The Effect Of Work Motivation And Transformative Leadership On Freelancer Innovative Behaviour In The Oil And Gas Mining Industry Mediated By Absorptive Capacity

Eduard Sinaga1*, Suparto Wijoyo2, Yetty Dwi Lestary3, Adrid Indaryanto4, Bambang Dwi Harijadi5,
1,2,3,4,5 Universitas Airlangga Sekolah Pascasarja, Indonesia

ABSTRACT
Freelancers, defined as non-employees or independent contractors, provide company comprehensive by utilizing freelancers to be more flexible, agile, and innovative. Employee innovative behavior is an essential foundation in supporting the company's success. In previous research, there has not been much discussion of the competitive advantage of a freelancer from the perspective of an individual freelancer. Innovation can arise from innovative work behavior using the absorptive capacity to acquire knowledge. This piece has an objective to design and analyze the impact of work motivation and transformative Leadership on freelancer employees innovative behavior in the oil and gas mining industry mediated by absorptive capacity.

Keywords: Work motivation, Transformative Leadership, Absorptive capacity, Employee Innovative Behavior, Freelancers

Introduction
Organizations pay attention to site selection to gain an advantage and increase competitiveness with a quality supply and workforce network (Mariotti et al., 2019). Organizations seek performance excellence and thrive in a world where innovation is prized above all else (Bourini, 2021). You need to innovate to stay competitive and deliver on your customers' expectations. Freelancers, defined as non-employees or independent contractors in Batam, are still not seen as a solution for companies that can support the organization because they look like a source of cheap and unskilled labour (Burke & Cowling, 2020). BPS data related to employment for February 2020-February 2022 has not declared freelancers as a formal and informal workforce; outside Batam companies that collaborate with skilled freelancers, companies are increasingly exploiting freelancer services to obtain a competitive edge (Kozica et al., 2014). Employee innovative behaviour is essential in supporting company success; creative employee behavior is behaviors creating, introducing, and applying ideas intentionally within the scope of work roles, groups, or organizations (Janssen, 1998; Scott & Bruce, 1994). To be comprehensive, employees must have novel perceptions that may be applied and are essential in the workplace (Liu & Phillips, 2011); innovation is considered an essential source of competitiveness, and from an individual perspective, innovation can arise from innovative work behavior by using absorptive capacity as restricted by Bourini (2021) as “the ability to learn from external knowledge through the process of identifying, assimilating, and exploiting knowledge.” Employees’ propensity to take risks and try new things in the workplace is strongly influenced by the degree to which they like their job (Bhatnagar, 2012; Schaufeli & Bakker, 2004), which in turn is directly tied to their work motivation (Hackman, 1980). Transformational Leadership is not only a supporter of the process of creat-

Eduard Sinaga
Universitas Airlangga Sekolah Pascasarja, Indonesia
eduard.sinaga98@yahoo.co.id
eduard.sinaga-2021@pasca.unair.ac.id

Received: Sep-07-2023 Revised: Dec-15-2023 Accepted: Jan-11-2024
ing absorption, assimilation, and application of knowledge but is incarnate as project’s success element with the efforts of leaders to explore beneficial work behaviours (Aga et al., 2016).

Literature Review
The foundations of motivation theory may be found in the study of both extrinsic and intrinsic drives (Chang et al., 2021; Ryan & Deci, 2000). The motivation that comes from outside of an individual, or extrinsic motivation, is different from intrinsic motivation, which originates from inside an individual, into motivation. This was found by Ryan and Deci (2000). “Self-determination” is defined by Ryan and Deci (2000) as the state of being free from the influence of others’ expectations or demands on one’s actions. According to research by Ryan and Deci (2000), people are more likely to take action when their core psychological demands for competence, autonomy, and relatedness are met. Challenge seeking, task enjoying, pay seeking, and recognition seeking are presented by Miao, Evan, and Zou (2007) as the four components of extrinsic and intrinsic job motivation. Transformational Leadership consists of two syllables, namely Leadership (Leadership) and transformational (transformation); transformational Leadership is the process that transforms and aids in transforming the individual (Bernard M. Bass, 2008). Transformational Leadership tends to be optimistic. Leaders refer to common interests with followers by engaging followers closely without using power but using morals, transforming individuals, groups, organizations, and societies with the following components (Afshari, 2022; Bernard M. Bass, 2008; Kasimoğlu & Ammari, 2020; Ngo et al., 2022; Shafi et al., 2020): 1). Cohen, Wesley, and Absorptive capacity are defined by & Levinthal (1990) as the competence of assessing new knowledge, absorbing it, and utilizing it for advancing business goals. Research into absorptive ability, both theoretical and empirical, seems to have its origins in the setting of well-established businesses (Qian & Acs, 2013) (Grünfeld, 2003). Absorption capacity was conceived as a practical idea. Knowledge integration encompasses the ability to learn, assimilate, apply it to new situations, and then utilize that learning to create something new or break into a new market (Agust et al., 2022). To wit: (Cohen, Wesley, Levinthal, 1990). Employees’ creative actions are manifestations of their innate inventiveness. Worker innovation is defined as “the practice of generating and implementing novel ideas to enhance performance or address workplace challenges” (Yuan & Woodman, 2010). The importance of creative behavior is growing as the economy, the world, and the needs for competitiveness all undergo rapid shifts (Bourini, 2021). In particular, the ability of workers to think creatively while on the job is essential to the success of the business. Employees’ contributions to the innovation process may be summed up in a multi-dimensional umbrella concept called “innovative behavior” (J. P. J. De Jong & Hartog, 2007). Innovating conduct may be broken down into four categories: The first step is “idea discovery,” which includes steps 2, 3, and 4: create, promote, and put into action ideas.

