Intrinsic And Extrinsic Motivation In Construction Project Team

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Abstract – The secret to a high-performance team is its capacity to formulate and agree on essential goals, objectives, and project plans while using the appropriate tools, techniques, and processes to carry out its work plan. One factor affecting team performance is each member's desire to work hard and be highly productive to achieve efficiency. This study uses a small-scale project in Denpasar City to investigate the relationship between team performance and motivation in building projects. The quantitative descriptive statistics study was carried out using partial least squares with SmartPLS 3.0. The analysis shows that extrinsic motivation, as opposed to self-actualization, communication, and other aspects, has a more substantial impact on increasing the motivation of the project team's workforce. Pay and fair compensation are necessary when handling projects for small contractors. Help increase employee motivation while enhancing team performance.

Keywords – Motivation, Project Team, Intrinsic, and Extrinsic

I. INTRODUCTION

1.1 Background

The goal of human resource development is typically to support independent professionals with strong work ethics. It is intended to achieve adequate staffing with career growth based on work performance, professional talents, expertise, and skills. This is by staffing development. The workforce will become more conscious of the need to increase work productivity and work ethics due to efforts to improve the quality of education level of various talents. An incentive is also required to increase the welfare and calibre of the workforce based on the company's employment plan, which needs to be polished in a directed and thorough manner.

The most excellent staff will make it simpler for the project to succeed. Creating a project team is crucial because it entails a highly complicated interdisciplinary group of individuals and calls for the inclusion of numerous specialists and the support of numerous organizations. The secret to a company's success is a solid and effective team, not a select group of outstanding employees who work alone in a team. An organization's project team can manage effectively team members that take responsibility for all tasks and responsibilities (planning, organization, implementation, and control). As a result, the project can be finished on schedule, with the desired quality, and at a fair price. Many initiatives, however, were delayed because the project team needed to be more proactive in addressing current issues and work well with other teams. Holding onto issues and waiting for others to fix them will increase expenses, take longer to complete, and result in uncontrolled work.

1.2 Problems

One of the manager's duties is to obtain the best performance from everyone in the organization. Three factors influence individual attitudes and behaviour at work, i.e. motivation, commitment and involvement. Small contractors generally need to
understand how to motivate employees, maintain commitment and involve them, so it needs to be identified how to improve team performance. Especially for motivation, two terms must be a concern, namely intrinsic motivation and extrinsic motivation.

II. PREVIOUS RESEARCH ANALYSIS

2.1. Motivation

Motivating employees is finding ways to pique their interest and urge them to work hard and contribute all their talents to achieving the organization's objectives. According to [1] motivation is a factor that pushes someone to engage in a particular behaviour or way of life. Another definition from [2], states that motivation results from numerous internal or external processes that culminate in an attitude of enthusiasm and perseverance to carry out specific activities. A person's desire that spurs them to action is said to be motivated. Goal-oriented motivation is a driving force that rarely manifests in vain [3].

Motivation is the driving force behind behaviour and the factors influencing people to behave in a certain way. A person is motivated when they think that taking a specific action will probably lead to accomplishing a goal and receiving a desirable reward that meets their needs and wants. Goals, the process through which people select their goals, and techniques applied by others to attempt and change their behaviour are all examples of things that might be referred to as "motivation."

The term "motivation" refers to internal and external factors that may induce action [4]. The three components of motivation are 1) Direction, or what a person aims to do, and 2) Intent, or the intensity of a person's effort, and 3) Perseverance, or the time spent trying [4].

High-motivation individuals exert effort and exhibit constructive discretionary behaviour. Some people are self-motivated, which is the best motivation, provided it shows that they act appropriately to complete the task. Yet, the quality of the work, the leadership's abilities, and other forms of reward and recognition provide additional incentive that strengthens self-motivation and helps people perform to the best of their abilities. Need hierarchy from Abraham Maslow

According to [5] Maslow divides human needs into five categories and arranges them in ascending order.

