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The Effect of Psychological Empowerment and Proactive Behavior on Workforce Agility

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Abstract: One of the challenges faced by the manufacturing industry is to increase the level of change in order to remain competitive in the market. Organizations must be able to respond to dynamic changes, a competitive environment in order to continue to survive and develop better. Workforce agility is viewed as a means for firms to survive and flourish effectively in the face of difficulties and competition. In this study, A theoretical model examining the impact of psychological empowerment and proactive behavior on workforce agility was developed and empirically tested. Multiple linear regression revealed that psychological empowerment and proactive behavior were favorably and substantially associated to workforce agility. The results also demonstrated that psychological empowerment has a greater influence than proactive behavior in explaining workforce agility.

Keyword: workforce agility, psychological empowerment, proactive behavior

INTRODUCTION

The existing industrial revolution has its own benefits and challenges for the socioeconomic status and also the readiness of a country to be able to follow the changes that occur. Schmitt (2017) confirmed Five reasons why Industry 4.0 is vital and considered revolutionary in the age of information technology and open market operations. First, Industry 4.0 reduces the load of existing issues for manufacturers by making them more adaptable and sensitive to business developments. Among these challenges are rising market volatility, shorter product lifecycles, greater product complexity, and multinational supply chains. Second, Industry 4.0 facilitates the transformation of modern economies to become more inventive, which increases productivity. Third, it emphasizes the role of customers as co-producers and positions them at the center of all operations. Industry 4.0 places individuals at the core of manufacturing. Workers will be assigned where assistance is required, resulting in increased demand in the workforce for abilities in managing complicated projects, while more flexible employment will also be available. The heavy equipment industry as a means of accelerating economic growth in Indonesia is currently undergoing development. The

acceleration of the growth of various industrial sectors in the country needs to be supported by the availability of appropriate, adequate, effective and efficient work equipment to ensure the achievement of optimal results. Minister of Industry Airlangga Hartarto believes demand for the heavy equipment industry in Indonesia is increasing along with the improvement in commodity prices, the incessant development of the construction sector, and the increasing activity of the mining sector in the country. The Chairman of the Indonesian Heavy Equipment Association in an article in *Bisnis.com* in 2019 said that in the first quarter of 2018, heavy equipment production was recorded at 1,684 units or an increase of 46% on an annual basis. The development of industry 4.0 also makes development and competition in the industrial world more stringent.

To be able to continue to grow and also survive in a competitive and changing business environment, organizations can apply agility in their broad scope ^[10]. Agile manufacturing itself is seen as the ability to survive and develop in a competitive environment, continuous and unpredictable changes by acting quickly and effectively following the market and consumer demands ^[6]. Kidd in 1994 ^[11] mentioned that agile organizations are able to adjust elements in their organizations to be able to quickly adapt to changes that are difficult to predict and uncertain. In line with industry 4.0 which emphasizes the role of individuals or employees as the center of production activities, Muduli (2016) also mentions the same thing that the agility of an organization depends more on the role of individuals than technology.

Workforce agility has a crucial role in developing agility in organizations. Agility in organizations is difficult to achieve without an increase in employee knowledge and abilities ^[20]. Thus to be able to face increasingly diverse challenges and competition, organizations need agile employees. According to Plonka (1997), agile personnel have a positive attitude toward self-development and learning, strong problem-solving skills, are comfortable with change and new situations, can generate new ideas, and are prepared to take on new tasks. Zhang and Sharifi (2000) describe workforce agility as personnel that have the aptitude and wide vision to overcome market share turbulence by capitalizing on the positive aspects of the situation, such as customer preferences. Dyer and Shafer (2003) describe workforce agility as employees' proactive, adaptable, and generative behavior.

Employee agility is affected by a variety of variables. According to Alavi et al. (2014), organizational features such as learning and structure can have an impact on worker agility. Employee autonomy is a key aspect in workforce agility ^[21]. Empowerment and autonomy in decision-making are critical for increasing staff agility ^[20]. This is because staff have the option to cooperate swiftly and take action through decentralized decision making.

Psychological empowerment as intrinsic motivation and self-efficacy can lead to proactive, adaptive and resilient behavior in employees ^[11]. According to Thomas and Velthouse (1990), when people feel empowered, they tend to engage in proactive behavior such as adaptability, resilience, and perseverance. This might lead to people feeling motivated and happy with their work. Employees that feel empowered will have an easier time adapting ^[18]. Internally motivated employees can achieve workforce agility. According to Muduli and Pandya (2018), the most significant variables in the development of agile personnel are meaningfulness, self-determination, and impact. Employees who feel their work has meaning for themselves will be able to make decisions about their work and the behavior will have an impact on the organization is facing challenges and changing conditions.

