Literature Review the Effect of Technology, Environment and Organizational Strategy on Organizational Structure

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Abstract: Organizational Development is a systematic and planned approach to improve organizational effectiveness and help solve problems. Some of the things included in Change Management are Individuals, Work Teams, Organizational cooperation/cooperation, excessive decentralization and lack of speed of communication which affects the efficiency of operations at all levels. Organizational strategic change is a new influence on the evolution of organizational development. Organizational structure and technology, organizational strategy and the increasingly complex social environment encourage organizational change to increase. An organization will experience a development if the organization can be declared successful when it develops in a positive direction, so that employees who join the organization can achieve their goals. The development of the organizational structure requires adjustments to the system within the organization in order to keep up with the changing times. The development of an organization can also be used as a scale for the organization, whether the organization remains active and protects the employees in the organization as well as in the face of the times. The purpose of writing this article is to build a hypothesis of the influence between variables to be used in further research.

Keyword: Organizational Structure, Technology, Environment, Organizational Strategy.

INTRODUCTION

Background of the problem.

As time goes by, changes will always occur, whether we realize it or not. The same is true of organizations. Organizations can survive and launch development if in an organization there is a change. Every environmental change must always be investigated first for its effectiveness because it will have an impact on the extent to which the organization can adapt to changes.
Based on all the changes made, it is aimed at increasing the effectiveness of the organization which has the aim of fighting for the rehabilitation of organizational expertise in adapting to environmental changes and changes in the behavior of members. Organizational change is implemented by organizational structure that involves strategy and technology systems, physical arrangements and human resources.

According to (Sobrin, 2005) there are two factors that encourage change, namely external factors such as changes in technology and the increasingly combined economy. And internal organizational factors also contain two things, namely: structural changes and cultural changes.

Every change cannot choose one of the structural or cultural aspects that must be changed, but both aspects must be managed properly together with the aim of getting optimal and effective changes. From this understanding, it can be interpreted that external aspects and internal aspects, structural changes and cultural changes are very influential on the organizational structure. In the article that will be discussed, the factors that influence the development of organizational structure are technology, environment, and organizational strategy.

This article analyzes the influence of Technology, Environment and Organizational Strategy on Organizational Structure, a literature study of Human Resource Management (HRM).

**Formulation of the problem**

Based on the background, the problems to be discussed can be formulated in order to build hypotheses for further research, namely:

1. Does technology affect the organizational structure?
2. Does the environment affect the organizational structure?
3. Does the organizational strategy affect the organizational structure?

**LITERATURE REVIEW**

**Organizational structure**

The organizational structure determines that tasks are formally divided, grouped and coordinated (Nurruli, 2019). Organizational structure is a formal authority work in an organization. This structure, which can be shown visually in the organizational structure, also serves many purposes (Coulter, 2016). According to (Susanto, 2013) states that the organizational structure is a comprehensive design for the planning, implementation and monitoring of activities carried out by the management. Then also delivered by (Moorhead, 2014) which states that the organizational structure is a system of tasks, reporting, and power relations which the entire organization carries out.

The organizational structure describes a framework and arrangement of relationships between functions, divisions or positions, which determines the organizational level and the structure becomes a place for the exercise of authority, responsibility and reporting systems to superiors that provide continuous stability that can allow the organization to survive and coordinate relationships with superiors. environment.

In theory, many factors affect organizational structure, according to (Robbins dan Coulter, 2007) There are several factors that influence the creation of an organizational structure, namely as follows:

a) **Division of Work**

Job division is a series of levels where tasks in an organization are divided into different jobs. Carrying out tasks requires several actions, it is necessary to make a determination to
determine the division of tasks for each person, the division of work specifically can allow employees to learn skills and make them proficient in certain work fields.

b) Departmentalization
Departmentalization is an activity of grouping the work of experts which is a consequence of the division of labor. It can also be said as an organization's way of organizing activities that have been differentiated horizontally. Departmentalization is the basis for classifying jobs into one group. Every organization consists of several departments. The principle of departmentalization is to classify similar and closely related activities within a work unit.

c) Hierarchy
Hierarchy is an unbroken power that extends from the top level of the organization to the lowest level and explains the relationship of the reporter to the recipient of the report. In the hierarchy there is authority in carrying out tasks, meaning the granting of formal authority or power and responsibility for carrying out certain activities. Delegation of superiors to subordinates is necessary so that the organization can run in detail because there is no superior who can observe every task of the organization.

d) Coordination
Coordination is the process of linking the activities of separate departments in order to effectively carry out organizational goals. Coordination is a consolidation procedure of goals and activities in separate units (departments) for an organization to achieve organizational goals efficiently. There are two types of coordination, namely:
- Horizontal Coordination. Coordination carried out between departments that have an activity level of authority in achieving overall company goals.
- Vertical Coordination. Coordination which is an association activity, direction, work unit which is under the authority and responsibility.

