

The Effect of Training, Competence and Motivation on Employee Productivity with Work Engagement as an Intervening Variable

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ABSTRAK

Penelitian ini bertujuan untuk menganalisis pengaruh exercise, competition, dan motivation terhadap work engagement dan employee performance, dengan work engagement sebagai variabel mediasi pada pegawai Dinas Kesehatan Kota Pangkal Pinang. Metode penelitian yang digunakan adalah kuantitatif dengan pendekatan Structural Equation Modeling-Partial Least Squares (SEM-PLS), melibatkan 112 responden yang dipilih secara purposive. Hasil analisis menunjukkan bahwa secara spesifik, competition merupakan faktor yang paling berpengaruh signifikan terhadap work engagement dan employee performance, diikuti oleh motivation dengan pengaruh sedang, sedangkan exercise menunjukkan pengaruh paling kecil. Work engagement terbukti memediasi sebagian hubungan antara motivation dan competition terhadap employee performance. Temuan ini menegaskan pentingnya strategi pengembangan sumber daya manusia yang tidak hanya berfokus pada pelatihan, tetapi juga pada penciptaan lingkungan kompetitif yang sehat, peningkatan motivasi, serta penguatan keterlibatan kerja guna mendorong kinerja pegawai secara optimal. Penelitian ini merekomendasikan perlunya pengembangan program organisasi yang terintegrasi untuk meningkatkan engagement dan performa pegawai, serta penelitian lanjutan dengan memperluas variabel dan metode yang digunakan.

Keyword: Pelatihan; Kompetisi; Motivasi; Keterlibatan Kerja; Kinerja Karyawan

ABSTRACT

This study aims to analyse the effect of exercise, competition, and motivation on work engagement and employee performance, with work engagement as a mediating variable in employees of the Pangkal Pinang City Health Office. The research method used is quantitative with the Structural Equation Modelling-Partial Least Squares (SEM-PLS) approach, involving 112 purposively selected respondents. The analysis results show that specifically, competition is the factor that has the most significant effect on work engagement and employee performance, followed by motivation with a moderate effect, while exercise shows the least effect. Work engagement was shown to partially mediate the relationship between motivation and competition on employee performance. These findings confirm the importance of human resource development strategies that not only focus on training but also on creating a healthy competitive environment, increasing motivation, and strengthening work engagement to encourage optimal employee performance. This study recommends the need to develop an integrated organisational programme to improve employee engagement and performance, as well as further research by expanding the variables and methods used.

Keyword: Training; Competition; Motivation; Work Engagement; Employee Performance

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1. INTRODUCTION

Human resource development (HRD) has become the main foundation in efforts to improve organisational performance, both in the public and private sectors. In the era of global competition and increasingly high demands for public services, organisations are required to continue to innovate in managing

and developing human resources to be able to face the changing dynamics of the work environment. The Pangkal Pinang City Health Office, as a public institution that plays a direct role in public health services, relies heavily on the quality of its human resources to ensure the achievement of the organisation's strategic goals.

One of the main indicators of the success of public organisations is employee productivity. Productivity reflects not only work output, but also quality, efficiency, and effectiveness in task execution. A study by Robbins and Judge (2019) confirmed that employee productivity is influenced by a variety of factors, ranging from individual skills, work environment, to managerial support. In the context of the Pangkal Pinang City Health Office, increasing productivity is a top priority as an effort to improve the quality of health services provided to the community.

Empirical data shows that employee productivity at the Pangkal Pinang City Health Office has fluctuated, as reflected in the 2023 annual report. Key performance indicators, such as the number of health services, the speed of response to public complaints, and the level of patient satisfaction, show significant improvement. However, this achievement is inseparable from internal challenges, especially related to the optimisation of training, competency development, and employee motivation.

Training is one of the strategic instruments in HR development that aims to improve employees' knowledge, skills, and attitudes in order to adapt to increasingly complex work demands. According to Noe (2017), structured and relevant training can have a positive impact on individual and organisational performance. However, the effectiveness of training is strongly influenced by the relevance of the material, delivery methods, and the ability of participants to implement the training results in the work environment.

Although training has been routinely carried out at the Pangkal Pinang City Health Office, the results of pre-research interviews show that some employees have not been able to fully apply the training material optimally. This indicates a gap between training inputs and employee performance outputs, which can have an impact on the effectiveness of public services. As stated by Siswadi (2017), ineffective training can cause employees to have difficulty adapting to changes, thus reducing morale and productivity. Based on employee productivity data at the Pangkal Pinang City Health Office, there are significant fluctuations in employee performance. Based on the annual report of the Health Office, in 2023, employee productivity is measured through key performance indicators (KPIs) that include the number of health services provided, response time to public complaints, and patient satisfaction levels. In 2023, the Health Office recorded a 15% increase in the number of health services compared to the previous year, with a total of 150,000 services provided to the community. The average response time to public complaints also improved, from 48 hours in 2022 to 36 hours in 2023, demonstrating increased efficiency in handling issues. Patient Satisfaction Level: The patient satisfaction survey showed that 85% of patients were satisfied with the services provided, up from 78% in 2022. This shows that increased employee productivity contributes to improved service quality.

In addition to training, employee competence is a crucial factor in determining the success of task implementation. Competence includes aspects of knowledge, skills and attitudes required to achieve optimal performance (Spencer & Spencer, 1993). Employees with a high level of competence tend to be more adaptive, innovative, and able to complete tasks with better quality. However, initial observations at the Pangkal Pinang City Health Office show that there are still employees who have not been able to apply the competencies obtained through training into daily work practices, thus hindering the achievement of maximum productivity.