Figure 1 Hierarchy of needs Abraham Maslow

The level of needs according to Maslow is defined in the pyramid, according to Figure 1.

1. Physiological Requirements

Physical requirements for survival include that food, water, air, shelter, and other necessities. One is motivated to act appropriately and put in extra effort when one wants to satiate this physical need. Despite being the category of demands with the lowest weight, these bodily needs contain the primary needs.

2. Need for Safety and Security

To feel protected from the fear of accidents and to perform tasks safely, one must have a sense of security and safety.
3. Needs for Affiliation or Acceptance

These needs include those for friends, affection and acceptance from one's environment and the associations between coworkers. This is because, as social beings, people naturally like to live in communities.

4. Needs for Esteem

This desire is the need for respect from coworkers and the community at large, self-esteem, and acknowledgement. In theory, status should result from accomplishments, but this is only sometimes the case. The leadership should be aware that success is inversely correlated with status in society or within an organization.

5. Needs for Self-Actualization

This need is to achieve self-actualization by using talents, abilities, skills, and maximum potential to produce exceptionally or highly satisfying work results that are challenging for others.

2.2. Intrinsic Motivation

When people believe their work is significant, exciting, and challenging, and when they feel they have a reasonable level of autonomy (freedom to act), opportunity to succeed and grow, and opportunity to use and develop their talents, they are more likely to feel intrinsically motivated. It could be referred to as workplace motivation. Incentives from other sources do not influence it. [6] claim that the desire to be capable and independent, or to have a choice, drives intrinsic motivation. By "crowding out" their intrinsic interest or commitment, offering money can decrease motivation when people engage in an activity they consider genuinely desired. According to [7] Intrinsic motivation can be increased by job design. A career should engage a worker's skills if it offers adequate diversity, complexity, difficulty, and skill. According to [8] professions should offer adequate diversity, complexity, difficulty, and skill to engage a worker's skills. Five essential job traits, skill variety, task identity, task significance, autonomy, and feedback, were highlighted by [9] in their model of employment characteristics. According to [10] managers can take three actions to boost motivation.

An innate inclination that people have is called intrinsic motivation. Engage in self-interest, fulfilment, and enjoyment, similar to self-rewarding [11]. Evidence from research shows that the main factor in understanding people's behaviour is their intrinsic motivation and knowledge-contributing actions [12]. Altruism shows how much people appreciate assisting others without expecting anything in return anything in exchange. This purpose is intimately connected to but differs from the idea of prosocial activity in terms of motivation [13]. Altruism comes from empathy or internalized moral values. At the same time, Self-care and other orientations are related to prosocial conduct people anticipate social interaction [14], therefore, aiding others to get acceptance or tangible rewards. Another significant reason for sharing is the hedonistic incentive, Participation in online communities [15]. This purpose considers travellers who participate in a community's activities and content for fun and leisure as pleasure seekers [16]. Several dimensions of altruism include satisfaction from guiding and cautioning other organization members.

According to [13] we utilize enjoyment as a proxy for assisting in this study because it is more consistent with people's actions in online communities. When assisting others, demonstrating altruism, and employing hedonic motivation as the crucial aspect of another participant's personality to explain social laziness in internet travel forums. Compared to internal rewards, external Goal-oriented motivation is standard in information exchange, which shows that An activity's performance is determined by the cost-benefit analysis of different advantages and perceived effort put into the behaviour [12] and [17]. Trustworthiness and reciprocity are the knowledge contribution of digital communities' two most representative forces[18].

A person's reputation and social standing go beyond their financial means. Rewards. People would do anything to improve the reputation of a community. Develop more uplifting attitudes toward and engage more in the neighbourhood [18]. Considering reciprocity as a Future expectation is influenced by a fair exchange act and existing contributions benefits [19]. People are more likely to value reciprocity and anticipate being rewarded for their efforts when there is a need.