Work Motivation to Absorptive Capacity
The absorptive capacity of examining the capability of individuals in terms of recognizing, assimilating, and exploring new knowledge from forms of work motivation, namely intrinsic and extrinsic. A significant positive relationship between absorptive capacity and work motivation was found (Yildiz et al., 2019). Hypothesis 1: there is an influence of work motivation on absorptive capacity

Transformative Leadership to Absorptive Capacity
Leaders influence every side of the learning system, having a crucial role in encouraging learning through the absorption, assimilation, and application of knowledge (Ferreras Méndez et al., 2018) (Ávila, 2022; Cohen, Wesley, Levinthal, 1990; Qian & Acs, 2013).

Work motivation to workers’ innovative behavior
The relationship between employee psychological needs is positively related to innovative employee behavior through work motivation (Z. Wang et al., 2021). Hypothesis 3 Work motivation has an influence on workers’ creative behavior
Employee innovative behavior positivity related to job performance also obtained significantly high innovative behavior (Zhang et al., 2018). Hypothesis 4 There is an influence of transformative Leadership on innovative employee behavior.

Absorptive capacity for employee’s innovative behavior
Absorptive capacity pumps the spirit to improve innovative behavior by providing employees to gain external knowledge and good communication and encouraging the exploitation of external and internal expertise Z. Wang et al. (2021); Moon et al. (2019); Saether (2019); Hypothesis 5 There is an influence of absorptive capacity as mediation on the innovative behavior of employees.

Methods
Conceptual Framework
Based on the description of the background and the results of previous research, a conceptual framework is presented as follows:

Research Design
In this work, we use quantitative techniques. Testing hypotheses is a primary goal of quantitative research, which measures and analyses numerical data to conclude the world. Research that uses a logical strategy to examine and ultimately traditional, optimistic, experimental, or empirical paradigms (Sugiyono, 2017).

Population and Sample
Respondents within the research are freelancers or freelance employees who work in the oil and gas industry, as many as 50 freelance employees. In this study, saturated sampling or census is used because the response was below 100 for the total population. The following are the variables used: X1) Work Motivation, X2) Transformative Leadership, Z1) Absorptive Capacity, and Y) Employee Innovative Behavior.

Research Instruments
This research instrument uses a questionnaire instrument. The questionnaire used is in the form of a closed questionnaire, which aims to obtain a general picture of variables, a questionnaire to measure variables using a Likert scale. Data collected from the questionnaire will be exported to Excel and utilized as raw data for analysis in SPSS version 25.

The questionnaire preparation on criteria derived from existing theories and those carried out by previous researchers. The study will study five variables, namely transformative leadership arranged with a score. The rating scale is used to categorize how motivated an employee is to do their job.

Validity Test
The reliability of the items is examined by comparing the highest item score to the aggregate item score. The obtained correlation coefficient is evaluated in light of established criteria for reliability and validity. Sugiyono (2017) suggests the following requirements and criteria for this test: 1) If r 0.30, then the questionnaire questions are legitimate. 2) If r ≤ 0.30, then the question from the questionnaire is invalid The study used 50 respondents with a table r of 0.2787, the signification rate for a two-way test.

Reliability Test
Test-retest (stability) equivalent testing is performed together. Table 5 shows the Cronbach Alpha numbers of each variable, indicating a number greater than 0.60. Therefore, it concludes that the research instruments used to measure each variable’s characteristics are reliable.

