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The relationship of psychological capital, transformational leadership, and internal communication to work engagement in organizations

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Abstract---Organization A, which represents the country in the oil and gas industry and is tasked with managing oil and gas activities in Indonesia to ensure national energy security, requires employees with high work engagement. This requires enthusiasm, dedication, and perseverance to contribute fully to their work. However, human resource management surveys and several phenomena analyzed show that work engagement in Organization A is low. This research consists of two studies: a research study and an intervention study. This research aims to analyze the relationship between psychological capital (individual internal factors), transformational leadership (individual external factors), and internal communication (organizational factors) on work engagement using a sample of 267 employees of Organization A. Using a quantitative design supported by qualitative data, and found that individual psychological capital, transformational leadership style, and internal communication in the organization significantly predicted work engagement. Among these factors, internal communication predicted work engagement beyond psychological capital and transformational leadership. An intervention study involving 23 participants was designed to determine the effectiveness of an internal communication strategy training program in increasing work engagement. Results from the intervention study showed significant improvements in participants' pre-test and post-test scores, indicating the effectiveness of the program in increasing work engagement.

Keywords--Internal Communication, Psychological Capital, Transformational Leadership Work Engagement.

Introduction

Organizations need proactive employees who are independent, think ahead, and are willing to contribute fully to their work in order to achieve organizational targets and goals. Developing of those work patterns among employees necessitates strong work engagement (Salanova & Schaufeli, 2008). Employees who are less engaged will show various behaviors that are less productive and hinder synergistic team efforts towards organizational goals (Salanova & Schaufeli, 2008). Conversely, engaged employees will be more productive and provide optimal effort to achieve organizational goals (Robinson et al., 2004). They also exhibit dedication, which is reflected in feelings of suitability, enthusiasm, pride, challenge, and inspiration in their work, as well as diligence, characterized by full concentration and enjoyment in their tasks.

This research study was conducted at Organization A. Organization A, as a representative of the state in the oil and gas industry sector which is tasked with carrying out oil and gas management activities in Indonesia in order to fulfill the national energy security, requires employees who have high work engagement; those who have enthusiasm, dedication and perseverance to fully contribute to their job. However, the results of human resource management survey indicate that work engagement at Organization A is low.

Based on previous research studies, work engagement in an organization provides benefits for individuals, teams, and organizations. In an individual context, good work engagement will improve employee performance, employee satisfaction, employee welfare, organizational citizenship behavior, and individual morale (Bailey et al., 2017; Lahat & Marthanti, 2021; Olesen, 2018; Uddin et al., 2019), but is inversely proportional to the intention to leave the organization and stress or *burn-out* (Lahat & Marthanti, 2021). In terms of work team development, effective engagement drives team performance (Uddin et al., 2019). Within the scope of the organization, work engagement will increase organizational performance, organizational commitment, organizational productivity, organizational profits, as well as organizational efficiency, and effectiveness (Barik & Kochar, 2017; Nienaber & Martins, 2020); (Olesen, 2018).

Many factors influence work engagement in organizations. (Zahari & Kaliannan, 2023) classified the factors into 5 (five) categories, namely: psychological states, job design, leadership, organizational and team factors, as well as organizational interventions. Not all categories of predictors were examined in this research, but limited to predictors of work engagement which, based on the analysis, are problems in Organization A.

Predictors of work engagement can be various factors across different levels. At the psychological level, predictors include positive emotion (Malik & Khan, 2020), strength used (Idike et al., 2020), and psychological capital (Jung et al., 2018). At the job design level, predictors encompass perceived autonomy (Borst et al.,

2019), supervisory support (Guidetti et al., 2018), task characteristics, and career prospects (Dwi Sari et al., 2020). Leadership-level predictors include transformational leadership (Mauno, S., Ruokolainen, M., Kinnunen, U. & De Bloom, 2016), ethical leadership (Mostafa & Abed El-Motalib, 2020), authentic leadership (Malik & Khan, 2020), and effective leadership (Wushe & Shenje, 2019). Organizational and team factors influencing work engagement comprise HR practices (Tensay & Singh, 2020), organizational policies and procedures (Wushe & Shenje, 2019), organizational support for development (Halinski & Harrison, 2020), and internal communication (Wailulu et al., 2019; Walden et al., 2017). Lastly, organizational interventions, such as training (Pradhan et al., 2019) and training & career development (Wushe & Shenje, 2019) are also significant predictors of work engagement.