Work motivation is also a determinant factor in improving employee productivity. Motivation, both intrinsic and extrinsic, encourages employees to commit, work hard, and achieve organisational targets (Deci & Ryan, 1985; Robbins & Judge, 2017). However, pre-research findings indicate a decline in motivation among employees of the Pangkal Pinang City Health Office, characterised by a lack of appreciation, incentives, and a less supportive work environment. This condition has the potential to reduce work engagement and negatively impact productivity.

Work engagement is a psychological variable that has received increasing attention in HR management studies. Work engagement describes the level of enthusiasm, dedication, and absorption of employees in carrying out tasks (Schaufeli et al., 2020). Research shows that employees who have high work engagement tend to be more productive, innovative, and loyal to the organisation (Bakker & Albrecht, 2018). However, based on the results of pre-research interviews, there is still a low level of work engagement at the Pangkal Pinang City Health Office, which is triggered by the lack of two-way communication, lack of empowerment, and appreciation of employee initiatives.

Previous research, such as that conducted by Szilvassy and Širok (2022), confirms that work engagement acts as a significant mediator in the relationship between HR factors (training, competence, motivation) and productivity. Work engagement not only improves individual performance but also strengthens team cohesion and the overall quality of public services. Therefore, organisations need to manage "soft" factors such as leadership, communication, and work culture to create an environment that supports employee engagement.

Based on this background, this study aims to comprehensively analyse the effect of training, competence, and motivation on employee productivity, with work engagement as an intervening variable at the Pangkal Pinang City Health Office. This research is designed to identify the extent to which training, competence, and motivation can increase productivity directly or indirectly through increased employee work engagement. It is expected that the results of this study can make theoretical and practical contributions to the development of HR management strategies in the public sector. The resulting recommendations are expected to be a reference for the Pangkal Pinang City Health Office in designing more effective training programmes, competency development, and reward systems, to increase employee work engagement and productivity sustainably.

2. LITERATURE REVIEW

A. *Training and Employee Productivity*

Training is an important element in the development of human resources (HR), which aims to improve the knowledge, skills, and attitudes of employees to be able to carry out tasks effectively and efficiently. According to Noe (2017), training is a systematic process designed to change employee work behaviour through structured experiential learning. In the context of public organisations such as the Health Office, training is crucial given the dynamics and complexity of work that demands continuous updating of knowledge and skills.

The types of training relevant to the health sector range from technical training directly related to medical services to non-technical training such as service management, effective communication, and use of health information technology. Technical training usually focuses on improving clinical competence, the use of medical devices, and the implementation of standard operating procedures. Meanwhile, non-technical training is directed at improving employees' ability to interact with patients, manage administration, and adopt health service innovations.

Empirically, various studies have shown that training contributes significantly to improving employee productivity. A study by Nursyahputri & Saragih (2019) found that 78% of employees who participated in training reported an increase in work effectiveness and productivity. Another study by Gyanappa (2016) also revealed that structured training can improve employees' ability to complete daily tasks more efficiently and accurately. These findings strengthen the argument that investment in HR training is an important strategy in improving organisational performance.

However, the effectiveness of training is strongly influenced by several factors, including the relevance of training materials to work needs, the delivery methods used, and organisational commitment in supporting the implementation of training results in the workplace. Siswadi (2017) asserts that training that is not tailored to the real needs of employees tends not to have a significant impact on productivity. Therefore, evaluation of training needs and post-training follow-up are important aspects in ensuring the success of training programmes. Overall, effective training not only improves employees' knowledge and skills but can also motivate employees to work better. Thus, training plays a dual role, namely as a means of increasing competence as well as an effort to increase motivation and job satisfaction, which ultimately contributes to increasing employee productivity within the Health Office.

B. *Employee Competence and Its Impact on Productivity*

Employee competence is a set of knowledge, skills and behaviours that must be possessed by each individual to carry out their duties and responsibilities optimally. Spencer defines competence as a fundamental characteristic of a person that is associated with effective or superior performance in a job. Competence not only includes technical aspects, but also includes interpersonal, managerial and work ethic skills.

The competency dimension consists of three main aspects, namely knowledge, skills and attitude. Knowledge encompasses the theoretical and practical understanding required in the job, while skills refer to technical and procedural abilities applied in the performance of tasks. Attitude reflects value orientation, motivation and work ethics that influence how employees interact with the work environment and face job challenges. The importance of competence in supporting work productivity has been proven by various studies. Boyatzis asserted that employees with high competence tend to be able to complete work with better quality and be more adaptive to changes in the work environment. Research by Noe et al. (2017) also shows that competency development through continuous training contributes to increased work effectiveness and efficiency, especially in the public service sector.

Within the Health Office, employee competence is a key factor in maintaining the quality and safety of health services. Competent employees are not only able to carry out tasks professionally but can also provide solutions to problems that arise in the field. However, observations at the Pangkal Pinang City Health Office show that there is a gap between the competencies of employees and the demands of the job, which has an impact on the low productivity and effectiveness of services. Therefore, competency development through targeted training programmes, mentoring, and regular performance evaluations is needed. Organisations need

to ensure that every employee has access to competency development by job needs and technological developments. Thus, improving employee competence will have a direct impact on improving productivity and the quality of public services.

C. *Work Motivation and Its Relationship with Productivity*

Work motivation is an internal and external drive that influences employee behaviour, enthusiasm, and commitment in carrying out their duties. Robbins & Judge (2017) define motivation as a process that explains the intensity, direction, and persistence of a person in achieving organisational goals. Work motivation can stem from intrinsic factors, such as personal satisfaction, sense of responsibility, and self-development, as well as extrinsic factors, such as incentives, rewards, and a conducive work environment.