Rentang Manajemen (Span of Control)
e) Span of Control
Span of Control is the number of employees that can be managed by the leadership efficiently and effectively. Inappropriate spans of management can hinder productivity, efficiency, and can increase costs. To get the appropriate range must review the factors related to the situation, subordinates, and managers.

f) Unity of Command
Unity of command is carried out based on a one step down approach. That is, a manager gives orders or tasks to his subordinates to continue to a lower level if it is necessary. To prevent ambiguity not only in giving orders, but in accountability. The positive impact of implementing the principle can be assessed from the certainty of orders received by someone, as well as those that are directly related to the behavior development of the subordinates concerned.

The organizational structure has been widely studied by previous researchers including:

Technology
Technology is a program or design for tools as an action that can reduce uncertainty in a causal relationship in achieving something desired (Roger, 1983). Then technology can be defined as the totality of methods that materially lead and have the characteristics of efficiency in
every human activity (Ellul, 1967). Technology is known from millions of years ago due to the
desire to live a more comfortable and more prosperous life. In previous civilizations there was
technology, although the term "technology" had not been used. The term "technology" comes
from "techne" or ways and "logos" or knowledge (Alisyahbana, 1980).

Technology is a combination of skills, knowledge, tools, machines and computers used to
design, produce, and distribute goods and services. The more sophisticated the technology used,
the more flexible organizational structures are needed to improve the ability of managers to
respond to unpredictable situations and provide the freedom to find new solutions to problems or
problems that are currently happening.

Basically the benefits of technology to simplify and accelerate all activities in various
areas of life. Referring to the notion of technology, some of the benefits of technology include:

- **Communication and Information Sector**
  The benefits of technology in the field of information and communication are easy, fast, and
  inexpensive processes. If we look at the previous year, we can communicate remotely using
  letters and landlines. Now we can do this using smartphones, chat applications, and email.

- **Economics and Business**
  The benefits of technology in the economic field such as the presence of an ATM
  (Automated Teller Machine) and internet banking that facilitates the payment transaction
  process. Technology in the business sector can facilitate the delivery process with all kinds of
  expedition services that utilize internet technology and mobile applications in order to speed
  up the delivery of goods.

- **Field of education**
  Technology can also provide many benefits and conveniences in the field of education. One
  of them is the existence of an e-learning system. With this latest learning system, students do
  not have to come to the school location, simply by opening a website or application and
  accessing learning materials online.

- **Transportation Sector**
  Technology has provided many benefits and conveniences in the field of transportation, be it
goods or people. With the existence of various types of transportation, such as; cars,
  motorcycles, planes, and ships, it makes the process of human travel easier and faster.

- **Medical field**
  The benefits of technology are also felt in the medical field, such as the discovery of various
  methods, drugs, equipment, and the latest machines that can help doctors and nurses do their
  jobs.

  Technology has been widely studied by previous researchers, including:(A.A. Shodiq &

**Environment**

The environment is objects and conditions as well as humans and their activities. It is in a
space in which humans live. All of these elements can affect the continuity and peace of human
life. And all other living creatures (Darsono, 1995). Environment is defined as everything that
surrounds humans. The environment can also affect the development of human life. Without the
environment, the possibility of ecosystems and climate change does not work well. This happens
because there are many elements that form the environment, so the environment becomes a more
complex place.
The organizational environment is the one that provides energy for the distribution and acceptance of organizations that are around the organization and can affect the continuity of the organization (Hick and Gullet, 2013). The organizational environment is an institution or force outside the organization that can affect organizational performance (Robbins P., 2006). The organization is in an environment that is a supporting or hindering aspect for the organization. Organizational activities can change the environment and the environment can also encourage changes in the organization.

Organizations operating in the environment cannot avoid that in addition to the activities they carry out, the organization is involved with the environment around the location. That is why, organizations need to understand the environment about what is directly or indirectly related to these activities.

