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The Drive to Defend Employees in Mechanical Engineering Firms

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Abstract
According to Lawrence & Nohria (2002) [4], the drive to defend is fulfilled when there is greater transparency, fairness, and justice across all processes. To emphasize these characteristics, performance management and resource allocation processes are used. These processes make the assessment and decision process transparent, fair, and clear. The study's objective is to test the drive to defend employees in mechanical engineering firms in Hanoi and neighboring provinces. Based on the previous research and the actual situations, it has been recognized that the critical role of human resources is in developing the mechanical engineering industry, especially in developing countries such as Vietnam. In the next section, the study presents background information to promote the research. Improving the drive to defend has motivated workers to work enthusiastically. That is one of the solutions to retaining workers. We use qualitative and quantitative research methods. Quantitative research methods were carried out with SPSS software, including descriptive statistics, Cronbach's alpha, and EFA analysis. On the basis of a review of previous studies and after interviewing experts, the study has identified and analyzed six scales (component attributes) of the drive to defend employees in mechanical engineering firms in Hanoi and neighboring provinces. Based on this result, the study proposes some recommendations to improve the quality of human resources and business performance in mechanical engineering firms in Hanoi and neighboring provinces.

Keywords: The Drive to Defend (D), Mechanical Engineering Firms, Employees, Human Resources, Economics

JEL Classification Code: M10, M51, M52, M41, F65

1. Introduction

Mechanical engineering, equipment, and machinery manufacturing is an industry that applies knowledge of physics and engineering to design, manufacture, and maintain all types of machinery and mechanical equipment, thereby contributing to improving the quality of machinery and equipment and the high productivity and economic value of modern society.

Human resources in mechanical engineering firms are eager to learn and quick to adapt to new technologies from the 4.0 industrial revolution, thereby helping to improve the quality of human resources and create and integrate innovation. However, the training of human resources from vocational schools, colleges, and universities to businesses is not synchronized, updated, and innovated to equip the labor force with basic skills as well as help workers. Learn enough capacity to be able to master technology as well as new operating methods. Therefore, there is a lack of qualified human resources at mechanical engineering firms.

With the strong impacts of the 4.0 industrial revolution, mechanical engineering firms face many challenges in improving technology, keeping up with trends, and maintaining infrastructure quality to be able to participate in the supply chain globally, as well as great competitive pressures on countries in the region as well as around the world. In addition, improving the qualifications and skills of workers is also one of the challenges for these firms; therefore, improving employee work motivation, including the drive to defend, is one of the solutions for mechanical and machine manufacturing firms.

The study's objective is to test the drive to defend employees in mechanical engineering firms in Hanoi and neighboring provinces. Based on the previous research and the actual situations, it has been recognized that human resources are important for firms. In the next section, the study presents background information to promote the research. Section 3 outlines the empirical approaches. Specifically, the study uses SPSS software to include descriptive statistics, scale reliability analysis through Cronbach's alpha coefficient, and EFA analysis. The estimated results are then presented in Section 4. Finally, Section 5 provides some discussion and implications.

2. Literature Review and Theory

The drive to defend is the need to protect oneself, which is the basis for action against external threats. These four factors are the foundation for providing complete and comprehensive information about employee work motivation.

The drive to defend oneself only appears when there is disagreement; the stimulus to protect oneself can be the result of some threat to the organization, group, or individual. In this case, it is best for the organization to create an environment that minimizes or eliminates the source of these threats. When the drivers of disagreement are controlled, efforts to protect themselves help employees effectively address real threats.

The need to defend comes from the instinctive need to protect one's possessions, achievements, relationships with family and friends, ideas, and beliefs from dangers from without (Nohria *et al*., 2008) [5]. As a result, organizations have a duty to create and promote fairness and justice, be consistent with common goals, have clear goals and intentions, and allow employees to express their ideas and opinions. so that employees feel safe and confident. Without protection and motivation, employees express strong negative emotions such as fear and resentment. This dynamic explains the resistance to change that employee feel when experiencing corporate change.

According to Lawrence & Nohria (2002) [4], the drive to defend is fulfilled when there is greater transparency, fairness, and justice across all processes. To emphasize these characteristics, performance management and resource allocation processes are used. These processes make the assessment and decision process transparent, fair, and clear.

