

# Analysis of Supply Chain Management Effectiveness

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# Analysis of Supply Chain Management Effectiveness for Financial System of Institutes

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**Abstract-** The purpose of this study is to analyze the effectiveness of the implementation of the supply chain management as the Internal Financial Control System in Financial system of the universities. This research method uses a type of critical qualitative research that is describing, describing, assessing a condition, evaluating, and providing recommendations to SPI with observation, interviews, questionnaires, and document studies. The results reflected the improvement in the efficiency and the effectiveness of SC strategy in connection with the company's short-term strategic financial objectives. The analysis showed that any improvement in the SC operations' performance will lead to better supply chain management (SCM), and consequently enhance the company's overall financial performance. An improvement in SC performance as well as financial performance has been shown for the three conditions (optimistic, normal and pessimistic) following the proposed procedure. In increasing the effectiveness of the implementation of the internal control system at the ISI Denpasar, it needs to be supported by several things including: the application of recruitment patterns and employee career development, the application of risk identification and analysis methodologies, improving communication with external parties, implementing follow-up audit procedures and attention to completeness documentation of the results of activities. The paper follows a systems view which can help in determining the most appropriate SC strategy with regard to targeted financial objectives in education system. This paper benefits from data extracted from a institutes by evaluating the applicability of the model developed under a different set of scenarios.

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**Keywords:** Supply Chain Management, Internal control system, control environment, risk assessment, control activities, information and communication, monitoring.

## 1. Introduction

The purpose of this paper is to introduce and discuss the concept of supply chain quality management (SCQM) in education. It then analyses a particular country case study in light of the concept, presenting empirical evidence of the challenges and good practices relating to it. The number of problems that have shackled from asset and financial management to the low quality of graduates produced is often in the public spotlight. This is of course also a serious concern of the government. Therefore,

reform efforts are needed to improve the quality of education in Indonesia [1-5].

Higher education institutions like other public organizations need good governance for improvement and progress. Good corporate governance (good corporate governance) in managing the organization is a must. Good corporate governance (GCG) issued by the National Governance Policy Committee (KNKG) in 2006 consisted of: (1) transparency (transparency), (2) accountability, (3) responsibility, (4) independence, and (5) fairness and equality. One part of GCG practice is the existence of an internal control system which includes adequate supervision, business ethics, independence, accurate and timely reporting, accountability from all parties involved in the management process, as well as mechanisms to ensure careful follow-up if there is a violation in the organization. For this reason the importance of internal control is expected to encourage the creation of GCG in organizations [6, 7].

The Indonesian Art Institute (ISI) Denpasar is one of the state universities under the auspices of the government that has a role in improving the quality of education in Indonesia. Based on the Regulation of the Minister of Research, Technology and Higher Education (Permenristekdikti) no. 24 of 2015 concerning Organization and Work Procedures of ISI Denpasar, SPI ISI Denpasar is an organization that carries out non-academic supervisory functions. Furthermore according to Permenristekdikti no. 24 of 2017 concerning the ISI Denpasar Statute, the ISI Denpasar SPI has the duty and authority to conduct internal supervision of the management of non-academic fields; carry out the preparation of reports on the results of internal supervision.

Based on observations through interviews with the Chairperson of SPI and related officials about the process of managing non-academic fields at ISI Denpasar, there are a number of issues which have been included in the audit results by the Inspectorate General (Itjen) Kemenristekdikti. Some findings in the 2017 performance audit are as follows:

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**Table 1.** Types of Findings Based on 2017 Performance Audit

No	Types of Findings
1	Shopping does not match or exceed provisions
2	State revenue or late / non-stipulated work fees are collected / received / paid to the state treasury
3	Direct use of state revenue
4	Accountability is not accountable
5	The process of procuring goods / services is not in accordance with the provisions
6	Deviations from the laws and regulations in the field of management or BMN
7	Deposit of cash receipts at the treasurer of receipts to the state treasury exceeds the specified time limit
8	Inadequate planning of activities
9	Entities do not have formal SOPs for control

Source : SPI ISI Denpasar (2018)

Furthermore, based on the findings in Table 1 above, one of the inspectorates provided recommendations to the Chancellor of ISI Denpasar to assign the Head of the Internal Supervisory Unit (SPI) to monitor the follow-up of the audit recommendations. The condition of the existing problems at ISI Denpasar gives an indication that the internal controls carried out have not been effective in supporting a good internal control system at ISI Denpasar. In accordance with the good SPI framework, there are five components that must be present and implemented well in the implementation of SPI (P<sup>25</sup> No. 60 Year 2008 and COSO, 2013), namely the control environment, risk assessment, control activities, information and communication, and monitoring of control activities. Therefore, the authors intend to conduct further research to evaluate "the effectiveness of internal control in the financial sector by the ISS Denpasar SPI in supporting good organizational governance at ISI Denpasar".