Based on the analysis of work engagement problems in Organization A, according to the results of interviews, discussions and supporting data (HR Management Survey, Employee Managerial Competency Assessment results, and Annual Report), the variables predicting work engagement in Organization A are: psychological capital, transformational leadership and internal communication which are included in the categories of psychological states, leadership and organizational factors.

Psychological capital, representing the individual's internal factors, is a predictor variable examined in this research in relation to work engagement. Considering the tasks and challenges faced by Organization A in achieving its Long-Term Plan (LTP), employees are a crucial resource. Employees are expected to be able to become individuals who have positive capital for the organization in carrying out work systems effectively to achieve organizational goals (Taylor, 1973 in Jones, 2010).

Another predictor variable that is studied in relation to work engagement is a variable that represents external individual factors, transformational leadership. The challenges of Organization A's LTP are quite tough. So, Organization A must use out of the box methods, business not as usual and various breakthroughs. The role and capabilities of human resources as people enablers play an important role in efforts to achieve the organization's targets. To support this, the suitable leadership style is needed. The right leadership style will help the organization in implementing its vision and mission and encourage every individual within to strive to achieve common goals. Transformational leadership is a leadership pattern that is suitable for organizations that have big targets and dreams, require serious renewal and improvement and want to change and adapt together to achieve the desired goals (Hinkin & Tracey, 1999).

Lastly, internal communication representing the organizational practices is examined as the third predictor of work engagement. Organization A has prepared a LTP aimed at responding to the challenges of targets for the upstream oil and gas industry. The goals and targets of this plan must be communicated well to all members of the organization. With the increasing role of all parts of the organization, effective internal communication is needed to align the implementation of the vision, mission and techniques for achieving these shared challenging organization goals and targets. Internal communication practices

facilitate interaction between organizational members (Karanges et al., 2014), and carry out information functions, motivation & idea stimulation functions and control functions for achieving goals and targets (SastroAtmodjo et al., 2021).

Hypothesis Development

Psychological Capital and Work Engagement

Psychological capital is a state of an individual's positive psychological development which is characterized by: (1) having the self-confidence to take and make the efforts necessary to succeed in challenging tasks; (2) making positive attributions regarding current and future success; (3) persevering towards the goal and, if necessary, redirect the path towards the goal in order to succeed; and (4) when hit by problems and difficulties, maintain and bounce back and even overcome them to achieve success (Luthans et al., 2007).

Dimensions of psychological capital, which is an individual's positive psychological capacity, are hope, efficacy, resilience, and optimism (Luthans et al., 2007). Hope is characterized by a form of totality and persistence of effort based on the belief in achieving goals. Efficacy is a form of ability belief that is characterized by task mastery. Resilience is characterized by persistence and toughness to achieve optimal results (Yuriah et al., 2024). Then, optimism relates to a person's perception of the possibility of a positive outcome

Individuals with positive psychological capital devote energy to doing work with totality that is focused on goals and paths to achieving goals (Thompson et al., 2015). They work intensively on a task by devoting emotional, physical, and cognitive resources to their work with the optimistic understanding that positive results will materialize from their efforts because they feel they do have control of themselves. Individuals with good psychological capital have strong self-confidence in their ability to handle problems and complete tasks well (Bandura, 1977). Individuals with positive psychological capital have the ability to manage challenge, overcome risks and remain resilient in trying to survive in the face of obstacles, challenges and threats in achieving goals (Thompson et al., 2015).