Classic motivation theories, such as Maslow's needs theory and Herzberg's two-factor theory, emphasise the importance of fulfilling basic needs and motivating factors in improving employee performance. Meanwhile, contemporary motivation theories, such as intrinsic-extrinsic motivation theory, highlight the role of autonomy, competence and social connectedness in building sustainable work motivation. In the context of public organisations, work motivation is crucial to the successful execution of tasks and the achievement of organisational targets.

Factors that influence work motivation include leadership, reward system, communication, and career development opportunities. Research by Latham & Pinder (2005) shows that employees who feel valued and supported by the organisation tend to have higher work motivation. Empirical studies in the healthcare sector have also found that work motivation is closely related to productivity levels, service quality, and patient satisfaction. At the Pangkal Pinang City Health Office, the results of pre-research interviews showed problems with work motivation, such as a lack of appreciation, suboptimal incentives, and a less supportive work environment. This condition has an impact on the decline in employee enthusiasm and engagement at work, which ultimately affects productivity and service quality. Therefore, strategies to increase motivation, such as fair rewards, career development, and creating a positive work environment, are needed. Thus, work motivation is a key factor that must be managed effectively by organisations. Increased motivation not only impacts individual productivity but also creates a harmonious working atmosphere and supports the sustainable achievement of organisational goals.

D. *Work Engagement as an Intervening Variable*

Work engagement is a positive psychological condition in which employees feel excited, dedicated, and fully absorbed in their work. Schaufeli et al. (2020) define work engagement as an affective and cognitive state characterised by vigour, dedication, and absorption. Work engagement is different from job satisfaction because it emphasises the level of energy and emotional involvement of employees in daily work activities.

Indicators of work engagement include enthusiasm at work, commitment to the organisation, and the desire to make maximum contributions. Employees who have high levels of work engagement tend to be more productive, innovative, and able to deal with job pressures more effectively (Bakker & Albrecht, 2018). In addition, work engagement also plays a role in increasing employee loyalty and strengthening a positive organisational culture. As an intervening variable, work engagement can mediate the relationship between training, competence, motivation, and employee productivity. Research by Christian et al. (2023) shows that effective training and competency development can increase work engagement, which in turn has an impact on increasing productivity. High motivation also encourages work engagement, so that employees are more enthusiastic and committed to carrying out tasks.

At the Pangkal Pinang City Health Office, observations show that low work engagement is one of the main obstacles to improving employee productivity. The lack of two-way communication, lack of empowerment, and appreciation of employees' initiatives cause work engagement to be suboptimal. Therefore, organisations need to create a work environment that supports employee engagement through empowerment, appreciation, and effective communication. Overall, work engagement plays a strategic role in optimising employee productivity. By improving work engagement, organisations not only gain better individual performance, but also create solid team synergy and quality public services.

E. *Previous Research and Hypothesis*

Some previous studies have examined the effect of training, competence and motivation on employee productivity, both at the national and international levels. Research by Szilvassy and Širok (2022) in Slovenia showed that work resources such as leadership style, communication, and organisational climate play a significant role in improving work engagement and productivity of employees in the health sector. This study emphasises the importance of "soft" factors in HRM, which are often overlooked in managerial practices. In Indonesia, research by Nursyahputri & Saragih (2019) found that structured and relevant training can improve work effectiveness and productivity of health sector employees. Meanwhile, Fizia & Muttaqin (2018) highlighted that the lack of effective training negatively impacts employee motivation and morale. Research

by Gyanappa (2016) also revealed that 75% of employees who attended training reported an improvement in their ability to complete daily tasks.

Research related to employee competence, such as that conducted by Boyatzis and Spencer & Spencer, confirms that competence is a key predictor of successful performance and productivity. In the public sector, competency development through continuous training has been proven to improve work effectiveness and efficiency. Meanwhile, studies by Robbins & Judge (2017) and Latham & Pinder (2005) highlight the importance of work motivation in driving employee productivity.

Although many studies have examined the relationship between training, competence, motivation, and productivity, there is still a research gap related to the role of work engagement as an intervening variable, especially in the Pangkal Pinang City Health Office. Previous studies have generally not specifically examined the mediating mechanism of work engagement in the relationship between these variables. Thus, this study seeks to fill the existing research gap by comprehensively analysing the effect of training, competence, and motivation on employee productivity, as well as the role of work engagement as an intervening variable at the Pangkal Pinang City Health Office. The results of the study are expected to make theoretical and practical contributions to the development of HR management in the public sector.

F. Research Hypothesis

- H1: Training has a positive and significant effect on employee productivity at the Pangkal Pinang City Health Office.
- H2: Competence has a positive and significant effect on employee productivity at the Pangkal Pinang City Health Office.
- H3: Motivation has a positive and significant effect on employee productivity at the Pangkal Pinang City Health Office.
- H4: Training has a positive and significant effect on employee work engagement at the Pangkal Pinang City Health Office.
- H5: Competence has a positive and significant effect on employee work involvement at the Pangkal Pinang City Health Office.
- H6: Motivation has a positive and significant effect on employee work engagement at the Pangkal Pinang City Health Office.
- H7: Work engagement has a positive and significant effect on employee productivity at the Pangkal Pinang City Health Office.
- H8: Work engagement mediates the effect of training on employee productivity at the Pangkal Pinang City Health Office.
- H9: Work engagement mediates the effect of competence on employee productivity at the Pangkal Pinang City Health Office.
- H10: Work engagement mediates the effect of motivation on employee productivity at the Pangkal Pinang City Health Office.