1. To describe the problem above, it is formulated into the following problem focus.

2. 1. How is the implementation of the internal control system in the financial sector in terms of five aspects of control according to PP 60 of 2008 in the ISI Denpasar environment?

3. 2. What obstacles / problems are faced by SPI ISI Denpasar in implementing the internal control system?

4. 3. To what extent is the effectiveness of the implementation of the internal control system in the financial sector implemented by SPI ISI Denpasar?

The major aim of this study is to develop quantitative measures to evaluate the impact of a "local sourcing" SCM strategy on the regional economy and industry's ability to create shared value. This research will apply input-output analysis to develop a method to test the efficiency of various locally based SCM strategies.

## 2. Literature Review

### 2.1 Internal control

The Committee of Sponsoring Organizations (COSO) said that internal control is needed to keep an organization running in an effort to achieve its goals and mission, which is based on the supply chain strategy [8-11]. Internal control is expected to create efficiency, reduce asset losses, help ensure the reliability of financial statements, and compliance with laws and regulations. Internal control must be carried out continuously and integrated to deal with potential problems that occur in the organization.

The Committee of Sponsoring Organization / COSO [12] defines internal control as: "Internal control is a process, effected by an entity's board of directors, management, and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the following categories: effectiveness and efficiency of operations, reliability of reporting, compliance with applicable laws and regulations."

Meanwhile, according to Government Regulation Number 60 Year 2008 concerning Government Internal Control System (SPIP), internal control is translated as:

"An integral process of actions and activities carried out continuously by the leadership and all employees to provide adequate confidence in the achievement of organizational goals through effective and efficient activities, reliability of financial reporting, security of state assets, and compliance with laws and regulations."

INTOSAI [13] defines internal control as: "Internal control is an integrated process performed by organization authorities and employees and aimed at identifying risk factors and according to the mission of the organization's performance to assure reasonable implementation of the goals: (1) to implement the performance regular, ethically, economically, efficiently and effectively, (2) to carry out payment responsibilities, (3) to obey valid laws and normative legal acts, (4) to protect resources from loss, from wrong usage and damage and to control the related risk factors."

In [14], COSO introduced a framework of internal control which later became a guideline for executives, boards of directors, regulators, standard setting professional organizations and other organizations as a comprehensive framework for measuring internal control systems in their organizations. The framework consists of five main components, namely: (1) control environment, (2) risk assessment, (3) control activities, (4) information and communication, (5) monitoring. The internal control framework, COSO changed the framework, but did not change the five main components of control within the framework. According to Figure 2 (COSO IC 2013) above the internal control system is described as a process within the organization (entity) that is influenced by the board of trustees (board), management, and other personnel

designed to provide adequate assurance (quality assurance) <sup>17</sup> achieving organizational goals. From this description internal control is designed to provide quality assurance in order to achieve organizational goals.

### 3. Financial Supply Chain Management (FSCM) in educational systems

Supply Chain Management (SCM) is nowadays well established within large organizations as a major tool which offers competitive advantage in terms of cutting down the cost of goods and simultaneously improving customer service. Traditionally SCM was referred to the functions of logistics, transportation, purchasing and supplies. However, the evolution of SCM has moved to focus on integration (e.g. Frohlich and Westbrook, 2001), risk management (e.g. Ellis et al., 2011), sustainability (e.g. Wieland et al., 2016) and optimizing working capital (e.g., Preve and Sarria-Allende, 2010). A required condition for the application of a successful SCM strategy is the efficient cooperation among various, previously independent functions such as sales division, marketing and logistics. The financial factor has not been heavily integrated in these aforementioned procedures, but in the modern globalized economy, which is characterized by high levels of competition and harsh financial conditions, firms are engaged in an endless fight for cost cutting while struggling to gain access to the required funds in order to achieve their goals. The birth of the term FSCM comes from the necessity to identify supply chain management as a single entity and the primary objective of maximizing profit across the whole range of its activities. And the main task of FSCM is to save the capital cost by means of integrated relationships of partners and advanced financing activities in supply chains. Financial <sup>27</sup> Supply Chain Management is generally defined as a set of business and financial processes that link the various parties involved in a supply chain – i.e. the buyer, the seller and the financing institution - with a view to reducing financing costs and ultimately achieve improved business efficiency.