High psychological capital in individuals can increase positive feelings, so that employees feel connected to their work. Employees engaged in their work feel more energized, dedicated, fully engaged in work and manage aspects of their tasks to achieve optimal results. With its dimensional characteristics, positive psychological capital will increase employee work engagement (Bakker et al., 2006; Bakker et al., 2008; Hodges, 2010; Simons & Buitendach, 2013; Xanthopoulou et al., 2009) which is characterized by totality in carrying out their work to contribute to the success of the organization (Kang & Busser, 2018). From the explanation above, the hypothesis in this research is formulated as follows:

H1: Psychological capital has a positive relation to work engagement

Transformational Leadership and Work Engagement

Transformational leadership is a leadership style that inspires followers to engage, commit, and share their vision and goals for the organization; encourage followers to be innovative in solving organizational problems; and supports followers to have leadership competencies through coaching and mentoring (Bass & Avolio, 2000). The transformational leadership style is based on four dimensions (Bass, 1985): idealized influence, inspirational motivation, intellectual stimulation and individualized consideration.

Leaders with idealized influence act as role models (Hinkin & Tracey, 1999) and build loyalty and devotion (Bass & Bass, 2009) which encourage subordinates to perform effectively and be enthusiastic about making better contributions to organizational performance (Shamir, et al., 1993). When subordinates see leaders as role models, engagement and contribution increase and as a result, they will involve their whole selves in work. Through inspirational motivation, leaders create a view of the future with a vision that is attractive to subordinates and makes them an important part of the organization (Piccolo & Colquitt, 2006). This feeling creates engagement and encourages deep subordinate involvement in their work. An intellectually stimulating leader encourages followers to think outside the box and create creative solutions to problems (Bass & Bass, 2009). Leaders who display intellectually stimulating behavior can influence employee engagement in work. Leaders will encourage employees to go beyond basic needs towards the needs of the mission and goals of the organization through this behavior (Bass, 1985). Employees are more dedicated and attached to work and the organization (Thisera & Sewwandi, 2018). When leaders show genuine attention and concern for subordinates, it will encourage positive leader-follower relationships, and this will increase the sense of belonging to the organization (Zhu et al., 2009). If leaders show personal values such as attention and respect to their subordinates, subordinates will feel that the workplace environment supports them and this creates a sense of obligation to reciprocate this support positively (Thisera & Sewwandi, 2018).

A transformational leader will be a role model, and lead by applying his example so that he is admired, respected and trusted. They are able to inspire enthusiasm and optimism. Transformational leaders are able to create a diverse, open and creative environment that makes them comfortable to innovate, think outside the box, and dare to take risks to solve problems and find solutions. They know and understand the needs of each subordinate individually, acting as mentors and coaches for team members, to develop, empower and inspire them for better achievements. Transformational leadership forms work engagement by encouraging subordinates to increase their best potential, be proactive, committed, dedicated and have high work enthusiasm in their work in order to achieve organizational goals. From the explanation above, the hypothesis in this research is formulated as follows:

H2: Transformational leadership has a positive relation to work engagement

Internal Communication and Work Engagement

Internal communication is defined based on Jacobs et al. (2016) and Verčič et al. (2012) criteria, with the exchange of information (such as vision, mission and organizational policies) and ideas among employees in an organization to build trusting and open relationships, create understanding and work towards common goals as efficiently as possible.

