FACTORS THAT INFLUENCE INNOVATION
AMONG EMPLOYEES IN SELECTED ORGANIZATIONS

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ABSTRACT: *Technology disturbance has forced many organizations to make changes by transforming its program into a business structure to stay relevant in the industry. This scenario has become more serious with the emergence of globalization around the world and the economic uncertainty. Innovation is a key factor that can help the organization to sustain its existence in the future. Therefore, the company has to embark on innovation within the organization before proceeding with the new development of products or services. A quantitative study has been conducted using questionnaire methodology to 150 respondents in three (3) different organizations which are Bank Rakyat, TNB Research Sdn. Bhd. and DXC Technology Malaysia to determine factors that influence employees in cultivating innovation mindset in these selected organizations. From the findings, organization culture acts as the most important role in cultivating innovation mindset in an organization. Hence, organizations need to create a culture that emphasizes ideas among the employees so that everyone can contribute to realizing the company's innovation agenda and helps to achieve the company's mission and vision.*

1.   INTRODUCTION

Innovation plays an important role to encourage an organization to grow and survive in the industry. In view of that, understanding of innovation is needed to ensure its implementation is meaningful with high impact to the organization. Thus, innovation can be described as a way of creating or adding something new to the existing product or services in the market. Recently, people have defined innovation as the development of new technology or the application of new technology. No matter what the interpretations are, innovation objective is still the same which is to produce new products or services with the application of new technology as a resource.

The need to add value to a product is required to create benefit to the company. Innovation generally refers to changing processes or creating more effective processes, products and ideas [1]. Usually, the process of innovation started with the scratch ideas from various resources which probably end up with good innovation after holistic consideration takes into account. Henderson and Lentz (1995) emphasized that innovations are about the implementation of innovative ideas. But the idea itself will not help to produce something different unless it comes with creativity [2]. Basically, innovation can be defined as a process that has value-added to an organization, suppliers, and manufacturers, create new policies or solutions to a product or services in new ways of marketing [3].

Problem Statement

Today, the biggest challenge for the organization is how to turn innovation into reality. With globalization, every organization knows the impact if the organization still realized that in order to transform in better way, they need to innovate their entire organizational structure which includes various aspects such as reviewing company objectives, company strength & weakness, human resources, technology use, product & service quality, research & development and their competitors in the industry. But, the main question is whether innovation can help the company to continue to compete in this challenging world. We have to realize that innovation alone doesn't guarantee the organization's

success. It's just as a tool in helping the organizations to change better. In fact, there are many large companies around the world like Apple, Tesco, and Gaps that have made various innovations had also experienced a decline in sales of their products or services. Most importantly, innovation is a process that has continuity and needs to be continued from time to time. Every organization should look back at the factors that are relevant to their organization for innovation process [4].

Leadership for each department in an organization should be open to employees throwing any ideas or whether the management has a good relationship with each employee. Employees are among the most important sources of an organization that contribute innovation to the company. Also, environmental factors play an important role because the conducive working environment will attract employees to give full attention to their work continuously. The employees will also be more motivated if the company cares for their welfare such as giving reward when contributing a thoughtful idea, flexible working hours and so on. Most importantly, the condition in the organization itself such as work culture, ethical and values also contribute to the innovation process. If the organization has a good administrative structure it will help in realizing its objectives and goals. Therefore, a study should be conducted to identify and determine the factors that could cultivate innovation in an organization.

2.   LITERATURE REVIEW

Innovation has become a special recipe for a company seeking growth. Through innovation in product or services, an organization can drive revenues and profits to new heights. For the past 10 years, there has been a rapid increase in organizations that are introducing innovative products and services. For an organization to be in the market and beat the existing competitors, an organization should emerge from their comfort zone. The ability to imagine the novel and useful ideas in any areas is called creativity while the ability to use that ideal in real life is called innovation. Many researchers believe that creativity and innovation must come together. Creativity is the starting point for innovation where different ideas produced from what has not been done before

[5]. Creativity is considered an asset in an organization because creativity comes innovation. The organization needs to hire more creative people so that it became more innovative.

Nevertheless, an organization has an option to develop existing staff to be creative and thus lead to innovation.