Normality Test
The normality test is helpful to see whether the residual value (the gap between the original data and the forecast result data) distributes normally or not. Decision-making guidelines with the Kolm-
The following conditions:

<table>
<thead>
<tr>
<th>Question Items</th>
<th>Coefficient of Correlation (Calculated value of r)</th>
<th>Table</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>WM1</td>
<td>.628</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM2</td>
<td>.712</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM3</td>
<td>.714</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM4</td>
<td>.664</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM5</td>
<td>.817</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM6</td>
<td>.588</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM7</td>
<td>.659</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM8</td>
<td>.766</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM9</td>
<td>.612</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM10</td>
<td>.737</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM11</td>
<td>.470</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM12</td>
<td>.893</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM13</td>
<td>.737</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM14</td>
<td>.578</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>WM15</td>
<td>.517</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Table 1
Research Instrument Validity Test Results (X1)

<table>
<thead>
<tr>
<th>Question Items</th>
<th>Coefficient of Correlation (Calculated value of r)</th>
<th>Table</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL1</td>
<td>.823</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL2</td>
<td>.865</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL3</td>
<td>.658</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL4</td>
<td>.738</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL5</td>
<td>.593</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL6</td>
<td>.816</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL7</td>
<td>.853</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL8</td>
<td>.666</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL9</td>
<td>.808</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL10</td>
<td>.816</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL11</td>
<td>.848</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL12</td>
<td>.784</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>TL13</td>
<td>.784</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Table 2
Research Instrument Validity Test Results (X2)
<table>
<thead>
<tr>
<th>Question Items</th>
<th>Coefficient of Choleration (Calculated value of r)</th>
<th>( r_{table} )</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC1</td>
<td>0.750</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC2</td>
<td>0.853</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC3</td>
<td>0.642</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC4</td>
<td>0.632</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC5</td>
<td>0.713</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC6</td>
<td>0.827</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC7</td>
<td>0.855</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC8</td>
<td>0.868</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC9</td>
<td>0.943</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>AC10</td>
<td>0.777</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
</tbody>
</table>

**Table 3**

Results of The Validity Test of Research Instruments (Z)

<table>
<thead>
<tr>
<th>Question Items</th>
<th>Coefficient of Choleration (Calculated value of r)</th>
<th>( r_{table} )</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIB1</td>
<td>0.794</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB2</td>
<td>0.890</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB3</td>
<td>0.851</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB4</td>
<td>0.557</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB5</td>
<td>0.750</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB6</td>
<td>0.886</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB7</td>
<td>0.823</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB8</td>
<td>0.833</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB9</td>
<td>0.881</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
<tr>
<td>EIB10</td>
<td>0.831</td>
<td>0.2787</td>
<td>Valid</td>
</tr>
</tbody>
</table>

**Table 4**

Research Instrument Validity Test Results (Y)
Normality test results using Kolmogorov-Smirnov method are as follows:
Based on the results of the spss version 25 output shown in table 28 above, the value of Asyimp Sig. (2-tailed) 0.200, more significant than the probability value (p) of 0.05. conclude that the research data came from a normally distributed population.

Data Collection Techniques
There are certain data collection methods that are utilized within the research. Questionnaires or questionnaires are data collection techniques that give respondents a set of questions or written statements to answer. Documentation and research data are obtained from reports and other documents, which are closely related to the object of research and reading literature as the theoretical basis for this research.

Data Analysis
To manage the data using the SPSS version 25, quantitative analysis using inferential statistics with correlational analysis (Sugiyono, 2017). The stages in conducting a quantitative correlational analysis are as follows:
of 0.728. estimates that $X_1$ and $X_2$ account for 72.8% of $Y$’s effect, while other factors account for the remaining 27.2%. $e_1 = (1-0.728) = 0.521$ is a formula that may be used to get its value.

**Regression Model 1**

![Diagram of Regression Model 1](image1)

**Figure 2. Model Regression Results**

**Regression Model 2**

![Diagram of Regression Model 2](image2)

**Figure 3. Model 2 Regression Results**

**The Outcomes of Regression Model 2**
The significance levels of the three variables in Model 2’s Regression Output, Coefficients section are $X_1= 0.514$, $X_2 = 0.325$, and $Z = 0.002$, with $X_1$ and $X_2$ being larger than 0.05 and $Z$ being less than 0.05, respectively. There is no discernible link between $X_1$ and $X_2$, and $Y$. $Z$ is a crucial factor in determining $Y$. How much of a value for R Squared is listed in the table.