### 4. Research Methodology

This research was conducted at the Indonesian Institute of Arts Denpasar in Denpasar, Bali. The research site was chosen with the consideration that both the data and information needed are easily obtained. The research was conducted in the period of January to May 2019 by conducting interviews with respondents, as well as study documentation on secondary data sources. Based on Permenristekdikti no. 24 of 2017 concerning the ISI Denpasar statute, the ISU Denpasar SPI is an organ that carries out a non-academic oversight function consisting of a chairman, secretary, and 5 members. Apart from SPI members, the researchers considered it necessary to add officials related to financial responsibility and authority in the list of informants. Total informants were 12 people. The data collection technique used is using field research, which is one of the qualitative research methods carried out by visiting organizations directly that are the object of

research with structured interviews and documentation. Analysis of the data used in this research is descriptive analysis with a critical approach. In this research technique will be presented several stages: Analyzing systems and procedures, Analyzing existing problems, drawing conclusions.

## 5. Research Results and Discussion

### 5.1 Interview result

In this study the expert obtained from interviews with the head of the SPI and also the results of the distribution of questionnaires that refer to the list of the Government's SPI research test that has been adjusted to the situation and conditions of the ISU Denpasar SPI. The results of these interviews and questionnaires will be described in each element of the SPI as follows:

**Table 2.** SPI Questionnaire Score Calculation

ICS (12 Respondens)	Yes	No	Test Total	Percentage
1	2	3	4 (2+3)	5 (2:4)
Control environment	96	108	204	47%
Risk assessment	60	120	180	33%
Control activities	180	24	204	88%
Information and communication	72	12	84	86%
Monitoring	108	96	204	53%

Source: Data Processed, 2019

Based on interviews conducted with the head of the SPI, information was obtained about the control environment <sup>21</sup> ment that the SPI had implemented rules regarding the enforcement of integrity and ethical values that refer to the Institute's code of ethics because the SPI unit was a work unit under the auspices of ISI Denpasar. However, to maintain employee discipline, the leadership has not been maximally able to impose sanctions on employees who commit irregularities or violations.

To support the implementation of all activities in ISI Denpasar effectively and efficiently, it must be supported by competent resources to manage them. Therefore, the SPI has provided training for employees as a form of human resource development in supporting the improvement of their competencies so that in carrying out their duties they can be more professional.

In terms of decision making, the SPI Chairperson has conducted a problem-solving method jointly with all employees at the SPI conducted in the form of a coordination meeting where each employee reports on the results of activities carried out by each field and reports what obstacles are faced, and together look for solutions in solving these problems.



SPI has an organizational structure as the basis of responsibility for each field, the formation of the SPI organizational structure is based on the decision of the results of an internal meeting at the Institute level as the person in charge of the SPI work unit that has been adapted to the vision-mission and ISI Denpasar Strategic Plan. In the SPI organization decree, the objectives of the SPI have been explained and the presentation of the duties and responsibilities of each employee is in accordance with the position stated on the organizational structure chart.

From the results of interviews with the head of the SPI about risk assessment, information was obtained that the SPI ISI Denpasar work unit has not applied the identification methodology and risk analysis, only limited to the methodology of resolution and follow-up to the problem in the form of coordination meetings held every certain day in order to obtain information about the constraints faced by each field and together look for solutions to resolve the problem. After that the chairman appoints one employee to follow up to resolve the problem, then at the end of the period the leader evaluates the results of the follow-up to improve the organization going forward.

