

Importance of evaluation of learning organizations in manufacturing industry companies

Tundung Subali Patma^{1*}, Mohammad Iqbal², Roos Wijajani³, Mohammad Maskan⁴

^{1,4} Department of Business Administration, State Polytechnic of Malang, Malang, Indonesia;

² Business Administration Department, Faculty of Administrative Science, University of Brawijaya, Malang, Indonesia;

³ Faculty of Economics and Business, University of Merdeka Indonesia

Abstract: The importance of organizational learning must be understood by all organization members, both about learning technology and management activities. Considering that the manufacturing industry's investment is very high, organizations must learn to create effective working environment conditions. This is also done by manufacturing organizations to make it easier to meet consumers' needs and create added value for manufacturing companies. Five factors tend to support the success of learning organizations in manufacturing companies. Two of the most dominant factors are managerial resource support and organizational learning quality orientation, both of which are the most influential factors and tend to support learning organizations' success in manufacturing companies. These results suggest strategies to support the success of learning organizations.

Keywords: learning organization, manufacturing industry, learning organizational factors, organization strategy, human resources management.

在制造业公司中对学习组织进行评估的重要性

摘要: 所有学习知识和管理活动的组织成员都必须了解组织学习的重要性。考虑到制造业的投入很大,组织必须学会创造有效的工作环境条件。制造组织也这样做,以使其更容易满足消费者的需求并为制造公司创造附加值。有五个因素倾向于支持学习型组织在制造公司中的成功。最主要的两个因素是管理资源支持和组织学习质量导向,这两个都是最有影响力的因素,并且倾向于支持学习型组织在制造业公司中的成功。这些结果提出了支持学习型组织成功的策略。

关键词: 学习组织,制造业,学习组织因素,组织策略,人力资源管理。

Introduction

Currently, the development of industry in the business world is very rapid, especially in the manufacturing industry. A manufacturing company is a type of industry that produces or processes a material and turns it into a new item. Manufacturing industry companies are large industries with many organization members to carry out company activities ranging from production to corporate management activities.

In a competitive business environment where every business organization tries to attract customers, it becomes crucial for manufacturing organizations to

remain competitive by innovating new ideas and thoughts to provide added-value products and services to customers. Employees' knowledge and skills are essential for business organizations to remain competitive in this complex business environment. Their inability to account for intangible benefits such as greater flexibility, shorter lead time, and increased knowledge about technology use makes them incompetent in the most strategic decision-making process [1]. Thus, employees need to be given adequate training on all new dimensions that the company wants to observe soon [24].

Organizational learning in the manufacturing industry regarding significant changes in the business

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About the author: Tundung Subali Patma, Department of Business Administration, State Polytechnic of Malang, Malang, Indonesia; Mohammad Iqbal, Business Administration Department, Faculty of Administrative Science, University of Brawijaya, Malang, Indonesia; Roos Wijajani, Faculty of Economics and Business, University of Merdeka Indonesia; Mohammad Maskan, Department of Business Administration, State Polytechnic of Malang, Malang, Indonesia

Corresponding author Tundung Subali Patma, tundung.subali@polinema.ac.id

environment is crucial to its success. It is essential information that results in a better interpretation of information. It ultimately provides a framework for responding effectively both inside and outside the organization, closely related to the employee's performance. According to the findings [2], learning and organizational performance are indeed related where high-order learning orientation can be identified as a driver of company growth and its operations' success. There needs to be an appropriate and supportive culture that provides systems and procedures to facilitate the company's flow of information and employee development's appropriate progress. [3] shows that organizational development and business executives must transform their culture into a supportive culture before implementing new business concepts.

For this reason, an analysis of how organizational learning is applied in several manufacturing industries is needed to be used as a guideline for manufacturing companies as a reference in the concept of applying effective organizational learning. In writing, this article is divided into three discussions: the importance of applying learning organizations in manufacturing companies, two factors that effectively affect learning organizations. The third is how the strategy regards implementing learning organizations effectively in manufacturing companies.