Internal communication facilitates relationships between the organization, supervisors and employees (Karanges, et al., 2014) to build a sense of togetherness within the organization. Internal communication is generally used as a means of conveying and exchanging information (Ruck & Welch, 2012). Internal communication bridges relationships in a professional and useful work context (Ragins & Dutton, 2007). Internal communication can be used as a means of conveying information, business strategies, organizational goals and values to employees (Ruck & Welch, 2012), and involving them more deeply with organizational goals. By incorporating values into internal communications, employees can become advocates for those values and start working based on them in achieving organizational goals (Yuriah et al., 2023). This is positively related to increasing employee work engagement behavior (May et al., 2004). Through effective internal communication, employees can know their job responsibilities and how they contribute to the team and organization (Ruck & Welch, 2012) and how well they do their job, and what development opportunities there are (Ruck & Welch, 2012). When roles and responsibilities are communicated clearly, and the organization supports this clarity, the result is that employees know which areas of responsibility and opportunities for personal development as part of the organization's support. This organizational support is a form of appreciation for employee contributions and concern for employee welfare. This has a positive impact on feelings of meaning, empowerment and feeling important because they have an operational contribution in the workplace (Ruck & Welch, 2012). This encourages employee engagement in their work. Internal communication includes interactive communication within the organization (Ruck & Welch, 2012), where employees can voice their opinions and thoughts freely without fear that it will lead to negative escalation, and these opinions are considered in organizational decision making. This opportunity for employees to provide feedback is a key factor in role development and employee participation. Furthermore, feeling a role in the organization will increase employee work engagement.

Referring to its role in the organization, effective and efficient internal communication has an important role in developing and maintaining work engagement (Kang & Sung, 2016; Wailulu et al., 2019; Walden et al., 2017) which is a fundamental factor for organizational success (Borcaa & Baesu, 2014; Verčič, et al., 2012; Welch, 2012). From the explanation above, the hypothesis in this research is formulated as follows:

H3: Internal communication has a positive relation to work engagement

This research also aims to provide recommendations for intervention programs for the problems faced by the organization. Low engagement among employees in Organization A tends to be caused by underdeveloped individual psychological

capital, less effective leadership style and internal communication practices not running well. The intervention program design is proposed and prepared for predictor that has the greatest significant influence on predicting work engagement outcomes considering limited resources.

Organizational development interventions are a series of activities, actions, and events intended to help an organization improve its performance and effectiveness (Cummings, T. G. & Worley, 2001). Based on consideration of the advantages and disadvantages of existing intervention program alternatives, the approach chosen for intervening on existing problems in the organization is the human resource intervention – developmental training approach (Cummings, T. G. & Worley, 2001). Training is a form of intervention program with the concept of developing personal resources which aims to provide information and knowledge (Cummings, T. G. & Worley, 2001), which can be implemented with limited time and costs but the results can be measured directly (Noe et al., 2014).

The intervention program was implemented using the e-learning method with the concept of self-improvement training. Several studies prove that e-learning is effective in increasing competencies (Pratiwi, 2012), as well as soft skills and hard skills (SUKMANTO et al., 2017). The basic consideration for using the e-learning method is that it is easy to access at unlimited times and places and does not interfere with the work routine of participants with high mobility and daily work activities.

Method

The research design employed by the study is quantitative methods supported with qualitative data with a correlational approach and the cross-sectional research design, where all data is taken at the same time. The sampling method used in this study is convenience sampling. Convenience sampling is a simple sampling method using data from participants who are willing to respond (become respondents) and this technique most widely used in behavioral science research (Gravetter & Forzano, 2012). Quantitative data collection was carried out by distributing questionnaires with Likert scale using the online media *G-form*. In the end, the participants were employees who filled out informed consent by willing to become participants and filled out the entire questionnaire for a total of 267 employees. Data processing used Jamovi statistical software version 2.4.

Predictors of psychological capital was measured using the Psychological Capital Questionnaire developed by Luthan et al. (2007) with a Cronbach alpha value of 0,759. The measuring tool for examining predictors of transformational leadership used the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 2004) with a Cronbach alpha value of 0,93. The measuring tool for examining predictors of internal communication used a measuring tool developed by (Ruck & Welch, 2012). The work engagement measuring tool used the UWES-9 with a Cronbach alpha value of 0,92.

The intervention program was implemented with the concept of self-improvement training using e-learning method. Participants of intervention program was selected using a purposive sampling method totaling 23 employees representing

each level of position in the work sector having the lowest average score of work engagement and a chosen predictor.