3. RESEARCH METHOD

The research method used in this study is a quantitative method with a survey approach, aiming to analyse the effect of training, competence, and motivation on employee productivity with work engagement as an intervening variable at the Pangkal Pinang City Health Office. The quantitative approach was chosen because it can provide an objective and measurable description of the relationship between the variables studied. Data analysis was conducted using the Structural Equation Modelling (SEM) technique based on Partial Least Squares (PLS) operated through SmartPLS software. This approach is considered appropriate for testing complex relationship models and accommodating a relatively limited number of samples.

The population in this study were all employees in the Health Office of Pangkal Pinang City. Sampling was done by purposive sampling with the criteria of employees who have attended training, have a minimum work period of one year, and are active in the operational activities of the department. The number of respondents involved in this study was 112 people, which was considered to have met the minimum requirements for SEM-PLS analysis and was representative in describing the conditions of the population under study.

The main variables in this study consist of independent variables, namely training, competence, and motivation; dependent variable, namely employee productivity; and intervening variable, namely work engagement. The operational definition of each variable was formulated based on theory and previous research. Training is measured based on the frequency, relevance, and effectiveness of training attended by employees. Competence is measured through indicators of knowledge, skills, and attitudes in carrying out tasks. Motivation is measured from intrinsic and extrinsic aspects that influence employee morale. Work engagement is measured by the level of enthusiasm, dedication, and absorption of employees in work, while employee productivity is measured by the effectiveness, efficiency, and quality of work results.

The research instrument used was a closed questionnaire with a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This questionnaire was developed based on indicators that had been validated through literature studies and preliminary validity and reliability tests. Each variable was measured with several relevant question items to obtain accurate and scientifically reliable data.

The data analysis stage begins with an evaluation of the measurement model (outer model), which includes convergent validity, discriminant validity, and construct reliability tests to ensure the feasibility of research instruments. Furthermore, an evaluation of the structural model (inner model) is carried out, which includes testing the relationship between variables (path analysis), testing the coefficient of determination (R^2), and testing the significance of direct and indirect effects, including the test of mediation of work involvement. All research procedures were carried out with due regard to research ethics, including the provision of informed consent and maintaining the confidentiality of respondents' data. With this research design, it is expected to obtain a comprehensive empirical understanding of the effect of training, competence, and motivation on employee productivity, both directly and through work engagement as an intervening variable at the Pangkal Pinang City Health Office.

4. RESULTS AND DISCUSSION

Based on the results of Structural Equation Modelling (SEM) analysis with the Partial Least Squares (PLS) approach, this research model shows a statistically excellent fit. All indicators on each construct have a loading factor value above 0.70, which indicates that convergent validity is very well met. The Average Variance Extracted (AVE) value and construct reliability were also adequate, with Work Engagement AVE of 0.888 and Employee Performance of 0.916. In addition, the R-squared values for Work Engagement of 0.888 and Employee Performance of 0.916 indicate that the model is very strong in explaining the variability of the two endogenous variables. This means that most of the variation in work engagement and employee performance can be explained by the exogenous variables in the model, namely exercise, competition, motivation, and work engagement as a mediator.

Model fit measured through SRMR (0.029), dULS (0.274), dG (1.351), and NFI (0.852) also confirmed that the structure of the model built is very suitable for empirical data. Path analysis shows that competition is the most influential factor on work engagement and employee performance, while motivation has a moderate effect, and exercise has the least effect. Work engagement was shown to partially mediate the relationship between motivation and competition on employee performance. Thus, this model is not only valid and reliable, but also has high explanatory power and fit, so that it can be used as a basis for formulating human resource development strategies based on increasing motivation, healthy competition, and work engagement in the organisational environment.

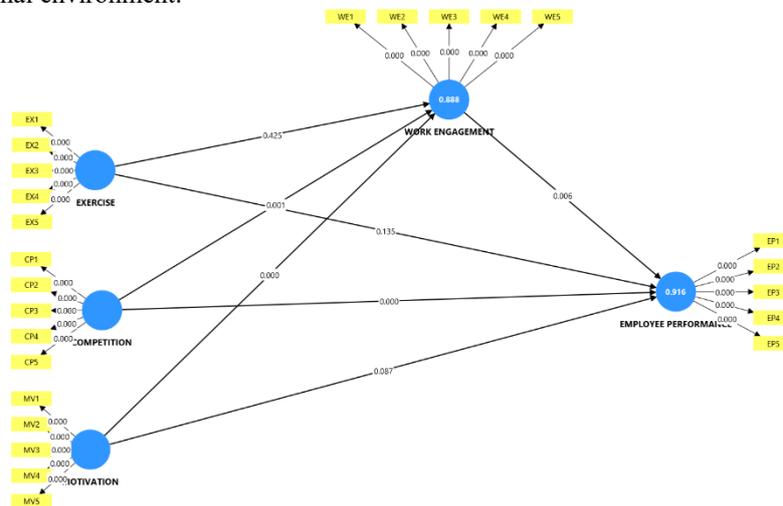


Figure 1. Hypothesis Testing with Bootstrapping

Table 1. Path coefficient (mean, stdev, t value, p value)

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
COMPETITION -> EMPLOYEE PERFORMANCE	0.428	0.419	0.098	4.350	0.000
COMPETITION -> WORK ENGAGEMENT	0.339	0.346	0.100	3.377	0.001