In the business world, for an innovative idea to be useful to an organization, it has to be replicable without being too expensive and it has to resolve a particular need. Multiple past studies have been considered and analyzed to build up a theoretical model in understanding the factors that cultivate innovation in an organization [6]. After further analysis of the past research done and validating it, the following factors are found to be cultivating the innovations in the organization.

The factors with references to the organization were explained from this research paper as shown in Figure 1.
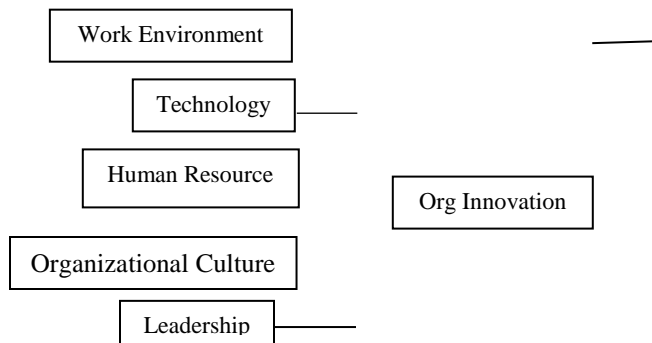

Figure 1: Study Framework

Leadership

The ability of an individual to influence and guide followers in a group or an organization. Leaders should be able to lead the group of people, guide and motivate all the players in the organization. In an organization, the pullback factor in innovation is not the mind-set of the employees alone but that of leaders. Mostly employees have many ideas but usually, the leaders would hardly listen and this idea would go to waste when leaders choose to argue that the organization has no time for new ideas. Hence, in an organization, if there are leaders who believe and trust in innovation as the survival and growth tool of an organization, this can cultivate the innovation culture.

A survey was conducted from the consulting firm McKinsley found that 70% of the top executive said that one of the top drivers is an innovation for the next three-five years to grow their companies. This survey is taken for leadership and innovation around the world from various industries that involve 722 top executives (Senior Vice President level) and 736 lower-level executives. The speed up the change in companies is the most important for global environmental innovation. The strategic leaders are moving beyond traditional product and service categories to pioneer innovations in business process, value chain, distribution, business model and management function [7]. The organization should take a step to formally integrate innovation into the strategic management goals of leaders of an organization. Hence, innovation should be encouraged, managed and measured along with the organization's growth

to help in nurturing innovation culture based on trust among employees. Besides, the employees can understand that their ideas are valued and feel safe to present new ideas with their top leader. This situation is more effective rather than monetary incentives for promoting innovation in an organization.

Work environment

Work environment constitutes various groups in an organization and the relationship it has may lead to innovation. The conduciveness of creativity and innovation in the organization has affected the work environment [5]. So, a positive impact can develop creativity and innovation from the work environment which accepts the changed in organization. The work environment also involves external group such as suppliers, consumers, competitors, regulatory bodies and scientific or technical reference groups to which major organizational subdivisions relate with environmental uncertainty have a positive relationship with innovation [8].

The external social environment has an effect on the inside work environment of the organizations, the relationships were examined among the social environment of organizations, employee satisfaction (both job-related/on-job & off-job and personal), and perceptions of a creative work environment. This indicates that there is a significant association between the social environment of the organization and satisfaction within the organization and personal lives and the potential for innovation. Pleasure and pride in the work, freedom, and other personal variables were also found to be related to an innovative climate [9]. Thus, it can be said that work environment both internal and external play a role in cultivating innovation in an organization.

Technology

Between the 1950s to mid-1960s, the definition of innovation in the business context was synonymous to R&D and during this time, science and *technology* were seen as dominant forces in solving problems. Based on the research done by Cohen and Levinthal (1989), firms must have access to technology to be able to develop technology-intensive radical innovations. However, access to technology alone is not sufficient [10]. The technology must be embedded into new products or services. To encourage the development of technology-intensive radical innovations, besides hiring employees who specialize in science, engineering or technology, the management needs to follow a different set of business and management practices [11].

Technology also involves around work process. An organization may adopt an innovation that involves technology that may shorten the work process without compromising the quality of the work. If an organization wants to develop innovation through technology, the organization is basically exposing the business at risk because adopting new technology requires a lengthy period of time before solid adoption occurs. Technology is said to be a driver for cultivating innovation in organization because of the exhaustive period for employees in an organization to create technological ideas that can be embedded in new products or services and also work process. Cultivating innovation through technology must be aligned with appropriate technology. According to Cohen (2004), appropriate technology is effective, affordable, culturally

accepted, locally sustainable, efficient and measurable [12]. Therefore, leaders and employees need to push the boundaries of their thinking if they want to lead in technological advancement and this in a way helps in cultivating innovation in an organization.

