: analysis of a causal model*. *The International Journal of Human Resource Management*, 14(7), 1246-1266.
58. Purwanto, A. (2021). *Partial least squares structural equation modeling (PLS-SEM) analysis for social and management research: a literature review*. *Journal of Industrial Engineering & Management Research*.
59. Richard, D., Clanet, C., & Quéré, D. (2002). *Contact time of a bouncing drop*. *Nature*, 417(6891), 811-811.
60. Ringle, C. M., Sarstedt, M., Mitchell, R., & Gudergan, S. P. (2020). *Partial least squares structural equation modeling in HRM research*. *The international journal of human resource management*, 31(12), 1617-1643.

61. Ringle, C. M., Sarstedt, M., Sinkovics, N., & Sinkovics, R. R. (2023). A perspective on using partial least squares structural equation modelling in data articles. *Data in Brief*, 48, 109074. doi:<https://doi.org/10.1016/j.dib.2023.109074>
62. Sarstedt, M., Hair, J. F., Pick, M., Liengaard, B. D., Radomir, L., & Ringle, C. M. (2022). Progress in partial least squares structural equation modeling use in marketing research in the last decade. *Psychology & Marketing*, 39(5), 1035-1064.
63. Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students (8th ed.)*.
64. Schaufeli, W. B., Salanova, M., González-Romá, V., & Bakker, A. B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness studies*, 3, 71-92.
65. Sedgwick, P. (2012). Pearson's correlation coefficient. *Bmj*, 345. doi:10.1136/bmj.e4483
66. Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. John Wiley & Sons.
67. Tenenhaus, M., Vinzi, V. E., Chatelin, Y.-M., & Lauro, C. (2005). PLS path modeling. *Computational statistics & data analysis*, 48(1), 159-205.
68. Thomas, K. W. (2009). *Intrinsic motivation at work: Building energy and commitment*. Berrett Koehler Publishers
69. Yalabik, Z. Y., Rayton, B. A., & Rapti, A. (2017, December). Facets of job satisfaction and work engagement. In *Evidence-based HRM: a global forum for empirical scholarship (Vol. 5, No. 3, pp. 248-265)*. Emerald Publishing Limited.
70. Zhi, X., Yuexin, S., Jin, M., Lujie, Z., & Zijian, D. (2017, 20-22 Oct. 2017). Research on the Pearson correlation coefficient evaluation method of analog signal in the process of unit peak load regulation. Paper presented at the 2017 13th IEEE.