2.3. Extrinsic Motivation

Extrinsic motivation is when things are done to or for people to motivate them. As incentives, pay increases, compliments, or promotions are rewarded, disciplinary actions, pay withholding, or criticism are given as penalties. Extrinsic motivators can be
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effective immediately and very powerful, but they will only sometimes work. Because intrinsic motivators are ingrained in people and their work rather than being imposed from the outside, such as through incentive pay, they are likely to have a more robust and longer-lasting effect. These motivators are centred on the "quality of working life" (a phrase and movement that emerged from this concept). This motivation theory explains how internal and extrinsic motivation function.

Employee perceptions of the value of association with information exchange serve as the foundation for the outcome assumption that extrinsic motivation to share knowledge exists in employees [12]; [20]. Employees, for instance, exchange knowledge based on cost-benefit analyses that compare the rewards (benefits) anticipated from an exchange with the effort (costs) associated with that exchange. From a socioeconomic standpoint, if the perceived benefits are equal to or greater than the expenses, the trade process will continue; if not, it will end. Regarding information sharing, the costs include aspects related to effort, such as time spent, mental effort, etc. In contrast, the potential benefits include getting organizational rewards or putting pressure on coworkers to reciprocate [21].

2.4. Project Team Work

According to the expectation theory by [22], motivation is the outcome of a person's goal and the belief that his actions will produce that goal. Maslow developed the theory of human motivation by arguing that human efforts to achieve goals set off motivation. Motivation is the desire to grow, realize one's potential, and meet one's requirements. It is the desire to become someone or to act by one's ambitions. Maslow divides the five categories of human wants into which they are categorized in his theory of motivation. The needs in Maslow's hierarchy are physiological, security, social, esteem, and self-actualization.

[5] defines performance evaluation as assessing how well employees do their jobs compared to a set of standards and then informing employees of the results. The criteria are job quality, output, dependability, expertise, and working relationships.

According to [23] employee performance is related to each employee's accomplishments in compliance with many rules, regulations or employer expectations. The nature of employee performance reflects the skills and potential of every worker inside a company. Compared to employees with less experience and skills, the most competent and skilled individuals in this situation tend to demonstrate a high level of competence and commitment on the job, resulting in improved employee performance. However, most scholars claim that other factors affect employee performance levels besides skills, competence, and professionalism and that effective communication within an organization is one of the most critical factors affecting employee performance and productivity levels. [24]. Standard measures to determine a person's level of performance, including:

1. The quality of work results includes timeliness, accuracy, and work neatness.
2. The quantity of work results includes the amount of regular work and the amount of additional work completed.
3. Resilience to work, namely following existing instructions, carrying out good safety procedures, initiative, punctuality, and attendance.
4. Attitude includes responsibility for the implementation of work and the level of cooperation with colleagues

Performance appraisals are a tool that can keep tabs on how okay employees are performing. These evaluations are part of a performance management system linked to corporate objectives, daily performance, professional development, and rewards and incentives. The assessment systematically evaluates performance and changes in human behaviour inside the business resulting from a motivational drive. This performance appraisal is key to developing an organization effectively and efficiently. Performance appraisal is a process through which an organization evaluates or evaluates employee performance.

2.5. Aims/Objectives

This research aims to determine the effect of intrinsic and extrinsic motivation on small contractors so that it can be used as a guide in improving project team performance.

III. METHODOLOGY

This study used a qualitative descriptive analysis with data gathered through questionnaires as its research method. The questionnaire is a list of questions, and each response to the questionnaire's questions, which are all about the study problem, is significant for evaluating the hypothesis. Creating the questionnaire started with professional interviews to better align the internal
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questions with the study challenge. There were three sections to the research questionnaire. The purpose of the first segment is to elicit generic data from respondents. The second section aims to collect data on motivation, while the third section examines the project team's performance. Respondents' opinions were gathered using a Likert scale with a maximum of five points research method used in this study is a qualitative descriptive analysis using data obtained from questionnaires.

