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THE INFLUENCE OF STRATEGIC MANAGEMENT INFORMATION SYSTEM, STRATEGIC PARTNERSHIP ON ORGANIZATIONAL PERFORMANCE MEDIATED BY ORGANIZATIONAL CULTURE IN OCCUPATIONAL SAFETY AND HEALTH (OSH) SERVICE CENTER IN INDONESIA

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Abstract

The main objective of this research is to analyze the organizational performance of Occupational Safety and Health (OSH) Service Center in Indonesia by observing the influence of strategic management information systems and strategic partnership factors and the mediating effect of organizational culture factors. This research was conducted within the scope of Occupational Safety and Health (OSH) Service Center in Indonesia, namely: Jakarta, Medan, Bandung, Makassar and Samarinda, with 180 respondents. The data obtained were analyzed by SEM (Structural Equation Modeling) using the Smart-PLS (Partial Least Square version 3.0). This study found that the factors of strategic management information system and strategic partnership have a significant and positive effect on organizational performance at Occupational Safety and Health (OSH) Service Center in Indonesia. This study also found that the mediating effect of organizational culture factors had a significant effect on organizational performance. This study found novelty in the need for regulatory changes so that integrated supervisory tasks were included as tasks and functions of the Occupational Safety and Health (OSH) Service Center which had so far been carried out by the Provincial Workers Office.

Keywords: Strategic management information system, strategic partnership organizational culture, organizational performance.

Introduction

The world economy is currently in its fourth era, the era of the creative industries. The era of the industrial economy has slowly begun to shift toward the creative economy. The shift from the agricultural era to the era of industrialization, followed by the era of information and creative economy accompanied by many new discoveries in the field of information technology and economic globalization, have led human civilization into a new arena of social interaction that had never been imagined before. The creative economy favors ideas and knowledge to build and strengthen business activities. Therefore, at this moment, developed countries are doing economic transformation into creative economy (Khristianto, Supriyanto and Wahyuni, 2015). The development of the industrial sector in Indonesia certainly has a positive impact on improving the economy with large employment absorption, but these developments also have a negative impact, namely the occurrence of workplace accidents and other problems related to work safety and occupational diseases. When managing its activities, the industry uses a variety of work equipment and work environments with various levels of technology ranging from simple technology to advanced technology. The more advanced the technology used, the higher the risk of hazards it faced. The risks experienced by workers or workers are in the form of accidents, disabilities, illness, and death due to work accidents. Risk is defined as a *"source of danger or situation that has the potential to cause injury and illness"* and is the nature / characteristics of the production process that has the ability to endanger individuals. (International Standards Organization 45001, (ISO 2018)). Therefore, to overcome those risks, efforts need to be made both by workers and employers, in order to provide protection, one of which is through work accident prevention programs to create decent work and help to improve work productivity. Prevention programs emphasize basic protection for workers who are more vulnerable in a workplace. Therefore, the employer bears the main responsibility and morally he/she has an obligation to improve the protection and welfare of his/her workers. Various efforts have been made by the government to solve this problem, one of which is by improving the quality of its human resources so that the quality of the workforce is reliable and transparent, inspecting the work environment, inspection of labor norms, promotion of OSH, at the workplace and also carried out by employers to provide protection for workers in Indonesia. One of the service units that provide OSH services to employers and workers for handling occupational safety and health is known as the Indonesian Occupational Safety and Health (OSH) Service Center. Occupational accidents in Indonesia are still very high, 80% happened due to unsafe behavior so that accident prevention efforts have changed from engineering techniques (eliminating unsafe conditions) to management so it would not at least cause huge losses. The OHS Management System (SMK3) aims to create an OHS system by involving management, workforce, conditions and integrated work environments in order to prevent and reduce workplace accidents and diseases as well as the creation of a safe, efficient and productive workplace. The OHS management system is seen as an effective system in dealing with OHS challenges in the era of globalization. Based on BPJS Ketenagakerjaan data (2018), work accident cases up to now show an increase rate from 2016-2018. National work accident cases reported in 2016 were 101,357 cases, in 2017 there were 123,041 cases, while in 2018 cases there were 157,313 cases, and these cases were dominated by cases of minor work accident cases in the work environment with industrial characteristics in the factory. In North Sumatra Province, work accident cases reported in 2016 accounted for 856 cases, in 2017 there were 937 cases and throughout 2018 there were 1,298 cases, an increase in work accident cases from 2016 to 2018.