Spreitzer (1995) demonstrated that psychological empowerment prompted employees to engage in desired behaviors. Employees that feel empowered are more likely to be stimulated to be innovative, manage better with high uncertainty, and have a greater ability to overcome all problems, making them more likely to be perceived as proactive by employers. Proactive behavior is a goal-driven process that consists of proactive goal generation and proactive goal striving. ^[14]. In the workplace, this process can spark employee innovation ^[19], improve job

performance [2] and facilitate career success [24] All of this contributes to the organization's success. People that are active are more likely to seek information and spontaneously bring ideas to make significant changes in their environment. [3]. Proactive employees behave ahead of time with greater anticipatory, agentic, and aware intent.

Based on the discussion above, it can be concluded that psychological empowerment and proactive behavior in employees have an important role in workforce agility in the organization. By having psychological empowerment, employees can achieve high performance, because employees have the ability to provide control over the resources needed to complete their work [12]. Employees also feel more agile in doing their work supported by the flexibility they have to make it easier to adapt to the conditions that they will face. Furthermore, by their own initiative, proactive personnel step forward in fixing organizational problems and making attempts to prevent the reoccurrence of problems using self-defined ways. [13]. This can then increase employee participation in improving the quality of products and processes carried out so that the performance of the organization is increasing. Competition among heavy equipment manufacturers, the existence of high enough fluctuations related to the demand for heavy equipment production requires employees who are able to agile in the face of these rapid and unpredictable changes. Thus, the relationship between psychological empowerment and workforce agility in the heavy equipment industry needs to be seen because it has significance for competitive advantage and the continued development of the heavy equipment industry itself. Researchers will undertake more study on the link between psychological empowerment and worker agility in the context of the heavy equipment business, specifically at PT X, a heavy equipment industry pioneer in Indonesia.

Therefore, we proposed the following hypotheses:

Hypothesis 1: Psychological empowerment will have a significantly positive effect on workforce agility.

Hypothesis 2: Proactive behavior will have a significantly positive effect on workforce agility.

METHOD

Participants and Procedures

The population in this study are employees of PT X who are in groups 3A to 4D. The selection of groups 3A to 4D is because employees with these groups have a greater responsibility in producing improvements and continue to make continuous improvements that are the value of the company. Participants filled out the survey that was given en masse in the meeting room contained in each work area. All participants were informed that the data they provided would be kept confidential and anonymous and the results of data processing would only be used for research purposes. Participants give consent to the conditions that have been explained in the informed consent section then participants complete a questionnaire consisting of socio-demographic characteristics and a questionnaire that measures psychological variables. The majority of the sample (N = 154) has university-level education (40.9%), worked in companies for more than 10 years (53.9%) and men (83.1%).

RESULT AND DISCUSSION

Workforce Agility

Workforce Agility was assessed with a workforce agility scale developed by Sherehiy et al. (2007). This questionnaire measures three dimensions, namely proactivity, adaptability, and resilience. The entire questionnaire consisted of 18 statement items. The dimension of proactivity is measured using 6 items ("I handle obstacles in my tasks before they become serious issues."). The dimensions of adaptability are measured using 6 items ("I easily work on multiple projects at the same time."). The resilience dimension was measured using 6 items ("I remain calm and composed when faced with difficult circumstances.").

Participants were asked to use a 6-point response scale to indicate their level of agreement with the items contained in the measuring scale (1 "strongly disagree," 6 "strongly agree"). To determine the workforce agility index, researchers calculate the total score of all items. The total score ranges from 18-108, the higher the score obtained, the higher the level of agility perceived by participants. In this study, the alpha reliability obtained was 0.883.

Psychological Empowerment

The psychological empowerment questionnaire used in this study was developed by Spreitzer (1995). Measuring instruments in the form of psychological empowerment questionnaires were then adapted and modified by Mangundjaya (2014). This questionnaire assesses four dimensions: meaning ("The work I do is very important to me. "), competence ("I am confident in my ability to do my job."), self-determination ("I have significant autonomy in determining how I do my job. "), and impact ("My impact on what happens in my department is large. "). Each dimension is measured by four items, totaling 16 items in this questionnaire. Participants were asked to use a 6-point response scale to indicate their level of agreement with the items contained in the measuring scale (1 "strongly disagree," 6 "strongly agree"). To determine the psychological empowerment index, researchers calculated the total score of the whole item. The total score ranges from 16 - 96, the higher the score obtained, the higher the psychological empowerment felt by the participants. In this study, the alpha reliability obtained was 0.915.