Human Resource

Organizations are run by human beings which planned, implemented, executed, monitored and controlled all functions with the technical aid. Besides, human beings also create all the innovation into the organization. It is shown that innovation can be promoted by nurture human resource [13]. Organizations must develop policies, practices and training programs to make the human resource more productive, efficient by developing or creating and adopting innovations. The human resource may help in cultivating innovation in an organization in a way such as developing suitable organization structure, staffing system of an innovative organization, setting individual responsibilities, individual career development, building teamwork and leadership, performance measure and reward system and also creating creative culture.

From recruiting potential staff that has high creativity to sending them to creativity training to enhance innovation in an organization, human resource management plays a vital role in cultivating innovation in an organization. Based on research by Edralin (2010), it emphasized the importance of human resource management to select employees with beliefs, behaviors, and mindsets aligned with the company's own set of values. Finding the right fit will benefit both the company and the new staff in the long run. It is also essential for training managers, management representatives and supervisors to strengthen their core competencies and commit to building a strong entrepreneurial mindset and culture among members of the rank and file [14].

Organization Culture

A system of shared assumptions, values, and beliefs which governs how people behave in an organization can be defined as organizational culture. These shared values have a strong influence on the people in the organization. Every organization has a unique culture – values, beliefs, ethos, stories, heroes, rites and rituals, a cultural network and a way of doing things idiosyncratic to the organization - that influences its performance. The culture can be influenced and manipulated by the management by altering the management style and changing the vision statement. Top managers in innovative firm act as role models; they shape the culture through the creation of symbols, ideologies, and beliefs [15].

Peters and Waterman (1982) propagated the philosophy of 'respect the individual'. This coupled with the lack of a rigid chain of command promotes a feeling of kinship and loyalty– a belonging within the organization. Highly successful companies operate on this philosophy [16]. Companies with strong cultures, in which everyone knows the goal of the corporation and where the employees are working for these goals, perform better than companies with a weak culture in which employee goals are divergent from those of the management. The essence of an organizational culture of creativity and excellence consists of a high orientation towards work excellence, a feeling of duty towards the attainment of the goals of the organization and cooperation among the employees in the performance of their tasks based on mutual trust and regard. Creativity, excellence, and innovation achievement are very important for the organization moves towards sustained high performance by shared widely with the members of the company.

To turn an idea into a product of the company and create an innovation culture, the company should encourage teamwork in organizations. So, the appropriate qualifications of employees should have with their job placed [17]. Efforts should be made to make them committed and motivated. Apart from the supportive culture, an innovation-oriented company requires a distinctive management style and organizational practices that reinforce creativity in an individual. Based on these past studies, it shows that organizational culture does have an influence on innovation in an organization.

3.   METHODOLOGY

Research Instrument

The research method used is a descriptive survey using a quantitative method which is the set of questionnaires distributed to the respondents. A descriptive study can give a picture or information about a situation at a certain time, as well as help to plan for future research. Descriptive studies only involve causes and consequences based on the data obtained. Questionnaire forms are used as tools to obtain the desired information. The questionnaire is one of the easiest and fastest methods for obtaining research information.

Research Sample

This study focuses on the cultivating factors that influence innovation mindset in among employees in Malaysia. This study uses primary data from a questionnaire survey. The questionnaire contains two major parts. Part A is designed to gather information on respondents' demographic background and Part B contains questions on employees' perception on the cultivating factors which have been identified as the independent variables in this research such as Leadership, Work Environment, Technology, Human Resource, and Organization Culture. These questionnaires are measured by a 5-point Likert scale ranging from 1 as "very dissatisfied" to 5 as "very satisfied".

The respondents are employees from three (3) large companies in Malaysia such as DXC Technology, Bank Rakyat and TNB Research Sdn. Bhd. Convenient sampling was chosen because the study is a preliminary survey where the collection can be made immediately [18]. The survey was administered to the management level and non-management level staff. Demographic information of the correspondent surveyor is depicted in Table 1. All questionnaires were returned and usable amounting to 100% of the true response rate.