1 Discussion topics

1.1 The Importance of Learning Organizations in Manufacturing Industry Organizations

Manufacturing companies make very high investments in technology because this is a necessity that must be done by companies in carrying out business activities. [4] and [5] also describe it as a strategic goal to achieve a competitive advantage because advanced technology enables companies to quickly respond to customer orders, provide various products, or introduce new products to reach easily. The way to encourage competitive advantage is through technology investment in manufacturing.

Manufacturing strategies must support business strategies by focusing uniquely on value-added workflows oriented towards a set of goals relating to customers, competition, and change. Companies must describe the allocation of resources in the manufacturing industry's realm in a way that enables the achievement of company goals. Applying investment in technology in an organization has profound strategic implications in terms of competitive ability. Investment in manufacturing industry technology can cause several problems in its implementation. This problem is mainly technical and managerial [6]. Technical problems arise because of the technology's complexity and the technical decisions to

introduce technology. Managerial issues are related to managing change processes and investment decisions in technology [7].

Employees and teams in manufacturing companies must overcome the upcoming demands' uncertainty along uncertain lines with several partners, significantly increasing the complexity, interdependence, and individualization of the production process. This demand causes extraordinary challenges for learning and development because the capacity for reflection, adaptation, and development of sustainable work processes is needed by employees [8]. This is also supported by [9] that the demands of work in many manufacturing companies in industrialized countries have changed due to market viability and increasing complexity and individuality of products. This work change is in line with the changing demand for learning and development. Three case examples show that manufacturing companies and their employees are often not well prepared for this change. Lack of preparation shows that training facilities are still based on individual workplace qualifications needed for stable and sustainable production and that joint reflection and development rarely occur.

Based on this, manufacturing companies need to know what factors can effectively implement learning organizations as a supporter of organizational and corporate success goals. Critical to organizational learning is how knowledge is communicated [10], believing that successful manufacturing organizations consistently create new knowledge and disseminate it widely through technological innovation.

1.2 Factors Affecting Learning Organizations in Manufacturing Organizations

Several things affect learning organizations in manufacturing companies [11], predicting several variables of an organization's tendency to adopt effective organizational learning mechanisms:

1.2.1 Uncertain Organizational Environment

Some contingency theories view interactions between organizations and the environment as critical variables in determining the nature of strategies and internal processes. [12] states that organizational metaphors as organisms indicate that if the external environment is volatile and business is required to consider new ways of operating sustainably, survival mechanisms will lead to the formation of development, which leads to an increase in organizational learning. As [13] points out, organizational learning cannot be created and eradicated by various external stimuli. At the very least, uncertainty in the external environment can trigger change and a reason for considering alternative organizing methods. How the resulting changes lead to the formation of useful or not, learning organizations also depend on many other factors, such

as HRM strategy, organizational structure, and emphasis on organizational orientation. [14] shows that there is a significant relationship between one aspect of environmental uncertainty, which is related to product/production process technology. So what organizations need to do is where technology changes rapidly to pay special attention to managing that technology's learning process. There are no other significant correlations between environmental uncertainty measures and the tendency to adopt effective learning strategies found in this study. The environment in the organization does not tend to effective learning organizations.

[15] adds critical factors conducive to learning organizations, including adequate human resources (human resources such as facilitation skills, learning skills, and financial resources), management support for learning, and increased willingness to learn from the employee side. Maybe some conducive factors are needed, but poor organizational conditions to be oriented towards learning. For example, despite increasing HR resources and senior management commitment, until work pressure and work organization are addressed, and work time is devoted to learning problems, employees will continue to see learning as an addition to their daily work practices, maybe even unnecessary and worthless. The need to meet targets and task orientation hinders the development of learning environments.

1.2.2 Profitability

Achieving profitability indicates that resources might be available to support learning organizations if this is seen as a priority by stakeholders in a business. [16] and [17] show a need for financial resources that enable the learning organization to run in research and development. Therefore, learning organizations in higher skills will enable organizations to invest in systems that promote the learning organization. [11] also pointed out that managers, especially in manufacturing operations, should seriously consider implementing quality initiatives such as TQM and JIT as drivers to implement a more effective organizational learning process.