Proactive Behavior

The Parker and Collins (2010) Proactive Behavior Scale was used to assess proactive behavior. This questionnaire covers four dimensions: taking charge, individual creativity, problem prevention, and voice. The whole questionnaire consisted of 16 statement items. The dimension of taking charge is measured using 4 items ("I am trying to implement solutions to pressing organization problems."). The dimensions of individual innovation are measured using 4 items ("I search for new techniques, technologies and/or product ideas."). The dimensions of problem prevention are measured using 4 items ("I spend time planning ways to prevent recurring problems."). Voice dimensions are measured using 4 items ("I bring forward fresh ideas or adjustments in procedures.").

Participants were asked to indicate the frequency with which they made the statements contained in the measurement scale using the 6-point response scale (1 "never", 6 "always"). To determine the index of proactive behavior, researchers calculate the total score of all items. The total score ranges from 16 - 96, the higher the score obtained, the higher the proactive behavior perceived by participants. In this study, the alpha reliability obtained was 0.913.

Results

Table 1 showed the descriptives and intercorrelations. Multiple regression was used to test the entire hypothesized model. First, what is done is to test whether the psychological empowerment proactive behavior variable has a relationship with workforce agility. All variables in the study were correlated with a significance level of $p < 0.005$. Psychological empowerment has the greatest correlation with workforce agility compared to proactive behavior.

Table 1
Intercorrelations, Means, and Standard Deviations for Study Variables

Variable	M	SD	1	2	3
<i>Workforce Agility</i>	81.08	8.56	1.00		
<i>Psychological Empowerment</i>	68.49	11.21	.574**	1.00	
<i>Proactive Behavior</i>	72.02	9.3	.524**	.544**	1.00

** significant at the 0.005 level (one-tailed).

Multiple linear regression was used to predict workplace agility based on psychological empowerment and proactive behavior. We regarded workforce agility to be the dependent variable, with psychological empowerment and proactive behavior serving as the independent variable. A significant regression equation was discovered ($F(2, 151) = 48.925, p < .000$), with an R^2 of .393. Both psychological empowerment and proactive behavior were strong predictors of worker agility. We discovered that psychological empowerment is the most influential parameter.

Table 2
Regression findings for psychological empowerment, proactive behavior, and workforce agility

Variable	β	T value	Sig.
Psychological Empowerment	0.401	5.428	0.00
Proactive Behavior	0.301	3.981	0.00
R^2	0.393		
F for change in R^2	48.925		

Discussion

To recently, research on workforce agility has mostly focused on techniques that can promote workforce agility, with little emphasis on empirical testing. This study examines empirical data supporting The effects of psychological empowerment and proactive behavior among employees as an independent variable in boosting workforce agility. As expected, psychological empowerment and proactive behavior are positively associated to workforce agility. Employees with a better perception of empowerment and are required to develop proactive behavior at work being more likely to exhibit workforce agility than others. When psychological empowerment and proactive behavior are measured together, they have a greater influence on worker agility than when examined individually.

Furthermore, the findings revealed that psychological empowerment has a greater influence than proactive behavior in explaining workforce agility. Employees become more agile, have a high commitment, high involvement in the work when the work they do has a meaningful value and goals owned by the employee. To some extent, these results validate the findings that feeling empowered is an antecedent of intrinsic motivation, which drives the individual's behaviour. ^{[5][9]}. People who develop proactive behavior in their work, more likely to try to play an effective part in organizational performance by leveraging chances, new events, and their inventiveness to attain their job objectives. People in production develop new competencies and abilities and teach these capabilities to their colleagues via representing knowledge and information. ^[7]. This may further increase agility.

CONCLUSION

Organizations can address the issues of change in a variety of ways, one of which is the role of staff agility. An agile workforce is proactive, adaptive, and resilient, with a positive attitude to learning and self-development, a sense of ease when confronted with new difficulties and changes, the capacity to produce new ideas, creativity, and the willingness to assume new tasks. Psychological empowerment, such as intrinsic drive and self-efficacy, can increase workplace agility. Proactive conduct encourages employees to seek knowledge and provide ideas on their own initiative, allowing them to be more nimble at work. Workforce agility cannot be achieved unless people are organically motivated.

The results of this research demonstrate that, among psychological empowerment and proactive behavior that contribute to workforce agility, empowerment is the most important

element. Employees who feel competent in their work and are confident in handling workplace difficulties in an imaginative and proactive manner expand their talents beyond the essential skills required in their job. Furthermore, individuals that have a strong sense of self-determination might be internally motivated, enabling them to contribute to the business in a proactive and flexible manner. Finally, employees who believe their job has an impact on the organization's success are more likely to innovate to improve the quality of their work.

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