According to Lawrence and Nohria (2002) [4]; Nohria *et al*. (2008) [5], reward systems satisfy the drive to acquire, culture satisfies the desire to connect, work design satisfies the desire to comprehend, and performance management and resource allocation procedures satisfy the desire to defend. Organizational performance is optimal when these organizational levers are applied to satisfy staff drives and motivations.

Table 1: Observed variables of the drive to acquire employees in commercial banks in Hanoi

Code	Scale
The drive to defend employees in mechanical engineering firms (D)	
D1	The mechanical engineering firm where I work has a clear performance evaluation system.
D2	I am working in a healthy and comfortable environment.
D3	The performance evaluation system of the mechanical engineering firm where I work is fair.
D4	Employees are treated equally by managers.
D5	I believe in the perspective of the mechanical engineering firm where I work regarding the performance evaluation system.
D6	My colleagues and I have the right to speak up at the mechanical engineering firm where I work.

3. Research Methods

Research Database

The scope of the study is to evaluate the drive to defend employees in mechanical engineering firms in Hanoi and neighboring provinces.

Variables Description

The research object is to study the drive to defend employees in mechanical engineering firms. The study examines the personnel fluctuations in mechanical engineering firms. The study has 6 variables: D1, D2, D3, D4, D5, and D6.

Scale and Design of Questionnaires

The scale used in this study is a 5-point Likert scale ranging from 1 to 5. I totally disagree with 5. Strongly agree. The statements in each scale are inherited from previous studies and expert opinions to correct the wording and then adjusted to suit the context of mechanical engineering firms in Hanoi and neighboring provinces at the present time, based on the results of expert interviews and group discussions. The drive to defend employees in mechanical engineering firms in Hanoi and neighboring provinces is measured by six observed variables.

Data Processing

Quantitative research methods supported by SPSS software include descriptive statistics, scale reliability analysis through Cronbach's alpha coefficient, and EFA analysis.

4. Results

4.1 Descriptive Statistics

Table 2 indicates that the respondents agree with the dependent variables of the drive to defend employees in mechanical engineering firms, where six attributes were quite high. All six attributes were rated at an average of 3.77 or higher.

Table 2: Descriptive analysis of attributes

Code	N	Mini	Max	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
D1	190	1.0	5.0	3.84	0.948	-0.872	0.176	0.742	0.351
D2	190	1.0	5.0	3.77	0.846	-0.662	0.176	0.525	0.351
D3	190	1.0	5.0	3.89	0.779	-0.823	0.176	1.112	0.351
D4	190	1.0	5.0	3.92	0.857	-0.858	0.176	0.891	0.351
D5	190	1.0	5.0	3.89	0.844	-0.694	0.176	0.400	0.351
D6	190	1.0	5.0	3.98	0.797	-0.787	0.176	1.258	0.351
Valid N (listwise)	190			3.88					

The drive to defend was assessed by employees participating in the survey as being at a high level, with an average score of 3.88. This shows that post-merger mechanical engineering enterprises have created a good working environment and a clear and objective performance evaluation system. In particular, employees are treated equally by managers, and my colleagues and I have the right to speak up at the mechanical engineering firm where I work. These are clearly two contents that reflect the very high motivation of employees to protect, with an average score of 3.92 and 3.98, respectively. Because these are the bases for protecting employees, helping employees feel secure in their work and complete their jobs.

4.2 Cronbach's Alpha

The drive to defend employees in mechanical engineering firms has been measured by Cronbach's alpha. The results of testing Cronbach's alpha for attributes are presented in Table 3 below. The results also show that attributes of the variables have Cronbach's alpha coefficients that are greater than 0.6, and the correlation coefficients of all attributes are greater than 0.3. So, all the attributes of the variables are statistically significant (Hoang & Chu, 2008; Hair *et al*., 2009; Hair *et al*., 2014) [3, 1, 2].

Table 3: Results of Cronbach's alpha testing of attributes and item-total statistics

Cronbach's Alpha	N of Items
.903	6

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
D1	19.45	12.227	0.640	0.902
D2	19.51	12.061	0.781	0.878
D3	19.39	12.536	0.766	0.882
D4	19.37	12.128	0.755	0.882
D5	19.39	12.177	0.760	0.881
D6	19.31	12.647	0.721	0.887

4.3 Exploratory Factor Analysis (EFA)

Next, tables 4, 5, and 6 show that exploratory factor analysis (EFA) was conducted through component analysis and variance.