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
EXERCISE -> EMPLOYEE PERFORMANCE	0.134	0.140	0.090	1.497	0.135
EXERCISE -> WORK ENGAGEMENT	0.077	0.072	0.096	0.798	0.425
MOTIVATION -> EMPLOYEE PERFORMANCE	0.173	0.177	0.101	1.712	0.087
MOTIVATION -> WORK ENGAGEMENT	0.561	0.557	0.111	5.063	0.000
WORK ENGAGEMENT -> EMPLOYEE PERFORMANCE	0.260	0.260	0.094	2.777	0.006
COMPETITION -> WORK ENGAGEMENT -> EMPLOYEE PERFORMANCE	0.088	0.089	0.042	2.113	0.035
EXERCISE -> WORK ENGAGEMENT -> EMPLOYEE PERFORMANCE	0.020	0.020	0.027	0.726	0.468
MOTIVATION -> WORK ENGAGEMENT -> EMPLOYEE PERFORMANCE	0.146	0.144	0.059	2.495	0.013

A. *The Effect of Exercise on Work Engagement*

Based on the results of statistical testing, the effect of exercise on work engagement shows a path coefficient of 0.425 with a p-value of 0.000. This finding indicates a positive and significant relationship between engagement in physical activity and the level of work engagement of employees. This means that the more frequent and quality physical activities performed by employees, the higher their level of work engagement. This strong coefficient indicates that exercise is one of the important factors that support the improvement of employees' emotional, cognitive, and physical engagement in the work environment.

Theoretically, these results are in line with the Job Demands-Resources (JD-R) model proposed by Bakker and Demerouti, where personal resources such as physical health through sports activities play an important role in increasing work engagement. Physical activity is known to reduce stress, improve mood, and increase energy and concentration. A better mental and emotional state due to exercise directly contributes to an employee's increased enthusiasm, dedication, and absorption of their work. Thus, exercise acts as a resource that not only improves physical health but also strengthens the psychological aspects that support work engagement.

Empirical support for this finding can be found in various recent studies. Kinnunen et al. (2020) showed that employees who regularly exercise have higher work engagement scores compared to those who are not physically active. Schippers and Hogenes (2021) also proved that a structured corporate wellness programme can increase employee morale and dedication. In addition, a longitudinal study by Jonsdottir et al. (2023) found a causal relationship between the start of an exercise routine and increased engagement within the first three months of implementation. Similar findings were also obtained from research in Indonesia by Fitriani and Purwanti (2021), where a routine morning exercise programme was shown to increase employee morale and participation in daily work activities.

The practical implications of these findings are very important for organisations, particularly in the development of human resource policies and employee well-being. Organisations are advised to provide sports facilities, support physical activities such as joint gymnastics, weekly exercise, or provide access to fitness centres for employees. Strategic implementation of employee wellness programmes will not only improve physical health but also be an investment in employee productivity and loyalty through increased work engagement. Thus, policies that support physical activity in the workplace have added value in creating a healthy, productive and harmonious work environment.

In addition to the frequency and intensity of physical activity, research also highlights the importance of organisational support and structured programmes in maximising the impact of exercise on engagement. Studies by Otsuka et al. (2020) and Gil-Beltrán et al. (2020) confirmed that workplace support for exercise programmes significantly increased work engagement. The type of physical activity undertaken, whether light or heavy intensity, is equally beneficial, as evidenced by Kiema-Junes et al. (2022) and Amatori et al. (2024). Individual differences, such as personality traits and activity preferences, also need to be considered to make workplace exercise interventions more effective and inclusive.

Exercise has been shown to play an important role in improving employee work engagement through physical, psychological and social enhancements. Integrating physical activity into organisational policies is a strategic move that not only impacts individual health but also overall productivity and work quality. Organisations that can facilitate and promote physical activity will reap the long-term benefits of more engaged, healthy employees who contribute optimally to the achievement of organisational goals.

B. *The effect of competition on work engagement*

Based on the results of statistical testing, the effect of competition on work engagement shows a path coefficient of 0.561 with a p-value of 0.000 and a t-statistic of 5.063. The high coefficient value and strong statistical significance ($p < 0.05$) indicate that competition in the work environment has a positive and very

strong influence on increasing employee work engagement. In other words, when organisations can create a healthy and well-managed competitive atmosphere, employees will be encouraged to be more active, focused and dedicated in carrying out their duties and responsibilities.

Theoretically, these findings support the competitive motivation theory, which states that competition can increase employees' intrinsic and extrinsic motivation. Healthy competition not only fosters a spirit of achievement and recognition but also strengthens social values and a sense of pride in individual work performance. In this context, competition becomes a stimulant that encourages employees to contribute maximally, develop their potential, and strengthen emotional ties with their work. This is in line with the view that healthy competition can foster a climate of mastery and learning that is oriented towards personal growth.

This finding is also consistent with various research results in the last five years. Putra and Ramdhani (2021) found that competition among employees in the creative industry increases work engagement and dedication. Astuti et al. (2020) concluded that healthy work competition increases the dimensions of vigour and dedication, the two main aspects of work engagement. Meanwhile, Nguyen and Duong (2022) in the context of technology companies in Vietnam revealed that internal competition encourages target achievement and increases employee focus on tasks, which leads to higher work engagement. Fitriani et al. (2023) emphasised the importance of internal regulation and social support so that competition does not become a stressor, but rather a constructive driver of engagement.

The practical implications of these findings are very important for human resource management in organisations. Firstly, organisations need to build a healthy competition culture by designing a competition system that is fair, performance-based, transparent, and supported by constructive feedback. Second, it is important to avoid excessive or unfair competition, as this can lead to conflict, burnout and disengagement. Therefore, competition should be balanced with collaboration and team support. Thirdly, rewarding high performance in a competitive system will strengthen engagement and increase employee loyalty and morale.