Factors that affect the environment is the sustainability of the organization which is influenced by the organization's ability to direct environmental influences. There are two kinds of environment in the organization, namely the external environment and the internal environment.

a) External Factors
The external environment is the culture or outside forces that affect organizational performance. According to (Sopiah, 2008) external environmental factors have a major influence on an organization's progress or failure in trying to carry out its goals.

The external environment is divided into two, namely the micro environment and the macro environment. The external micro environment is an environment that has a direct influence on management activities such as providers, competitors, customers, banking institutions and non-banks and so on. Meanwhile, the external macro environment is an environment that has an indirect influence, such as economic conditions, technological, political, social changes and so on.

b) Internal factors
The internal environment is where managers work including company habits, production technology, organizational structure and physical facilities.

The company's internal environment is the strength that exists in the organization and has properties that can be controlled by management. The internal environment includes; workers/employees, the board of commissioners, and shareholders.


Organizational Strategy
Strategy comes from the Greek word Strat gos which means war commander at that time, the current understanding of strategy is a long-term plan that includes designated actions to achieve certain goals, which are generally success. According to (Lynch & Wibisono, 2006) said that strategy is a pattern or plan that combines the main goals or company policies with a series of actions in a mutually binding statement. Strategy is an interpreter and analysis of internal capabilities or organizational capabilities, which are then interpreted into the organizational structure.

According to (Robbins, 2009) said that "The notion of strategy in organizational capacity is the determination of various long-term goals and objectives that are fundamental to an
organization, then proceed to determine the activity plan and the distribution of resources needed to achieve these various targets or objectives.” Strategies are formulated and implemented to achieve various objectives that have been set, while maintaining and expanding the organization's activities in new fields in order to keep pace with the environment (such as changes in demand, changes in supply sources, changes in economic conditions, technological developments, and activities of competitors).

The organizational or company environment has a very important contribution strategy for the achievement of goals, because the strategy provides the direction of action, as well as the ways that must be done so that the desired goals are achieved. According to (Grant, 1999) strategy has three roles in fulfilling management objectives, namely:

- Strategy to support decision-making Strategy becomes a part of achieving goals. Strategy is a form or theme that provides a unified correlation between decisions taken by individuals or organizations.
- Strategy is a means of communication as well as an important part of the means of coordination and communication, meaning that strategy is one that provides a common direction for the company.
- Strategy as a goal. The concept of this strategy is combined with the mission and vision to determine where the company is in the future.

Organizational Strategy has been widely studied by previous researchers, including: (Mahfud, 2021), (Rahadi, 2021), (Y. Febrianti & L. Listyaningsih, 2021), (A. Nafisaputri & S. Perbawasari, 2021), (Fadli, 2021), (Wiyono, 2021), (S. Ticoalu, J. Ruru & V. Londa, 2021) dan (L. Wuryanti & R. Angriani, 2021)

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<tr>
<th>No</th>
<th>Author (year)</th>
<th>Previous research results</th>
<th>Similarities of this article</th>
<th>Perbedaan dengan artikel ini</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ramadiani &amp; Auliana R (2019)</td>
<td>Scientific Journal of Information Systems Technology</td>
<td>Discussing technologies that help and simplify the organizational structure</td>
<td>Differences in the research methods used (Multi Attribute Utility Theory)</td>
</tr>
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<td>2</td>
<td>Gochua&amp;Orwa (2015)</td>
<td>Faktor yang mempengaruhi evktivitas struktur organisasi</td>
<td>Regarding technology that facilitates organizational restructuring</td>
<td>The analysis technique used is multiple regression analysis</td>
</tr>
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<td></td>
<td></td>
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<tr>
<td>4</td>
<td>Sedarmayanti (2015)</td>
<td>The Influence of Organizational Structure, Work Environment on Employee Performance</td>
<td>Discuss about a good environment to get effective and efficient performance results</td>
<td>Motivation has an influence on Employee Work Performance in the Work Environment</td>
</tr>
<tr>
<td>5</td>
<td>Lindsay (1995)</td>
<td>Organizational Development</td>
<td>Discussing Organizational Development</td>
<td>Division of tasks according to the organization</td>
</tr>
</tbody>
</table>
The method of writing scientific articles is by using qualitative methods and literature review (Library Research). Assessing theory and the relationship or influence between variables from books and journals both offline in the library and online sourced from Mendeley, Scholar Google and other online media.