1.2.3 Organizational Structure

The nature of organizational structure plays a crucial role in determining how effective organizational learning is [18], [19], and [10] describe the kind of decentralized organizational structure that they consider most appropriate for dealing with turbulent environments and where there is a need for high-level innovation. In this case, there is a negative relationship with learning organizations because high-level centralization does not help businesses that are trying to build effective learning mechanisms. This makes sense when one considers that a high level of

centralization eliminates the employee's control responsible for running the day-to-day business, thereby robbing the employee of the opportunity to make his own decisions and learn in the process.

1.2.4 Human Resources Management Approach

There is a need for horizontal integration so that strategies related to human resource development become effective and to encourage the diffusion of learning through organizations [20], [21]. It is said that the resources, rewards, and employee development can make a positive contribution to increasing the effectiveness of organizations in situations where those that have been designed are then implemented in a mutually supportive way. For example, the reward system needs to recognize the manager's coaching and mentoring skills if there is a policy to utilize this type of employee development. The study [11] shows that support by the HRM has a significant relationship with learning organizations. That organizations have a much higher chance of creating mechanisms to support learning. They have experience managing people effectively and supporting the assumption that achieving integration requires various aspects of planning, recruitment, selection, selection, assessment, training, and awarding HRM to move towards establishing learning mechanisms.

According to [15], the role of HRD seems to be one of facilitation, coordination, and support rather than just providing training and development. This is the role of education, informing and encouraging managers and other employees to consider various opportunities and broader methods, learning, and development. His role is to be a leader and role model for learning, where learning is not limited to taking formal courses. The role of HRD is one of working partnerships with managers to support this business.

1.2.5 Learning Quality Orientation

Learning is difficult to measure, and it is necessary to consider outcomes such as productivity and efficiency when considering the use of specific mechanisms used. [22] goes further and asserts that measurement of the learning process and good results tend to increase the effectiveness of learning that takes place within the organization. The measurement relates to how individuals achieve development targets and how these achievements contribute to organizational goals. The study [11] shows that business quality orientation tends to support developing organizational learning.

[15] explains a significant way to achieve a culture/learning orientation is to focus on changing attitudes towards learning through cultural change programs and recognizing and assessing all learning forms. However, while it is possible to replicate mission statements and training policies, culture cannot

be copied. The organization does not have but is a culture that can only be developed. This is a crucial role for managers, supported by human resource development professionals knowing and overcoming many factors that influence learning to help develop organizations as a learning culture.

1.3 Learning Organization Strategy in Manufacturing Industry Organizations

The manufacturing industry is becoming increasingly competitive. For staying competitive, there is a need to improve relations between organizations to improve their performance [23]. To increase cost-effectiveness, improve quality, and create long-term competitive advantages, manufacturing organizations start to start strategic alliances with their customers and suppliers as part of their supply chain management and form teams as learning organization strategies.

1.3.1 Strategic Learning Alliance

Managers need to realize that their primary role in building learning relationships is the coordinator. As a result, this requires a healthy management leadership style capable of reaching all relationships. It is thought that a consistent management style in the alliance will allow relationship participants to focus and provide a shared vision. The alliance level and processor power will affect its vision and because the party must approve the facilitator for the alliance [23]. So, managers must have an understanding of the related learning alliance system.

According to [23], most learning organizations' models are nothing more than descriptions of organizations that function well and do not offer solutions to solve today's complex problems. The fundamental theme of the organizational learning model that is entirely different from traditional approaches is systems thinking [25]. This form of thinking has a systemic and holistic focus and can facilitate organizational learning in manufacturing alliances. To support the learning process in alliances, shared learning structures, strategies, and processes need to be developed. This should include designing a system of rewards and incentives that encourage individual and organizational learning and establishing mechanisms for collecting and transferring information from inside and outside the alliance.

According to [23], cooperative alliances can create a shared vision for mutual learning. Such learning can increase manufacturing organizations' capacity to learn continuously and improve the effectiveness of their operations if TQM practices are used as key enablers for continuous improvement. Thus, by increasing operating effectiveness, internal and external customer satisfaction can be significantly improved.