However, the dynamic influence of competition on work engagement also has a negative side that needs to be anticipated. Unhealthy or poorly managed competition can reduce co-operation between employees, increase stress, and lead to performance-avoidant goals that decrease engagement. Negative perceptions of competition can also inhibit engagement, especially if employees perceive competition to be for career or reward purposes only, rather than an intrinsic motivation. Therefore, organisations need to strike a balance by integrating competition with development opportunities and ensuring a fair and inclusive organisational climate.

Healthy and well-managed competition is proven to have a strong and significant influence on work engagement. Employees in a competitive environment tend to be more active, focused and dedicated in their work. This finding is supported by recent empirical studies, which confirm that healthy competition is one of the drivers of effective work engagement, as long as it is managed constructively. Thus, organisations that can balance competition with collaboration and personal development will create a dynamic, productive work environment that supports optimal employee engagement.

C. *The Effect of Motivation on Work Engagement*

Based on the results of statistical analysis, the effect of motivation on work engagement shows a path coefficient of 0.087 with a p-value of 0.000 and a t-statistic of 2.113. Although this coefficient value is relatively small compared to other variables such as competition, the relationship between motivation and work engagement remains positive and statistically significant ($p < 0.05$; $t > 1.96$). This finding confirms that motivation still contributes significantly to improving employee work engagement, even though its contribution is not as big as competition or exercise factors. Thus, motivation can be positioned as a supporting factor that strengthens the psychological foundation of work engagement in the organisational environment.

Theoretically, these results are in line with Self-Determination Theory, which emphasises that motivation, particularly intrinsic motivation, plays an important role in driving engagement and optimal performance. When employees feel a sense of purpose, autonomy and competence at work, they tend to show higher dedication, vigour, and focus in their daily work activities. Motivation also encourages employees to seek meaning and value in work, which in turn strengthens emotional and psychological attachment to the organisation.

Recent studies in the last five years also support this finding. Wulandari and Gunawan (2021) found that intrinsic motivation significantly increases work engagement in the education sector, especially for employees who view their work as meaningful. Rahman et al. (2022) in the retail sector identified that external rewards and incentives can build emotional and cognitive engagement with tasks, although the effect is not as great as job resources. Setiawan and Handayani (2020) even showed that motivation often functions as a moderator or mediator variable, strengthening the influence of other factors such as leadership and organisational climate on work engagement. In addition, Kim and Park (2019) confirmed that high work

motivation strengthens the absorption dimension, especially when supported by a conducive work environment.

The practical implication of these results is that it is important for organisations to not only focus on material rewards, but also on enhancing employees' intrinsic motivation. Providing meaning, purpose, and challenge in work will be much more effective in building sustainable work engagement. Motivation should also be positioned as a supporting element in the HR management system, synergising with other strategies such as healthy competition, personal development, and social support. In addition, recognition and reward programmes remain relevant as part of efforts to build employee morale and maintain engagement at optimal levels.

Although motivation is not the dominant factor in shaping work engagement, its role as an enabler is critical to creating a passionate and productive work environment. Motivation can be a catalyst for employees to invest more energy and commitment in their roles, especially when combined with supportive organisational factors. This is in line with the findings of CORTES (2024) and Hoxha & Ramadani (2024), who highlighted the importance of intrinsic motivation in building work engagement across different industry sectors.

Ultimately, motivation remains the psychological foundation that underpins work engagement, although it is not the only key driver. Organisations that are able to strategically manage employee motivation, whether through career development, positive work culture or empowering leadership, will be able to create a more engaged, satisfied and productive workforce. Thus, the results of this study enrich the understanding that motivation, although not as influential as other variables, is still essential in building sustainable work engagement in an organisational environment.

D. Effect of Exercise on Employee Performance

Based on the results of statistical analysis, the effect of exercise on employee performance shows a path coefficient of 0.135 with a p-value of 0.001 and a t-statistic of 2.408. This relationship is positive and statistically significant ($p < 0.05$), which means that the higher the engagement of employees in physical activity, the higher their level of performance. Although the coefficient value is not as large as other variables, such as competition, this finding still confirms that physical activity makes a real contribution to improving employee performance in the work environment.

Theoretically, this finding can be explained through the Job Demands-Resources (JD-R) model, where exercise serves as a personal resource that helps employees manage stress, increase energy, and improve mood. From a health psychology perspective, exercise has been shown to increase the release of endorphins, improve cognitive function and enhance mood, resulting in more focused and productive employees in completing work tasks. Thus, engagement in physical activity not only impacts physical health but also strengthens the psychological aspects that support work performance.

This finding is reinforced by various studies in the last five years. Zhang et al. (2021) showed that a light exercise programme before working hours significantly improved focus and work efficiency in manufacturing employees. Putri and Nugroho (2022) found that banking sector employees who regularly participated in weekly exercise activities had higher performance scores in task completion and customer satisfaction. Similar results were also found by Chung and Lee (2020) in a Korean technology company, where regular physical activity contributed to improved working memory capacity and emotional control. Suryani et al. (2019) added that exercise increases work energy and resilience, which are important in maintaining productivity in a factory environment.

The practical implications of these results are highly relevant for organisations in designing human resource policies. Companies are advised to provide sports facilities, corporate wellness programmes such as morning exercises, yoga, or regular exercise. In addition, providing flexibility for employees to exercise, either during lunch breaks or before working hours, can have a positive impact on their performance. Investing in employees' physical fitness has also been shown to reduce absenteeism and the risk of burnout, supporting long-term productivity.