In qualitative research, literature review must be used consistently with methodological assumptions. This means that it must be used inductively so that it does not direct the questions posed by the researcher. One of the main reasons for conducting qualitative research is that the research is exploratory, (Ali & Limakrisna, 2013).

This article analyzes and discusses the variables of Human Resource Management (HRM) including: Technology, Environment and Organizational Strategy. Where Technology, Environment and Organizational Strategy affect the Organizational Structure, previous research and articles relevant to this article include:

1. The Effect of Technology on Organizational Structure

   According to experts, the understanding of technology on organizational structure is technology which is one component that can affect the structure and function of an organization (Pugh, 1996). The ability of technology has changed an organization that is no longer limited by horizontal, vertical or external boundaries that are carried out by a predetermined structure, oleir Jack Welch formed an organization known as an organization without boundaries (Robbins & Coulter, 1999).

   A company's information technology is influenced by several factors, one of which is the characteristics of information technology users. Differences in the character of information technology users can affect behavioral aspects (Morgan & Syam, 1999). This behavior is assessed by the user's response to information technology theoretically described by information technology development experts as users and their influence on the use of information technology, so that from the behavioral aspect of users it also influences perceptions and attitudes in accepting and mastering information technology (Davis & Jogiyanto, 2007). . To obtain efficient and effective performance results, organizations are required to be able to interact with existing information technology and also utilize information technology to help achieve goals.

   The relationship between Information Technology and Organizations is increasingly inseparable, interrelated towards organizational change that is adaptive, responsive, has high flexibility, and the future organization is an organic organization. Utilization of categorical information technology and supported by the competence of members who run it can improve the performance of the company or the performance of interrelated individuals. The impact of information technology is on individual users and improves company performance.

   Information technology has a great influence on work capacity. Mastery of information technology has a positive value on performance so that the higher the mastery of information
technology, the higher the quality performance. It is concluded that the mastery of information technology has a positive and significant impact on quality and effective performance.

Technological variables on organizational structure have been widely studied by previous researchers including: (D. Ariyadi & IP. Astuti, 2021), (RC Annisyah, A Budiono, 2021) dan (A. Mawarni & D. Dharminto, 2021).

2. The influence of the environment on the organizational structure

The environment is the implementer and is a force that can affect the ability for activities to run well. According to some experts, the organizational environment is a complex network of changing forces that affect the way the organization operates (Jones, 1998). According to (Jones, 1998) the organizational environment is a set of forces around the organization that have the potential to influence the way the organization operates and access to scarce resources. Organization is a social system that has systematic work methods made by humans and which consists of a group of humans in order to achieve one goal (Sembiring, 2012).

Humans need organizations in the context of their interactions with fellow humans or with the environment. Almost everything in life cannot be separated from the organization, both formal and informal. All organizations, both formal and informal, are combined and maintained together by groups of people who see the benefits of working together towards a common goal. According to (Stoner, 1995) said that a very basic element in any organization is the goal (goals) or goals. All organizations also have some program or method to achieve their goals, namely plans, because without a plan to work on, it is unlikely that any organization will act effectively.

Conditions and situations of an orderly work environment can be created if there is a proper arrangement in an organization. According to (Sarwoto, 2011) says that a good work atmosphere is produced by a well structured organization, a poor working atmosphere is caused by an organization that is not well structured.

Organizational climate According to (Wirawan, 2008) is the response of organizational members personally or in groups related to the organization about what exists or what is happening in the organization's internal environment on a continuous basis, influencing organizational behavior and the performance of organizational members which then determines organizational performance.

A conducive work environment can have a direct effect on employees in improving employee performance. The work environment is concluded to be good if it can carry out activities optimally and comfortably. Based on this, it can be concluded that if the work environment is improved, employee performance can increase. The environment includes many aspects, both physical and non-physical which are expected to produce maximum and effective performance outputs.

Environmental variables on organizational structure have been widely studied by previous researchers including: (N. Harianja, N. Hasibuan & W. Pariamsyah, 2021), (E. Alfiyah & Y. Yunita, 2021), (Jayanti, 2021) dan (Fitriyani, 2021).