IV. DATA AND ANALYSIS

Validity and Reliability Analysis was performed to obtain high-quality data. Validity testing attempts to evaluate the precision of the tool used to assess the link between team member performance on a construction project and motivation. The $r > r$ table determines the instrument's validity. All items were determined to be legitimate after analysis with SPSS 25 since they had an $r$ value greater than $r$ table = 0.254. While instrument consistency is evaluated through the reliability testing method. By examining Cronbach's Alpha during statistical testing with SPSS 25. When Cronbach's Alpha is higher than 0.6, the instrument is considered to be dependable. Cronbach's Alpha was discovered to be $0.907 > 0.6$ since all items were valid and useful for further study [25].

4.1. Validity and Reliability Test

<table>
<thead>
<tr>
<th>Table 1 Reliability Test</th>
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<tbody>
<tr>
<td>Cronbach’s Alpha</td>
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<tr>
<td>0.907</td>
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<tr>
<th>Table 2 Validity Test</th>
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<tr>
<td>$r$</td>
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<tr>
<td>Extr_1</td>
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<td>Extr_2</td>
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<td>Extr_3</td>
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<tr>
<td>Int_1</td>
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<td>Int_2</td>
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<tr>
<td>PTeam_1</td>
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<td>PTeam_3</td>
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<td>PTeam_4</td>
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4.2. Measurement Models (Outer Models)

The project team's performance and motivation are two latent variables in the model, along with two sub-variables, Intrinsic and Extrinsic Motivation and consist of nine indicators. Reflective First Order, Reflective Second Order is the name of model. Research in the field of SEM often uses Confirmatory Factor Analysis (CFA) for model measurement through confirmatory factor analysis using the Multi Trait-Multi Method (MTMM) approach by testing convergent validity and discriminant validity. The convergent validity test of reflective indicators can be seen from the value of the loading factor for each indicator which must be greater than 0.7 for confirmatory research and between 0.6-0.7 for exploratory research. Meanwhile, the Variance Extracted (AVE) value must be greater than 0.5. Furthermore, discriminant validity is measured by cross loading value for each variable greater than 0.7, or it can be done by comparing the AVE square root for each construct with the correlation value between constructs in the model. Whereas Cronbach's Alpha and Composite Reliability reveal construct reliability.
4.3. Convergent Validity

The construct is multidimensional and is made up of a reflecting model, dimensional latent, and unidimensional constructs. First-order and second-order analysis is the CFA method used to evaluate construct validity. An examination of the latent dimension reflected by each indicator is the first-order construct. The second-order construct, on the other hand, is a study of a construct that is mirrored in latent dimensions. All loading factors were found to be greater than 0.60 after iterations, and AVE and Communality values greater than 0.5 indicated that convergent validity was satisfied [26]; [27]. All loading factors are shown in Figure 2 While AVE and Communality are shown in Table 3.

Table 3 AVE and Communality

<table>
<thead>
<tr>
<th>Construct</th>
<th>AVE</th>
<th>Communality</th>
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<tbody>
<tr>
<td>Extrinsic Motivation</td>
<td>0.814</td>
<td>0.814</td>
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<tr>
<td>Intrinsic Motivation</td>
<td>0.769</td>
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<tr>
<td>Motivation</td>
<td>0.756</td>
<td>0.756</td>
</tr>
<tr>
<td>Project Team Performance</td>
<td>0.788</td>
<td>0.788</td>
</tr>
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4.4. Discriminant Validity

The idea that various manifest variables shouldn’t have a high association is connected to discriminant validity. Utilizing Smart PLS 2.0 M3, cross-loading is a technique to assess the discriminant validity with reflected indicators. The cross-loading must be more than 0.70, according to a general rule of thumb used to evaluate discriminant validity [28]. Table 4 shows that all cross loading was greater than 0.70, demonstrating that the discriminant validity was satisfied.