The evaluation of intervention program in this study used Kirkpatrick's 4 Level Evaluation Model and limited to level 1 – reaction and level 2 – learning. Level 1 evaluation aims to find out how participants experience about various aspects of the intervention program being implemented, including: materials, facilitators, methods and infrastructure and benefits. Level 2 evaluation is to determine the increasing of understanding or knowledge gained by participants after participating in the program.

Results and Discussion

Results

The number of research respondents was 267 people: 167 male (63%) and 100 female (37%); 156 at 24-39 years (42%) and 111 at 40 – 55 (58%); 206 Bachelor Degree (77%) and 61 Master Degree (23%); 4 Head of Division (2%), 26 level Head of Department (10%), 44 Coordinator (16%), 193 Analysts/Senior Analysts (72%). 51 respondents represented the EPT sector (19%), 47 represented EPMWK sector (18%), 54 represented the Business Support sector (20%), 49 represented the Keukom sector (18%), 52 represented the Secretary sector (20%), 9 represented the PI sector (3%), and 5 represented the Ka & Waka sector (2%).

Table 1. Reliability Test

	Cronbach's α	CrIT
Psychological Capital	0.762	0.234 – 0.398
Transformational Leadership	0.716	0.251 – 0.356
Internal Communication	0.70	0.363 – 0.524
Work Engagement	0.708	0.352 – 0.423

Based on the results of the reliability test, the Cronbach alpha value of the psychological capital variable is 0,762, transformational leadership of 0,716, internal communication of 0,70, and work engagement of 0,708. All Cronbach alpha values are greater than the limit of 0,60, so it can be concluded that the measuring instrument for predictor and outcome variables is declared reliable.

The results of data processing on the r-count value of all question items for all variable measuring instruments are greater than the r table of 0,120. So, all question items on the variables of psychological capital, transformational leadership, internal communication and work engagement are declared valid.

Table 1 Correlation Test Results

	Mean	Std Dev	Psychological Capital	Transformational Leadership	Internal Communication	Work Engagement
Psychological Capital	5.08	0.30	—			
Transformational leadership	4.93	0.23	0.468***	—		
Internal Communications	5.97	0.40	0.491***	0.460***	—	
Work Engagement	6.10	0.35	0.537***	0.568***	0.586***	—

Note. ***
p < .001

The correlation test was carried out by calculating the r value using the Pearson correlation test. The correlation between psychological capital and work engagement has a positive value at $r = 0.537$; $p < 0.001$. This result means that the higher the value of psychological capital, the higher the value of work engagement. Then, the correlation between transformational leadership and work engagement has a positive value with a value of $r = 0.568$; $p < 0.001$. This result means that the higher the value of transformational leadership, the higher the value of work engagement. Meanwhile, the relationship between internal communication and work engagement has a positive value with a value of $r = 0.586$; $p < 0.001$, which means that the higher the value of internal communication, the higher the value of work engagement.

Table 2 Multiple Linear Regression Test Results
Model Coefficients – Work Engagement

Predictors	Estimate	S.E	T	p	ΔR^2	R	R ²	Adjusted R ²
Intercept	8.689	2.9703	2.93	0.004	0.124	0,702	0,493	0,487
Psychological Capital	0.101	0.0231	4.35	< .001	0.175			
Transformational Leadership	0.263	0.0445	5.90	< .001	0.194			
Internal Communication	0.434	0.0692	6.27	< .001	0.493			

The t-test is used to partially test the influence of predictor variables on the outcome variable. Based on the test results above, the t-count value is 4,35 for the psychological capital variable, 5.90 for transformational leadership, and 6,27 for internal communication, greater than t table of 1,97 with a significance of <0,001 so it can be concluded that all predictors have a significant positive effect on work engagement *outcomes*.

The contribution of the psychological capital influence on work engagement is 0,124 (12,4%), the contribution of the influence of transformational leadership on work engagement is 0,175 (17,5%), and the contribution of the influence of

internal communication on work engagement is 0,194 (19,4%). The variable that most significantly influences work engagement in this research is the one with the largest ΔR^2 value, which is the internal communication variable.