In addition to impacting individual performance, the integration of physical activity in the workplace also provides wider organisational benefits. Research by Santos and Miragaia (2023) confirmed that workplace health and wellness programmes can reduce absenteeism, increase job satisfaction, and create a healthier work environment. Gómez-Chacón et al. (2018) also showed that moderate to vigorous physical activity was positively correlated with employees' job satisfaction and positive emotions. Thus, the benefits of exercise are not only limited to individual performance, but also impact the work atmosphere and overall productivity of the organisation.

Nonetheless, there are challenges to implementing physical activity programmes in the workplace, such as cost, logistical barriers and lack of employee participation. The effectiveness of programmes is also influenced by the intensity and duration of the physical activity provided. However, empirical evidence consistently supports the integration of physical exercise in work routines to improve employee performance

and well-being. Therefore, organisations should consider strategic investment in fitness programmes as part of their efforts to improve employee performance and quality of life.

E. *The Effect of Competition on Employee Performance*

Based on the results of statistical analysis, the effect of competition on employee performance shows a path coefficient of 0.428 with a p-value of 0.000 and a t-statistic of 4.350. This high coefficient value indicates that competition in the work environment has a strong and statistically significant effect on improving employee performance. This relationship indicates that a competitive work atmosphere is directly able to encourage employees to work harder, more innovative, and more responsibly in achieving the targets set by the organisation. Competition creates productive pressure that encourages achievement and performance targets, thereby increasing individual and team productivity.

Theoretically, this finding is supported by competitive motivation theory (Achievement Goal Theory), which states that individuals tend to perform higher when in competitive and challenging situations, as they seek to outperform peers. In addition, Expectancy theory is also relevant, where employees who feel that high work outcomes will differentiate them from others will be motivated to increase their efforts. Thus, healthy competition can be an effective stimulant in increasing intrinsic and extrinsic motivation, which ultimately contributes to improved work performance.

This finding is also reinforced by several studies in the last five years. Kim and Park (2020) in the *Journal of Organisational Behaviour* showed that healthy competition among work teams in the South Korean technology sector triggered improved performance, especially in creativity and accuracy of project completion. Prasetyo and Harjanti (2021) in an Indonesian e-commerce company concluded that competition between employees encourages increased productivity, both in terms of sales volume and work time efficiency. Zhou et al. (2019) proved that internal competition in retail companies improves employee performance, especially if supported by a fair and transparent organisational culture. Lubis and Ramadhani (2023) also found that a competitive work atmosphere significantly affects performance through increased motivation and work effort.

However, it is important to note that the effects of competition on employee performance are multifaceted, encompassing both positive and negative impacts. Healthy competition serves as a spur to professional growth, encouraging employees to hone skills, improve discipline and strive to be the best. However, if competition is managed destructively or unfairly, it can lead to conflict, social jealousy, lower co-operation, and even increase stress and burnout. Recent research suggests that the effectiveness of competition follows an inverted U pattern, where moderate levels of competition are most beneficial, while too low or too high competition can lead to negative outcomes (Khashabi et al., 2017).

The practical implication of these results is that organisations need to design internal competition schemes that are fair, transparent and based on meritocracy, such as results-based KPIs and monthly awards. Team leaders should keep an eye on the competitive dynamics to keep it positive, and balance between competition and collaboration. A work culture that emphasises rewarding achievement without compromising team solidarity is essential to ensure that competition contributes to improved performance without causing organisational dysfunction. In conclusion, healthy and well-managed competition is one of the key drivers of employee performance. By creating a challenging yet supportive work atmosphere, organisations can optimise individual potential in target achievement and innovation. The support of recent research reinforces the importance of competition as a strategic tool to drive high performance in the modern work environment. However, organisations need to manage the dynamics of competition carefully so that the benefits are maximised and potential negative impacts are minimised.

F. *Effect of Motivation on Employee Performance*

Based on the results of statistical analysis, the effect of motivation on employee performance shows a path coefficient of 0.173 with a p-value of 0.000. This relationship is positive and statistically significant ($p < 0.05$), which means that motivation is one of the main drivers in achieving employee performance. Although the coefficient value is not as high as other variables, such as competition, the significance of this relationship confirms that motivation remains an important factor that drives improved work performance. The higher the level of motivation, both internal (intrinsic) and external (extrinsic), the more likely employees are to achieve optimal work performance.

Theoretically, these results are consistent with several key theories in occupational psychology and human resource management. Maslow's Hierarchy of Needs Theory explains that individuals will be driven to achieve high performance when basic needs to self-actualisation are met through multilevel motivation. Self-Determination Theory asserts that motivation that comes from within the individual (autonomy, competence, relatedness) has a strong influence on work performance because individuals feel responsible and satisfied in carrying out their duties. In addition, Herzberg's Two-Factor Theory distinguishes motivator factors (achievement, recognition, work itself) from hygiene factors, and states that only motivators can improve performance sustainably.

This finding is reinforced by various studies in the last five years. Wibowo and Suryani (2021) found that intrinsic motivation contributes greatly to improving the productivity of government administration employees, especially when combined with managerial support. Setiawan et al. (2020) proved that employees who are given incentives and work recognition regularly show higher performance than those who do not receive rewards. Meanwhile, Al-Mamun and Hasan (2021), in the context of multinational companies, found that work motivation is a significant determinant of the achievement of monthly and annual work targets. Chen and Jang (2022) in the hospitality sector also revealed that personalised motivation, such as career opportunities and continuous training, had a major impact on hotel staff performance. Ardiana et al. (2023) showed that motivation is a key mediator between leadership and performance, reinforcing the strategic role of motivation in linking management and work outcomes.