Table 4 Cross Loadings

<table>
<thead>
<tr>
<th></th>
<th>Extrinsic Motivation</th>
<th>Intrinsic Motivation</th>
<th>Motivation</th>
<th>Project Team Performance</th>
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<tbody>
<tr>
<td>Ext1</td>
<td>0.886</td>
<td>0.855</td>
<td>0.855</td>
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<tr>
<td>Ext1</td>
<td>0.886</td>
<td>0.855</td>
<td>0.855</td>
<td></td>
</tr>
<tr>
<td>Ext2</td>
<td>0.886</td>
<td>0.864</td>
<td>0.864</td>
<td></td>
</tr>
<tr>
<td>Ext3</td>
<td>0.934</td>
<td>0.931</td>
<td>0.931</td>
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<tr>
<td>Ext3</td>
<td>0.934</td>
<td>0.931</td>
<td>0.931</td>
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</tr>
<tr>
<td>Int1</td>
<td>0.811</td>
<td></td>
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</table>
4.5. Construct Reliability

The construct's reliability was designed to look at the precision and consistency of the tool used to measure the construct. The procedures used to conduct the construct reliability analysis with SmartPLS 3.0 M3 were Cronbach's Alpha and Composite Reliability. Table 5's higher than 0.70 values for Cronbach's Alpha and Composite Reliability reveal that the instruments are consistent and advised for use in measuring the construct [26]; [27]

<table>
<thead>
<tr>
<th>Construct</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
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<td>Extrinsic Motivation</td>
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<td>0.929</td>
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<tr>
<td>Intrinsic Motivation</td>
<td>0.716</td>
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<tr>
<td>Motivation</td>
<td>0.892</td>
<td>0.925</td>
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<tr>
<td>Project Team Performance</td>
<td>0.911</td>
<td>0.937</td>
</tr>
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</table>

4.6. Structural Models (Inner Models)

R Square of each latent endogenous is used to analyze the structural model. It develops into a structural model prediction strength. R square's variation is used to illustrate how some exogenous and endogenous variables interact. The model is strong, moderate, and poor, according to the R square values of 0.75, 0.50, and 0.25.

Table 6 shows that the R square for motivation is 0.992, which is considered strong and indicates that intrinsic and extrinsic motivation account for 99.2 percent of motivation. While the project team performance R square is 0.911, which is considered strong, it shows that 91.1 percent of the project team performance is explained by motivation. In addition, motivation can take both internal and extrinsic forms

<table>
<thead>
<tr>
<th>Construct</th>
<th>R Square</th>
</tr>
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<tbody>
<tr>
<td>Motivation</td>
<td>0.992</td>
</tr>
<tr>
<td>Project Team Performance</td>
<td>0.452</td>
</tr>
</tbody>
</table>

V. SIGNIFICANT OF CONSTRUCT

The meaning of the construct is shown by the path diagram and path coefficient in Figure 3.

Table 7 Fig. 2, and Table 7. T-statistics greater than T-table 1.96 were used to demonstrate the positive significance of the relationships between all variable dimensions and latent variables as well as latent exogenous variables and latent endogenous variables.
VI. CONCLUSION

The analysis revealed a substantial relationship between motivation and the project team's performance, as shown by the t value of 8.247 > t = 1.96 or p = 0.000 < 0.05. In addition, as evidenced by the values of t=43.374 and 11.566 > 1.96 and p value 0.000 < 0.05, intrinsic and extrinsic motivation are strongly associated with motivation. These findings are in accordance with [18]; [29]; [30]; [31]; [32]. Additionally, it is seen that extrinsic incentive has a stronger association with motivation than intrinsic drive. Employers can now be more aware of the extrinsic motives that contribute to their company's success when examining the present state of their workforce, especially for small contractors, and apply them as necessary within the proper levels of their organization. This is because, for small contractors, employees prioritize meeting their physiological demands more than achieving their full potential.

ACKNOWLEDGMENT

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REFERENCES