Analysis of R^2 (*r-square*) or coefficient of determination is used to find out what the percentage contribution of the influence of the independent variables together is on the dependent variable.

Based on the table 3, the adjusted R^2 value is 0,487. Based on these values, it is known that the contribution of the independent variables psychological capital, transformational leadership and internal communication to the work engagement variable in this study is 48,7%, while the remaining of 51,3% was influenced by other factors (predictors) not examined in this study.

From the results of correlation and regression testing data analysis, it shows that the three predictor variables: psychological capital, transformational leadership, and internal communication positively influence work engagement as an outcome. Psychological capital significantly predicts work engagement ($\gamma = 0,537$; $t = 4,35$; $\Delta R^2 = 0,124$; $p < 0,001$). Transformational leadership significantly predicts work engagement ($\gamma = 0,568$; $t = 5,90$; $\Delta R^2 = 0,175$; $p < 0,001$). Likewise, internal communication significantly predicts work engagement ($\gamma = 0,586$; $t = 6,27$; $\Delta R^2 = 0,194$; $p < 0,001$).

This study aims to provide recommendations of intervention programs for the problems faced by organizations. Of the three predictors that influence the outcome of work engagement, considering the limited resources of time, energy and cost, the intervention program cannot be implemented on all three variables. One predictor was selected for intervention, namely the internal communication variable.

The selection of internal communication predictor variables as intervention variables was based on the results of data analysis, which showed the greatest influence in predicting work engagement outcomes with a t-value = 6,27 and the largest correlation $\gamma = 0,586$ and $\Delta R^2 = 0,194$. It is expected that by selecting internal communication predictors as variables to be intervened, the intervention program implemented can optimally increase work engagement in Organization A.

Internal communication interventions have been proven to increase understanding of the importance of internal communication in organizations (Rahmah et al., 2022), as well as instilling awareness and directing ways of thinking to improving internal communication strategies and tactics in fostering work engagement (Wijaya, 2015).

Intervention Studies

Intervention program focusing on developing internal communication was implemented in order to increase work engagement.

Intervention Variable Framework

The intervention program preparation was started with a search for a theoretical framework that is suitable to the predictor variables and the development focus of the intervention. Studies focusing on internal communication crises find that the factors that influence internal communication in organizations are culture, leadership style, and the knowledge needed to process the information provided (Adamu et al., 2016).

Power-control theory explains why organizations carry out internal communication practices as they do. The theory states that organizations behave the way they do because “people who have power in an organization choose that behavior” (Grunig, 1992). This is a recognition of the role of management in determining how the organization carries out internal communication practices.

Organizational leaders as parties who play an important role in internal communication at the organizational level are also placed as active players in every communication initiative that is designed. The internal communication strategy designed refers to the important role of internal communication in the organization, namely: communication function (strategy, goals, and values), motivation function and idea stimulation (support; identification; voice) and control function (role; performance) (Ruck & Welch, 2012), by paying attention to the frequency, mode, content, and quality of communication (Karanges et al, 2014).

Planned development activities such as training programs can be used for internal communication interventions in organizations (Adamu et al., 2016; Anwarsyah, 2016; Rahmah et al., 2022; Wijaya, 2015).

Intervention Program

The intervention program aims to determine how much the influence of the internal communication strategy training program has on improving internal communication behavior. This training is intended to provide understanding and knowledge regarding internal communication strategies to increase work engagement. The intervention program was carried out in the form of e-learning with the concept of self-improvement training.