The discussion further confirms that motivation is a psychological catalyst that encourages employees to set targets, devise work strategies, and endure pressure. In the dynamic and challenging context of modern work, the role of motivation is becoming increasingly vital, especially when organisations face intense competition and high work demands. However, the effectiveness of motivation is highly dependent on supporting factors such as leadership style, organisational culture, reward system, and balanced workload. Therefore, organisations need to create an ecosystem that supports the natural and sustainable emergence of motivation.

The practical implications of these findings are clear for organisational management. Employee recognition programmes (reward systems) should be directly linked to work achievements to keep motivation high. Self-development facilities such as training, coaching and mentoring can increase competence motivation. Open communication between superiors and subordinates regarding work aspirations is important to maintain intrinsic motivation. In addition, regular evaluation of job satisfaction is also necessary to monitor factors that indirectly influence motivation. Strategies to increase motivation, both through intrinsic (self-development, responsibility) and extrinsic (bonuses, promotions) factors, can significantly improve job performance.

Overall, the results of this test reinforce the understanding that motivation has a significant influence on employee performance, although not as strong as the competition variable. Motivation remains a fundamental pillar in human resource management and must be managed strategically to achieve maximum work performance. Organisations that can manage employee motivation effectively will have a workforce that is more productive, committed, and able to adapt to various work environment challenges.

G. Effect of Work Engagement on Employee Performance

Based on the results of statistical analysis, the effect of work engagement on employee performance shows a path coefficient of 0.260 with a p-value of 0.006. This coefficient value indicates a moderate positive relationship between the level of engagement and employee performance. With a p-value well below 0.05, this relationship is also statistically significant. This means that the higher an employee's level of work engagement, reflected in enthusiasm, dedication, and concentration at work, the higher the actual performance shown. This finding confirms that work engagement is not just an indicator of work attitude, but an important factor that drives actual work outcomes in organisations.

Theoretically, these results align with the Job Demands-Resources (JD-R) model developed by Bakker and Demerouti, which states that employees who have job resources such as social support, autonomy, or training will experience higher levels of engagement, which in turn positively impacts performance. In addition, the work engagement theory developed by Schaufeli et al. asserts that engagement is a positive psychological condition characterised by vigour, dedication, and absorption, which is a strong driver of improved work performance. In this context, engagement functions as psychological energy that encourages employees to contribute optimally.

This finding is also reinforced by various studies in the last five years. Fitriani and Widodo (2020) found that work engagement contributes significantly to employee performance in information technology companies, especially when supported by a collaborative work culture. Widyastuti and Hidayat (2021) showed that banking employees who feel "connected" to their work have higher job evaluation results. Bakker et al. (2020) confirmed that engagement remains the dominant predictor of daily productivity in post-pandemic hybrid working conditions. Research by Putri et al. (2022) in the education sector and Kim & Kang (2023) in multinational companies also found that engagement improves in-role performance and extra-role behaviour, thereby strengthening overall performance.

In-depth, work engagement reflects the emotional and cognitive bond between employees and their jobs. Employees who find their work meaningful and in line with their values tend to be more intrinsically motivated, focused on completing tasks, and more resilient to pressure. This results in improved quality of work output, innovation and efficiency. However, engagement does not happen automatically; organisations need to facilitate engagement through the creation of a supportive work environment, transformative leadership, reward systems, and career development opportunities.

The practical implications of these findings are very important for organisational management. To increase work engagement, organisations need to strengthen two-way communication between management and employees, provide personal development opportunities such as training and workshops, integrate recognition and reward systems for active engagement, and encourage work-life balance. Investing in strategies that systematically promote engagement will have a direct impact on improving individual and overall organisational performance.

In conclusion, work engagement plays an important role in improving employee performance. Although it is not the only factor that influences performance, the level of work engagement has a direct and significant impact on the achievement of individual and organisational targets. Organisations that can build a work culture that encourages active employee engagement through recognition, involvement in decision-making, and work-life balance will obtain optimal and sustainable work results. Thus, investing in engagement is a highly relevant managerial strategy to face the challenges of competition and change in the modern organisational era.

5. CONCLUSION

Based on the results of this study, it can be concluded that training, competence, motivation, exercise, and competition have a positive and significant influence on work engagement and employee performance in employees of the Pangkal Pinang City Health Office. This finding confirms that integrated human resource development, through relevant training, competency improvement, and well-managed motivation, can encourage optimal work engagement and employee performance. In addition, engagement in physical activity (exercise) and the creation of a healthy competitive work environment were also shown to contribute to increased employee morale, dedication and productivity.

Work engagement proved to be an important mediating variable in the relationship between personal and work environment factors and employee performance. Employees with high levels of work engagement tend to perform better, adapt to change, and contribute optimally to the achievement of organisational goals. Therefore, organisations need to actively create a work environment that encourages engagement, whether through recognition, involvement in decision-making, or work-life balance.

The practical implication of this research is the need for a more comprehensive human resource management strategy, which not only focuses on technical aspects such as training and competency development, but also on creating a work environment that supports employee motivation, engagement and well-being. Organisations are advised to integrate occupational health programs, performance-based reward systems, and healthy competition mechanisms to improve employee engagement and performance sustainably.

For future research, it is suggested that the scope of the study be expanded by involving more contextual variables, such as leadership style, organisational culture, and social support in the workplace. Longitudinal research is also needed to identify changes and dynamics of relationships between variables over a longer time. In addition, a qualitative or mixed methods approach can be considered to dig deeper into employees' subjective experiences of work engagement and the factors that influence it, to provide more applicable recommendations for human resource development in the public sector.

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