4.   FINDINGS

Respondents

From Table 1, the majority of the respondents are male which make up 63.3% of the overall sample. Most of the respondents are between 21 to 30 years old (40.7%) followed the group of staff between 31 to 40 years old (36.7%). Only 5.3% of the staff above 50 years old participated in the survey. Meanwhile, majority of the respondents are from the non-management category (82.7%).

Table 1: Respondents Profiles (N = 150)

Items	Frequency	Percentage (%)
Gender		
- Male	95	63.3
- Female	55	36.7
Age		
- 21-20	61	40.7
- 31-40	55	36.7
- 41-50	26	17.3
Above 51	8	5.3
Level		
- Management	26	17.3
- Non-mgmt	124	82.7

Reliability Analysis

Cronbach's alpha is a common measure of internal consistency (reliability) of a test or scale. Internal consistency describes the extent to which all items measure the same concept or construct and hence it is connected to the inner-relatedness of the items. According to Uma Sekaran (2000), Cronbach's Alpha is a reliability coefficient that indicates how well the items in a set are positively correlated to one another. The closer the Cronbach's Alpha is to 1, the higher the internal consistency [19].

From the study, the reliability coefficients for all instruments were above 0.7. According to George & Mallery (2003), an acceptable reliability score should be 0.7 or higher [20]. In this research, scales which have Cronbach's alpha coefficient greater than or equal to 0.7 will be accepted. From Table 2, the reliability values of the variables are in the range of 0.86 to 0.98, which exceeded the minimum acceptable level of 0.70. The reliability coefficients for the five factors which cultivate innovation mindset were relatively high, which are the value of 0.9. The reliability value of the dependent variable, organization innovation is 0.87. Therefore, the measurement of variables used in this study is considered to be reliable as shown in Table 2.

Table 2: Reliability Coefficients of Variables

Variable	Cronbach Alpha
Leadership	0.97
Work Environment	0.96
Technology	0.96
Human Resource	0.98
Organization Culture	0.97
Org. Innovation	0.86

Descriptive Analysis

Exploratory factor analysis is a statistical technique which is used for data reduction and summarization. The primary objectives of exploratory factor analysis are to determine (1) the number of common factors influencing a set of measures; and (2) the strength of the relationship between each factor.

Table 3 shows the means and standard deviations of the factors that influence innovation among the employees. It is important to examine the overall results of the cultivating factors which are divided into low, moderate and high based on the mean scores. The work environment has the highest value followed by organization culture. Both factors are considered to be high in relationship strength whereas the rest of the factors are moderate (1.8 – 3.4) in strength.

5.   CONCLUSIONS

Without a doubt, innovation is important for all types of the organization regardless of its categorization as a business or non-business organization. Innovation acts as an important tool to be competitive and cost-effective in the market place. It will help the organization in sustaining the ever-growing dynamics of the market and help the organization grow. For innovation to be cultivated among employees in an organization, the environment and culture of the organization play important roles in motivating the staff to be creative and innovative.

The organization that has innovation values will directly motivate the employees to think outside the box. With innovative values, employees are not afraid to give ideas and the organization does not need to provide a reward for ideas given because employees are enthusiastic and willingly give new ideas for the benefit of themselves and the organization. Based on this research, other variables to cultivate innovation in an organization are leadership, technology and human resource. The organization must have enough expertise to choose from in order to maximize innovation and it is also possible for the organization to add more factors that are not listed and explained in this study. Future study is necessary to help us recognize the factors which can help to produce a healthy culture within an organization in a Malaysian company.

Although this study has provided empirical support on the relationship between five (5) factors which cultivates innovative mind-sets among the employees, it does have numbers of limitations. First, this research is limited to the context of Malaysian private companies. Hence, the results of this study may not apply to others. The use of purposive sampling also indicates the issue of representativeness. Future studies should include multiple participants representative of the critical positions in the organizations. Inclusion of department heads, directors, presidents and various vice presidents will enhance the efforts to obtain a meaningful assessment. Lastly, causality could not be inferred due to the limitation of sampling and research design. In order to enhance representativeness, future research could address a bigger population which could enable generalization. Despite all these limitations, this study is expected to stimulate further, comprehensive studies in the future.

6.   REFERENCES

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