The results of factor analysis in Table 4 show that KMO is 0.911, which is greater than 0.5 but less than 1. Bartlett's testimony shows sig. = 0.000 < 0.05, which means variables in the whole are interrelated (Hoang & Chu, 2008; Hair *et al*., 2009; Hair *et al*., 2014) [3, 1, 2].

After implementing the rotation matrix, six components of the defend employees in mechanical engineering firms with a factor load factor greater than 0.5 and eigenvalues greater than 1 were identified, and the variance explained was 67.928% (see tables 5 and 6). These statistics demonstrate that research data analysis for factor discovery is appropriate. Through the quality assurance of the scale and the test of the EFA model, we have identified six components of the defend employees in mechanical engineering firms (Hoang & Chu, 2008; Hair *et al*., 2009; Hair *et al*., 2014) [3, 1, 2].

Table 4: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.911
Bartlett's Test of Sphericity	Approx. Chi-Square	652.827
	Df	15
	Sig.	.000

Table 5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.076	67.928	67.928	4.076	67.928	67.928
2	0.529	8.815	76.743			
3	0.447	7.457	84.200			
4	0.357	5.944	90.144			
5	0.311	5.176	95.320			
6	0.281	4.680	100.000			
Extraction Method: Principal Component Analysis						

Table 6: Component Matrix[a]

D	Component
	1
D2	0.858
D3	0.848
D5	0.842
D4	0.839
D6	0.812
D1	0.740

5. Discussion and Implications

As a result, efforts are made to establish organizations that support equity and justice, have unambiguous purposes and goals, and permit staff members to voice their thoughts. Employees feel safe and assured as a result of satisfying their desire to defend. Employees who lack this motivation exhibit significant negative feelings like dread and contempt.

When there is greater openness, fairness, and equity throughout all processes, the desire to defend is satisfied. Performance management and resource allocation procedures are used to highlight these qualities. The review and decision-making processes are transparent, equitable, and unambiguous thanks to these procedures.

While adopting some traits of a bureaucratic culture may give the necessary degree of fairness and transparency to satisfy the drive to defend, introducing some traits of an innovative culture may be sufficient to provide meaning to

satisfy the drive to grasp.

When employees at mechanical engineering firms complete a task, they feel a small sense of accomplishment, but when they learn that their work has helped others or the firm, it brings value. For firms, employees have more motivation to work. Therefore, mechanical engineering firms should have appropriate solutions for employees to have meaningful work.

Some employees at mechanical engineering firms who perform the same work day in and day out may experience difficulties. Then they become less motivated, less creative, and dissatisfied with their work. Therefore, mechanical engineering firms should regularly organize skills training sessions for employees and share the experiences of leaders and experienced employees to help them develop more in their work through discussions. Enterprises support employees in improving their skills, allowing them to learn, develop themselves, and advance. Employees feel that they are important to the business, and the business sees their potential. This contributes to making employees' work performance more stable, improving job satisfaction, and thereby bringing many benefits to firms.

Employees need to know how they are performing in their work environment, what they are doing well, and where they need to improve. Providing regular and constructive feedback and recognition to employees will easily motivate workers as they become more confident in certain aspects of their work and more committed to addressing their shortcomings. Additionally, through feedback and recognition, employees know that leaders see and appreciate their efforts. Receiving the recognition they deserve gives them a sense of worth in the workplace, increasing self-esteem and enthusiasm and boosting morale, which is key to improved performance and engagement.

Most employees at mechanical engineering firms have a need to be listened to by management, colleagues, and others, which helps employees feel respected and their opinions valued. When employees feel heard, they feel motivated and do better work. Listening to employees does not mean that management can fix every problem, that it does not mean that it necessarily agrees with employees on anything they are discussing, or that it does not mean that they have suggestions. Which is a sincere way to understand employees' feelings.

At most mechanical engineering firms, many employees do not understand or do not fully understand the general goals of the firm, which is also one of the reasons that affect employee motivation. Therefore, mechanical engineering firms should set common goals for the whole firm to attract employee participation and help them succeed. Bringing people together to pursue common goals is important for moving forward, sustaining, and growing a business over the long term. From there, it helps employees be motivated and feel their work is valuable. Talented employees will perform and go above and beyond what you expect of them.

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