Table 5. The Intervention Program

Training Title	A to Z Internal Communication Strategy: Keeping Employees Engaged	
Method	E-Learning	
	Self-improvement Training	
ACTIVITY	MATERIAL	METHOD
Informed Consent	Agreement to join the program	Online form
	Confidentiality Agreement	
Pre-test		Online quiz
Ice Breaking	Games – Myths or Facts?	Online quiz
Introduction	The Introduction of Internal Communication in the Organizations	Interactive-audio-video presentation

Training Title	A to Z Internal Communication Strategy: Keeping Employees Engaged	
Positive Modelling	Success Story	Interactive video
Material	Effective Internal Communication	Interactive-audio-video presentation
Material	Internal Communication: Policy, Role & Functions	Interactive-audio-video presentation
Material	Internal Communication Strategy	Interactive-audio-video presentation
Role Play	Games - Mix and Matches Internal Communication Strategy - channels	Online quiz
Role Play	Action plan from the knowledge and experiences gained	Online form
Review & Reflection	Insight from the learning process	Online form
Post-test		Online quiz
Evaluation	Feedback form the participants of the program	Online form

Table 3Pre & Post Test Descriptive Analysis, Wilcoxon Test

	N	Min	Max	Mean	Std Dev	GAP	p
Pre-test	23	40	80	63.04	12.94	24.34	<0.001
Post-test	23	70	100	87.39	10.09		<0.001

From the results of the tests, it is found that the pre-test scores of the participants are in the range of 40 - 80, while the post-test scores are in the range of 70 - 100. The average pre-test score for all participants shows 63,04, while the average post-test score is 87,39.

Individual evaluation results show that one participant (4%) does not experience an increase in post-test scores. The remaining twenty-two participants (96%) experience an increase in post-test scores. In detail, it can be explained that four participants (17%) increase their post-test score by 10 points, eight participants (35%) increase their post-test score by 20 points, six participants (26%) increase their post-test score by 30 points, two participants (9%) increase their post-test score by 40 points, and two participants (9%) increase their post-test score by 50 points. In general, these results illustrate that the intervention program can increase significantly participants' knowledge and understanding regarding the material presented.

Discussion

The research consists of two study stages. The first study is the hypothesis testing stage. The variables tested in the hypothesis are variables that become problems in Organization A. The second study is the implementation of an intervention program designed to help organizations determine and implement strategies to resolve these problems.

The research results show that psychological capital, transformational leadership, and internal communication have a positive relation to work engagement. The variable that has the greatest contribution in predicting work engagement in this research is the internal communication variable.

This research contributes to enriching previous research literature that discusses factors that influence work engagement in organizations. This research provides an overview of the conditions of work engagement generally within the organization. Theoretically, this research proves that employee work engagement in an organization is influenced by internal factors (psychological states), leadership style, and organizational practices (organization and team factors) as in the classification of predictors of work engagement carried out by (Zahari & Kaliannan, 2023).

The approach chosen to intervene on problems in organizations is the human resource intervention – developmental training approach (Cummings, T. G. & Worley, 2001). The intervention program aims to determine how much the influence of the internal communication strategy training program has on improving internal communication behavior. This training is intended to provide understanding and knowledge regarding internal communication strategies to increase work engagement. Increasing the internal communication skills of employees will encourage existing attachment work and it will form good performance in supporting the achievement of organizational goals and targets.

Self-improvement training design and e-learning methods shows that there is a significant increase for pre and post-test scores. This shows that the intervention program effectively improves internal communication. The e-learning method used to design the training program also contributed to a significant increase in test results. This is because in e-learning method, learning material can be accessed repeatedly if participants need to reconfirm their understanding during the learning process.

E-learning method used has several advantages, including its suitability for self-improvement training learning designs. E-learning provides more flexible access to training programs regarding time and place. This method allows participants to participate in training activities more efficiently and effectively. The e-learning method can also be an alternative for interactive learning activities by following developments in digital technology.

Conclusion

The predictors of psychological capital (individual internal factors), transformational leadership (individual external factors), and internal communication (organizational factors) have a significant positive influence on work engagement outcomes. Among these predictors, internal communication is the most influential variable in predicting work engagement. From the results of the evaluation of the intervention program that has been implemented, there is a significant increase in the pre-test and post-test scores before and after receiving intervention treatment.

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