Literature Review

Understanding Strategic Management Information System (SMIS) according to The Encyclopedia of Management, *"management information systems are planned and organized approaches to supplying excellence with intelligence aids that facilitate the managerial process."* (Management information systems are approaches that are planned and structured to provide expert assistance that facilitates the managerial process for chief

officials and decision makers). Understanding this system according to Romney and Steinbart (2015), is a series of two or even more interconnected components, which interact to achieve a goal. Most systems consist of smaller subsystems that support larger systems. The definition of the system according to Mulyadi (2016), is "*a network of procedures that are made according to an integrated pattern to carry out the main activities of the company*". Based on that definition, it can be concluded that the system is a collection of components that are interrelated one with another to meet the objectives in carrying out a company's main activities. Information is very important for the company in considering any alternatives before making every decision. Etymologically, information comes from the ancient French language information (in 1387) taken from the Latin *informationem* meaning "*outline, concept, or idea*".

According to Fauzi (2015), strategy is an action plan that aligns organizational resources and commitment to achieve superior performance. Strategy is the determination of decisions that must be taken against competitors in an interdependent life environment and determination of the goals and objectives of a fundamental organization that is long-termed. Business strategy is a basic decision taken by top management that determines in the line of business in a dynamic organization nowadays and where it will be in the future. The concept of strategic partnership is needed by the organization to achieve its goals while utilizing the resources of other organizations. Strategic partnerships can be seen as tools for competitive advantage, but depending on the circumstances in which organizations find themselves, there are various types of partnerships or collaborations that organizations could undertake. There are partnerships between businesses and business organizations, businesses and public organizations are often referred to as private public partnerships, and there are also multi-stakeholder partnerships that could include private companies, public organizations and development agencies or non-governmental organizations. Public private partnerships and multi-stakeholder partnerships are common in addressing socio-economic development challenges (Maurrasse, 2013). The definition of partnership based on the opinion of Cravens (2013), is an effort to work together with stakeholders which includes vertical relationships consisting of relationships with suppliers and customers, as well as horizontal relationships consisting of lateral and internal partnerships. Wheelen, Hunger, Hoffman and Bamford (2015) propose the concept of cooperative strategies that are used to create competitive advantage in an industry by working together with other companies. Partnership refers to a long-term relationship and is based on mutual recognition and understanding between involving parties that the success of each company in a transaction is intrinsically interdependent on the other.

Efforts to build strategic partnerships, of course, require strategic thinking. According to Lopez and Hicks (2017) strategic thinking is a long-term perspective for problem solving and decision making where practitioners improve thinking performance from various time frames with a focus on what must be achieved to reach the desired results. Strategic thinking refers to improve performance by offering opportunities to increase value, specifically aimed at the organization's strategic priorities. Strategic thinking involves analyzing goals, planning beforehand; think about how people, processes and structures come together; focus on unique advantages or organizational differences; and identifying gaps between where the organization nowadays and where it will be in the future and then to design improvements aligned appropriately to help organizations obtain its desired results. The implementation of partnerships in modern management is an understanding of the strategy of developing program among partners who are partners is the main factor that must first be considered. Therefore among the partner institutions there must be a main actor in the activity, as an institution or person responsible for the success of the program (activity). Weaknesses and strengths possessed by each institution or person that worked together would be able to increase mutual benefits and minimize mutual costs. Partnerships can be done in the transfer of technology, transfer of knowledge / skills, transfer of human resources, transfer of ways of

learning (learning exchange), transfer of capital, or any various things that could be useful so to integrate in its full form.

Strategic partnership as stated by Wheelen, Hunger, Hoffman and Bamford. (2015), “*partnership strategies are used to create competitive advantage in an industry by working with other companies through long-term relationships and based on mutual recognition and mutual understanding*”. The partnership dimension which adopted the study of Sofani, Miyasto and Djastut (2017) showed that indicators of partnership variables consist of: emphasis on high quality, long-term relationships, joint problem solving, continuous improvement, and planning and setting common goals. In the opinion of Reid (2016): the concept of a good partnership must be supported by aspects such as awareness, openness, consistency of objectives, leadership, systems, human resource development and flexibility. All aspects of partnership mentioned above are included in the dimensions of resources, relationship quality factors, flexibility factors that could affect organizational performance as measured through the balanced scorecard dimension, as mentioned by Wiraeus and Creelman (2018), with dimensions such as internal business process performance, financial performance, and customer performance. Based on the conceptual framework of the research carried out previously, the development of hypotheses to be carried out in research is the following below:

H1: Strategic management information system has a positive and significant effect on organizational culture.

The first hypothesis is about the positive and significant influence of strategic management information systems on organizational culture. Information in organizations forms as a basis for decision making in is a work culture of management to produce a strategic policy. Wiraeus and Creelman (2018) stated that the evidence-based decision making process must be carried out by analyzing data and information.

H2: Strategic partnership has a positive and significant effect on organizational culture.