**Discussion**

Analyst’s influence of $X_1$ on $Z$: From the analysis above, the $X_1$ signification was obtained by $0.000 < 0.05$, and it resulted in the significant direct influence of Work Motivation on Absorptive capacity. Analyst’s influence of $X_2$ on $Z$: From the analysis above, the $X_2$ signification was obtained by $0.030 < 0.05$, and it showed that significant influence was generated by the Transformative Leadership on Absorptive capacity. According to the study, Work Motivation did not significantly affect Employee Innovative Behaviour since $X_1$’s significance was attained at $0.514 > 0.05$. Analysts impact $X_2$ and $Y$: The study above found no statistically significant relationship between Transformative Leadership and Employee Innovative Behavior ($X_2 = 0.325 > 0.05$). The foregoing research shows that there was a substantial effect of Absorptive ability on Employee Innovative behaviour, with a $Z$ signification of 0.002 0.05. Examining how $X_1$ via $XZ$ affects $Y$, we find that $X_1$ directly impacts $-0.173$ on $Y$. In contrast, $X_1$ against $Z$ multiplied by Beta’s value $Z$ against $Y$ equals the indirect impact of $X_1$ on $Y$; in this case, $0.565$. As a result, the combined direct and indirect impact of $X_1$ on $Y$ is $(-0.173) + 0.565 = 0.392$. Therefore, it can be stated that Work Motivation significantly impacts the mediation of Absorptive ability on Employee Innovative Behavior, suggesting that indirect effect is stronger than direct influence.

**Acknowledgments**

Transformational Leadership comes under those vital aspects affecting absorptive capacity’s antecedents (Ferreras Méndez et al., 2018). The results of the study showed that the support of the influence of work motivation on Absorptive capacity, especially the motivation of individual freelancers, is powerful in increasing their absorptive capacity (Yildiz et al., 2019). Still, work motivation in this study has no significant influence on Employee Innovative Behaviour, so it does not support empirical research on individual motivation (intrinsic), which is considered very important for credibility and Employee Innovative Behaviour (Saether, 2019).

The mediation effect of other factors on Worker Innovative Behavior and work motivation has effectively sought to improve innovation through the mediation process against EIB. EIB has
become very beneficial for service companies and also for employees individually, encouraging the development of civility (Li & Hsu, 2016) as a novelty in this study. Absorptive capacity, as a mediation variable, has strengthened the relationship of work motivation to EIB significantly. The innovative involvement of freelancers is abstracted like a course with a variety of individual behaviors to improve competence and personal development to contribute to supporting the company’s agility and flexibility in the oil and gas mining industry.

Bourini (2021) suggests that the effect of Absorptive capacity mediation on Employee Innovative Behaviour strengthens leadership relationships and provides detailed knowledge for leaders on encouraging and improving innovative employee behavior. Supports the findings in this study that transformative Leadership seen by freelancers as users of services for the expertise and skills of freelancers in supporting company activities has a strong and significant relationship to the innovative behavior of freelancer employees and explores or applies new methods.

Research Contributions
Theoretical implications: freelancers are multiplying, and the innovative behavior of freelancers to increase their competence in competing with freelancers globally increases curiosity about what companies need in the international-class oil and gas mining industry. Thus, freelancers have a vision and imagination for how they can capture the development of new knowledge, make it a competency, and be certified for this new knowledge, which leads to sustainable, innovative behavior through better absorption capacity.

This study aids in the development of literature within the gas and oiling sector by integrating work motivation with absorptive capacity as a reference for leaders to be capable of adopting transformative Leadership to develop innovative behaviors of freelancer employees as supporters of the organization to gain comprehensive advantage through its agility and flexibility to get employees to fill positions that require workforce skilled who are competent and certified at the international level.

Research Limitations
The limitations of research on the mining industry are in Kepuluan Riau, they have not been able to get an understanding of other regions, and the limits of respondents, which are only 50 respondents, have not been able to get maximum results. Freelancers work in different companies, so leaders in each company will have different leadership styles. So there are limitations to leadership styles that affect the innovative behavior of freelancers, so research in the future requires research with more than one leadership style to close the gaps in this study.

REFERENCES


In Research in Organizational Behavior (Vol. 10, pp. 123–167).


Fiedler, F. (2015). organization Behaviour 1. In Organizational Behavior 1: Essential theories of motivation and leadership. https://doi.org/10.1007/978-3-319-31816-5_2227-1


Id, H. A. L. (2015). Innovation in services and the attendant old and new To cite this version : HAL Id : halshs-01133746.


Udin, U. (2022). Knowledge Sharing and Innovat-