Based on an interview with the head of the ISU Denpasar ISI about managing information and communication within the SPI, the author obtained information that the SPI has set information standards contained in the form of information SOPs as a reference in supporting the implementation of activities at SPI. In addition to supporting the smooth running of the activity, the leadership has conducted intensive communication to all subordinates in a coordinating meeting activity where each person in charge of the field reports the results of the activities and obstacles encountered and together seek solutions to solve the problem. In addition to the coordination meetings, the leadership also uses communication tools to deliver important information to all employees by sending messages via WhatsApp and Email. To keep abreast of current information and communication, SPI ISI Denpasar has recruited competent non-permanent employees to manage the information and communication.

From the results of interviews with the head of the ISU Denpasar SPI about monitoring activities that have been carried out in the scope of the ISU Denpasar SPI, the authors obtained information that the SPI already had a monitoring / monitoring strategy that ensured that all activities in the SPI had gone according to plan, namely with a coordination meeting held. Then from the results of the coordination meeting the leadership took a follow-up step to correct the constraints faced by appointing employees to carry out the follow-up activities. At the end

of the period, the leader evaluates the results of the follow-up to improve the organization going forward

## 5.2 Analysis of Investigation Results

SPI ISI Denpasar is <sup>39</sup>ed with overseeing the Financial Governance of the Ministry of Research, Technology and Higher Education within the Indonesian Institute of Arts Denpasar. Denpasar ISI SPI Team Period 2017 - 2020, was formed based on the Rector's Decree Number: 8 / IT5.4.1 / KU / 2017. To carry out supervisory tasks within the ISI Denpasar work unit environment including (1) Planning Coordinator, 2) Financial Coordinator, 3) Goods and Services Procurement Coordinator, (3) State Property Coordinator, and (4) Human Resources Coordinator). Whereas its functions are 1) compiling work programs, 2) supervising policies and programs, 3) supervising the management of staffing, finance, and State Property (BNM), 4) monitoring and coordinating the follow-up of audit results, 5) carrying out evaluation of supervision results, reviewing financial statements, 6) prepare audit reports and financial reviews and BMN, 7) prepare reports on the results of the implementation of SPI's programs and activities. <sup>7</sup>

Moeller (2007: 4) expressed the opinion that internal control can be seen as an integrated process of actions and activities carried out continuously by the leadership and all employees to provide adequate confidence in the achievement of organizational goals through effective and efficient activities. Overall the <sup>26</sup>ults of the application of the SPI are good or almost all elements of the related SPI (control environment, risk analysis, control activities, information and communication, and <sup>18</sup>ntoring activities) have been carried out effectively in supporting the implementation of the ISI Denpasar internal supervision system. The results of the <sup>38</sup>ulation of the questionnaire distributed to respondents can be seen from the following table:

**Table 3.** Results of Assessment of Internal Control System Elements

ICS	Score	Level application of ICS
Control environment	47%	Less effective
Risk assessment	33%	Less effective
Control activities	88%	Very effective
Information and communication	86%	Very effective
Monitoring	53%	Effective enough

Source: Data Processed, 2019

<sup>3</sup> Based on the results of the assessment of the elements of the internal control system <sup>7</sup>he researcher will analyze the findings with an analysis <sup>7</sup>f internal control that refers to the five elements of SPIP as follows:

### Control Environment

As seen in the SPIP perspective picture, that the element of the control environment is at the bottom, this gives the author's view that the element of the control environment is a foundation / foundation for sustaining the four other elements, so that the element of the control environment in this case has a very strong influence on the implementation. An effective SPI that is inherent throughout the activity.

The enforcement of this control environment is a form of soft control of the implementers of activities as stated by [15-20], that the control environment determines the rhythm of an organization, shapes the self-control awareness of its people and makes it the basis of all elements of internal control with enforcement of discipline and governance.

The control environment is a condition in an organization that influences the effectiveness of internal control, in which an effective internal control system has been built which is inherent throughout the activity, is influenced by human resources, and provides adequate confidence, not absolute confidence. In COSO, to support the establishment of a good internal control system, the control environment requires:

### 5.3 Enforcement of Integrity and Ethical Values

In Government Regulation number 60 of 2008 which becomes the first sub element of the control environment is the development of integrity and ethical values of the organization with the intention that all employees know the rules for good integrity and carry out their activities wholeheartedly based on ethical values that apply to all employees without with the exception. Integrity and ethical values need to be cultivated [21, 22], so that it will become a necessity and not a compulsion. Therefore, a good work culture in government agencies needs to be tied out continuously without stopping. Enforcement of integrity and ethical values is to translate integrity and ethical values into a code of ethics or rules of conduct and apply consistently in the daily activities of the SPI work unit and have rules of conduct and policies regarding ethical behavior standards that refer to the code of ethics of ISI Denpasar as an institution higher education which oversees the SPI work unit. To ensure compliance with the rules of conduct and maintain discipline of employees, the SPI leadership has made a sanction against deviations and violations committed.