The second hypothesis is about the positive and significant effect of strategic partnership on organizational culture. Partnership strategy as an organization's efforts to achieve common goals. In accordance with the principle of partnership mentioned by Wiraeus and Creelman (2018), that partnerships must include behavior and develop each other based on clear expectations and mutual commitment.

H3: Strategic management information system has positive and significant effect on organizational performance.

The third hypothesis is about the positive and significant influence of strategic management information systems on organizational performance. The use of management information systems in business organizations supports business processes, competitive strategies and business operations that produce an impact on the performance of the organization's workforce.

H4: Strategic partnership is influential; positive and significant towards organizational performance.

The fourth hypothesis is about the positive and significant influence of strategic partnership on organizational performance. Partnership is a relationship that combines resources and expertise in achieving strategic goals that cannot be done if only achieved by themselves.

H5: Organizational culture has a positive and significant effect on organizational performance.

The fifth hypothesis is about the positive and significant influence of organizational culture on organizational performance. According to Wiraeus and Creelman (2018), changes in work behavior will encourage changes in performance because work improvement processes by considering the resources available in the organization will increase significantly strategic capabilities.

H6: *Strategic management information system has a positive and significant effect on organizational performance mediated by organizational culture.*

The sixth hypothesis is about the positive and significant influence of strategic management information systems on organizational performance mediated by organizational culture. Information management in the organization must be implemented in the organization so that it becomes a work culture, which will improve organizational performance.

H7: *Strategic partnership has a positive and significant effect on organizational performance mediated by organizational culture.*

The seventh hypothesis is about the positive and significant influence of strategic partnership on organizational performance mediated by organizational culture. Collaboration with partners will change the behavior of members of the organization and will improve organizational performance. According to Reid (2016) in a cross-sector partnership requires a long-term commitment to foster positive attitudes and behavior through the concept of building an organizational culture that can work more effectively.

Research Methodology

This research is a quantitative study that needs data through a survey using a questionnaire to test the hypothesis. Hypotheses are made to see the characteristics of certain relationships, the relationships that affect and are influenced by the variables studied. Testing the hypothesis of the influence of the strategic management information system consisting of informational strategy dimensions, organizational strategies, business strategies and the influence of strategic partnerships itself consist of the dimensions of resources, relationship factors, flexibility factors, and the influence of organizational culture itself consists of dimensions of new innovation, team orientation, outcome orientation and the influence of organizational performance itself consists of internal dimensions of business process performance, financial performance, customer performance. The type of relationship between variables examined here is causal. The study was conducted within the scope of Occupational Safety and Health (OSH) Service Center under the Directorate General on of Labor Inspection Development and Occupational Health and Safety at the Ministry of Manpower. The unit of analysis in this study was the OSH Central Technical Implementation Unit (UPTP OSH) represented by all employees of the unit. Based on the time dimension, this research is a cross sectional study. Data obtained, processed and analyzed using Structural Equation Modeling (SEM) analysis tools.

Result and Discussion

Occupational Safety and Health Service Center is an organization of Central Technical Services Unit (UPTP) which is under supervision of the Director General on Labor Inspection Development and Occupational Health and Safety, regulated by Presidential Regulation No. 18 of 2015 concerning the Ministry of Manpower, and Regulation of the Minister of Manpower of the Republic of Indonesia Number 23 of 2015 concerning the organization and working procedures of technical implementing units in occupational safety and health with work areas throughout Indonesia, located in North Sumatra - Medan, DKI. Jakarta, West Java - Bandung, East Kalimantan – Samarinda, and South Sulawesi - Makassar. OSH provides services and helps employers to implement occupational safety and health (OSH) throughout Indonesia, so that the company is protected from the risks of occupational accidents and occupational diseases. Samples of respondents in this study were 180 people, taken from OSH hall workers from five major cities in Indonesia with the number of companies and workers, namely Occupational Safety and Health Service Center DKI Jakarta with the working area of the island of Java, the number of companies amount to 16,223,586 and a workforce of 44,571,944 people, the Medan Occupational