3. The Influence of Organizational Strategy on Organizational Structure

According to some strategists, it is a use for battle in order to win the war "the use of engagements for the object of war", then he added that politics or policy is what happens after the war (War is a mere continuation of politics by other means / Der Krieg ist eine bloße Fortsetzur der Politics mit anderen Mitteln) (Clausewits, 1780). Initially strategy was a word
used in the military when it was at war, but with the development of the era, the term strategy has entered into every aspect of life, be it economics, education or sports.

Strategy is a combined program to highlight the company's strategic features with environmental challenges, designed to determine the company's main goals can be achieved through proper implementation by the organization (Glueck and Jauch, 1989). General Understanding Strategy is the process of setting plans for leaders that focus on the long-term goals of the organization, as well as a series of ways or efforts to achieve these goals.

Aspects of organizational structure greatly affect specific aspects of the efficiency of an organization, for example workers become more connected to the organization and feel more satisfied if they have the possibility of getting greater responsibilities, and if tasks allow for greater involvement and contain more variety but the terms and conditions regulations are determined as small as possible, if the organization or work group is not too broad (Steers, 1998). Indirectly defining the description of the organizational structure is assessed from the behavior of human resources that can affect the effectiveness of the organization.

Developing the organizational structure of the leader is also able to determine expectations about what individuals and groups will carry out to achieve goals in an organization (Ivancevuch, 2007). Organizational structure is a medium to help the organization achieve its goals, organizational effectiveness can be defined as the extent to which an organization carries out its goals.

Strategies are designed and implemented to achieve various goals that have been set as well as maintain and expand the organization's activities in new fields in order to respond to the environment (e.g., changes in demand, changes in supply sources, changes in economic conditions, technological developments, and activities of competitors). Important reasons why a change in strategy is necessary or even necessitated a change in organizational structure, namely: Structure usually describes how policies will be structured and Structure usually describes how resources will be shared.

The progress of an organization depends on the obedience of all elements that exist consciously in synergy to achieve the expected goals. Therefore, a deep understanding of organizational theory and strategy is needed so that the organization can develop more optimally. Strategy design is a process of a series of activities aimed at building the vision and mission of the organization.

Organizational Strategy Variables on Organizational Structure have been widely studied by previous researchers, including: (MH. Samiaji, I. Hidayat & S. Najah, 2021), (MI. Effendi & T. Kusmantini, 2021) dan (S. Suprapto, R. Rifdan & HA. Gani, 2021).

Conceptual Framework

Based on the formulation of the problem, theoretical studies, relevant previous research and discussion of the influence between variables, the framework for thinking in this article is as follows.
Based on the conceptual framework picture above, then: Technology (X1), Environment (X2) and Strategy (X3) affect the Organizational Structure.

Apart from these three exogenous variables that affect Organizational Structure (Y), there are many other variables that influence it, including:

a) Competence: (Ansori & Ali, 2017), and (Ridwan et al., 2020).
b) Creativity: (Desfiandi et al., 2017), (Yacob et al., 2020), (Richardo et al., 2020), (Christina Catur Widayati et al., 2020), (Prayetno & Ali, 2020b), (C.C. Widayati et al., 2020).
c) Culture: (Purba et al., 2017), (Brata et al., 2017), (Harini et al., 2020), (Elmi et al., 2016).
d) Knowledge: (Desfiandi et al., 2017), (Prayetno & Ali, 2020a), (Mukhtar et al., 2016), (Brata, Husani, Hapzi, Baruna Hadi Shilvana Ali Brata, Husani, Hapzi, 2017), and (Toto Handiman & Ali, 2019).

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the formulation of the article and discussion, a hypothesis can be formulated for further research:

1. Technology affects the organizational structure. If the technology applied by the company is appropriate and can improve work efficiency, it will have a positive impact on the organizational structure.
2. The environment influences the organizational structure. If a conducive environment is applied by the company to improve employee work performance, it will have a positive impact on the organizational structure.
3. Organizational strategy affects the organizational structure. If the company's organizational strategy is set well and can assist the organization in achieving its effectiveness and goals, it will have a positive impact on the organizational structure.

Suggestion

Based on the conclusion, the suggestion in this article is that there are many other factors that can affect the Organizational Structure, apart from Technology, Environment and Organizational Strategy at all types and levels of an organization or company, therefore further studies are needed to look for these factors. Anything else that can affect the Organizational Structure other than the variables studied in this article. Other factors such as Organizational Scale, Leadership Ability and Organizational Culture.
BIBLIOGRAPHY