1.3.2 Forming a Team as a Learning Organization Strategy

Based on several factors that influence learning organizations in manufacturing organizations, managers' support is one of the most likely factors. For this reason, managers must be able to create a team as a strategy in learning organizations by using strategic learning alliances. The formation of team-based learning organizations has been seen as a way to reconcile learning in the workplace with increasing demands for efficient production [26]. This problem seems to be very relevant today. Many modern work organizations (including team-based organizations) claim to consume instead of growing their human resources [27]. According to research [28], which conducted case studies in three manufacturing companies in Sweden, it is important to create a favorable learning condition in a team-based work organization, based on a previous description of a favorable objective and subjective learning condition and employees' ability to take advantage of this condition. From the three case studies, it appears that the realization of team organization in the sense of learning organization depends on several important conditions regarding access to adequate challenging work assignments, team leadership, supportive climate, adequate team design, and access to learning support.

Based on this, it seems clear that the conditions for learning in team-based organizations can be seriously eroded in intensive production settings. There is also a clear risk that the time to learn and take part in the experience is given a shorter time. The challenge of creating favorable conditions for learning in intensive production systems from this view is to set aside specific inseparable resources to learn (including time and learning support) and to argue that the benefits of saving production must be reinvested in a supportive form of employee learning and development.

1.3.3 Continual Improvement of Learning

The whole key to the success of organizational learning lies with a manager. How can he create conditions for learning that are effective for members of his organization? Such managers need to have confidence that they can provide an attractive environment for their employees, which will enable them to retain trained staff. Suppose managers do not provide the necessary training. In that case, they must provide other mechanisms for employees to capture at least some of the knowledge and skills they might acquire through training, so the company can move up from its original state of leaning to structured or goal-oriented. If at least some of the knowledge and skills can be captured through other mechanisms, it can then be transferred to other employees and retained within the company. Managers who are reluctant to institutionalize formal training programs need to

identify other ways to capture and transfer knowledge to improve their companies' performance, as described [13].

Research [28] on five manufacturing SMEs in Australia shows that the concept described by the terms "kaizen" or "continuous improvement" is an effective way to create an environment where learning can be fostered. Implementing this approach can enable businesses to meet changing market needs. In the five SMEs studied here, it seems clear that developments at different stages in different companies provide insight into the impact of various CI tools and techniques. Continued efforts to develop a learning environment so that Continuous improvement (CI) successfully enables companies to improve their feedback on organizational learning and create the possibility of strategic approaches that emerge in their structures.

2 Methodology

This article is a review of several previous studies. The focus of this research is an organization in the manufacturing industry. This article summarizes some of the current previous research results and then concludes a good organizational learning strategy in the manufacturing industry.

3 Conclusion

Manufacturing companies need a learning organization in carrying out their business operations. This is done to meet the challenges of existing business conditions. Because investment in the manufacturing industry is highly valued, organizational members must carry out continuous learning, both technically and non-technically, to achieve manufacturing organizations' goals. In the implementation of learning organizations in manufacturing companies, several factors negatively and positively affect the learning organization. One of the most likely to influence an effective learning organization is the support of a manager to provide feedback or facilities to members of the organization to learn and create a culture in the implementation of learning orientation activities. Based on this, it can be concluded that support from superiors dramatically affects the quality of employee performance and employee job satisfaction. Employees who get support from their superiors feel cared for, so they feel satisfaction from within and can directly increase the responsibility for employee performance so that tasks or workloads given by the company can be completed properly.

There are several alternative strategies chosen based on existing literature supporting effective learning organizational activities: strategic learning alliances, which are collaboration between teams in carrying out tasks or missions to achieve company goals, forming

learning teams, and implementing continuous learning. This means that employees are always required to update everything related to work interests both in the form of information and technicalities so that everything new can be well received and provide extraordinary benefits for the company, especially in manufacturing. For a manufacturing organization, a manager has a vital role for the learning organization that can affect the final results of achieving the organization's goals so that the leadership style in an organization needs to be considered in action. The leadership style can determine a learning organization's success because it is used as a guide for organizational members. A leadership style that is well accepted by subordinates can directly improve the quality of employee performance where work is more effective and efficient so that company goals can be adequately achieved and develop continuously.

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