Safety and Health Service Center with the working area of the island of Sumatra, the number of companies as many as 4,971,738 and a workforce of 12,402,409 people, and the Bandung Occupational Safety and Health Service Center with the work area of the island of Bali and Nusa Tenggara, 1,517,614 companies and 3,677,578 workers, East Kalimantan Occupational Safety and Health Service Center with Kalimantan island working area, 1,378,969 companies and 3,643,352 workers, Makassar Makasar Occupational Safety and Health Service Center with island working area Sulawesi, Maluku and Papua the number of companies is 2,619,099 and the workforce is 6,023,683 people. (Central Bureau of Statistics, 2018). Strategic information is the effort of Occupational Safety and Health (OSH) Service Center in Indonesia to carry out information, gathering and sharing knowledge, and updating information according to new regulations. The results of the strategic information dimension showed that in general, respondents agreed with the information strategy to be implemented at the Occupational Safety and Health (OSH) Service Center seen from an average score of 3.85. Strategic organization is the effort of Occupational Safety and Health (OSH) Service Center in Indonesia to calculate the impact of employee work, motivating employees to carry out the concepts that have been made, and giving rewards to employees who have successfully carried out the work concept. The results of the strategic organization dimension showed that in general respondents agreed that that organizational strategy had been implemented at the Occupational Safety and Health (OSH) Service Center with an average score of 3.80. The strategic dimension of business is the effort of Occupational Safety and Health (OSH) Service Center in Indonesia to produce attractive service products, conduct services according to OSH regulations and produce services according to quality standards. The results of the strategic business dimension show that in general respondents agreed that business strategy has been implemented at Occupational Safety and Health (OSH) Service Center as seen from the average score of 3.88. Overall for the strategic management information system variable showed an average score of 3.84, illustrating that in general the respondents agreed that the Occupational Safety and Health (OSH) Service Center in Indonesia had implemented information strategies, organizational strategies and business strategies in management information systems. The dimension of internal business processes is the effort of the OSH in Indonesia in the last three years to make products according to OSH regulatory specifications, adjustments to quality standards and attractive services. The results of the internal business process dimensions showed that in general respondents agreed that internal business processes should be implemented by the Occupational Safety and Health Service Center as seen from an average score of 3.78. The financial performance dimension is the effort of Occupational Safety and Health Service Center in Indonesia in the last three years in seeking net profit growth, sales growth and cash flow from its operation growth. The results of the financial performance dimension I showed that in general respondents agreed that Occupational Safety and Health Service Center efforts in achieving financial performance, as seen from an average score of 3.59. The dimension of customer performance is the effort of Occupational Safety and Health Service Center in Indonesia in the last three years to achieve customer satisfaction growth by accelerating product returns, by improving service and customer loyalty. The results of the customer performance dimension indicate that in general respondents agreed that Occupational Safety and Health Service Center efforts in achieving customer performance, as seen from the average score of 3.67. Overall for organizational performance variables showed an average score of 3.68, illustrating that in general respondents agreed that Occupational Safety and Health Service Center in Indonesia had achieved organizational performance viewed from the dimensions of internal business process performance, financial performance, customer performance.

Research on the mediating effect of cultural balance in the process of changing potential capacity to capacitate the realization of innovation in organizations (in this study innovation is assumed to be the development of an information management system at Occupational Safety and Health Service Center conducted by Limaj and Bernroider (2019) states that the absorption of innovation is not moderated by cultural balance. The basic

argument supporting this view lies in the idea that successful organizational performance rests on the ability to complement the values of flexibility, dynamism and stability that control and balance internal orientation and unity with external orientation and competition. The hypothesis formed that a high and balanced organizational culture plays a different role in turning potential capacity into capacity realization, and is related to how cultural values influence the behavior of organizational members. The final analysis shows that the moderating effect of organizational culture does not support the process of changing potential capacity into capacity realization, based on these results Limaj and Bernroider explained that organizational success depends not only on internal conditions but also the interests of stakeholders from outside of the organization, so it is recommended to develop the organization internally (employees) and externally (customers) in developing a better strategic direction.

Conclusions

Referring to the formulation of the problem, research objectives and research hypotheses, after being carried out the SEM statistic, the conclusions of this study are the following:

1. Strategic management information system has a positive and significant effect on organizational culture;
2. Strategic management information system has a positive and significant effect on organizational performance;
3. Strategic partnership has a positive and significant effect on organizational culture; Strategic partnership has a positive and significant effect on organizational performance;
4. Organizational culture has a positive and significant effect on organizational performance;
5. Strategic management information system has a positive and significant effect on organizational performance mediated by organizational culture; and
6. Strategic partnerships have a positive and significant effect on organizational performance mediated by organizational culture.

Based on the findings of this study, it is recommended that Occupational Safety and Health Service Center in Indonesia gives more attention from management to further develop management information systems and improve partnership strategies as an effort to improve the performance of Occupational Safety and Health Service Center in the future.

Likewise, functional staff in the field of OSH should always enhance the efforts to develop information systems as a guideline for working with company partners. Specifically for enhancing the capacity of Occupational Safety and Health Service Center in the field of supervision, new regulations need to be made regarding the duties and functions of OHS supervision so that they are integrated into one unit within the Occupational Safety and Health Service Center organization.

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