On the other hand the shortcomings of the SPI that is not yet having a policy in granting compensation and promotion for performance produced by employees. This is because the SPI unit is not entirely the authority in appointing and dismissing employees so that the SPI cannot determine the career path of its employees.

However, this does not reduce the morale of the employees because the SPI has considered choosing employees to have a high level of professionalism so that people those who work at the ISU Denpasar SPI unit have high competence and professionalism.

### 5.4 Commitment to competence

Commitment is the willingness / awareness of someone to behave / behave towards the goals of the work unit and promised to take action responsibly to achieve the goals of the work unit. Commitment comes from the deepest heart of an individual to run a life or achieve goals. Competence is the ability and characteristics possessed by someone in the form of knowledge, expertise, and behavioral attitudes needed in the implementation of job duties (Spencer in Palan 2007: 84).

All employees must have and maintain a level of competence in order to carry out the tasks they carry, so as to understand the importance of developing and implementing good internal control. The knowledge and skills of each employee must be suitable for their job. The organization must also identify appropriate knowledge and skills needed for various jobs and conduct education, training and performance appraisal.

In the SPI work unit, the leader as the person in charge of the work unit has identified and determined the activities needed to complete the tasks and functions of each position in the ISU Denpasar SPI unit. To support the completion of the tasks, the SPI has compiled competency standards in occupying positions / positions in the SPI. In addition to maintaining and improving the competencies of employees, the SPI conducts training and mentoring activities so that employees' ability to complete tasks can be more effective and efficient.

### 5.5 Conducive leadership

Conducive leadership is one of the most important sub-elements in the SPI control environment. Conducive leadership is needed as an effort to influence the behavior of others so that they can follow their desires in order to achieve the goals of the work unit. Leadership is a process of influencing individual and / or group activities to create a work climate that allows the application of the elements of SPI.

In conducting activities in the SPI ISI Denpasar work unit, a conducive leadership pattern has been implemented, through the attitude of leaders who consider risks, apply performance-based management, protect assets and information, interact intensively with lower level employees, and be positive and responsive on reporting the results of activities.

## 5.6 Organizational structure

The organizational structure shows the organizational framework for planning, implementing, and monitoring in order to achieve organizational goals. A good organizational structure clearly shows the authority and responsibilities of each and has an appropriate relationship. With reference to efforts to create an effective and efficient organization, SPI ISI Denpasar has formed an organizational structure that has been adapted to the vision and mission of the SPI stated in the ISI Denpasar Rector's decision letter. Furthermore, the ISI Denpasar as the institution that oversees the SPI work unit has set the SPI management team as the person in charge and implementing the tasks in accordance with their respective competencies [23-28].

Based on this structure, each Coordinator in the SPI has the duty and responsibility of carrying out activities programs that have been made in the annual activity design in accordance with their respective fields. during the process of the activity then it is monitored by the leadership as the person in charge of SPI which is conducted in the form of a coordination meeting every week to find out what obstacles are faced in carrying out the activities and find solutions to these problems. at the end of the SPI ISI Denpasar report the results of the activities to be evaluated in order to improve the organization going forward.

## 5.7 HR Policy and Development

Human resources are subsystems in an organization created as an effort so that employees can be used efficiently and effectively in achieving organizational goals, including efforts to increase the ability, enthusiasm and enthusiasm for work and discipline in carrying out tasks that are their responsibility. With continuous and consistent management of human resources, it is expected that employee productivity will increase, so that organizational goals outlined in the main tasks and functions can be achieved effectively and efficiently.

In terms of human resources in SPI ISI Denpasar which consists of 6 members of SPI and administrative staff, the SPI has conducted a form of training aimed at increasing the competency of its employees. For the problem of employee career levels, especially expert staff, the SPI does not yet have a clear career development system because the party that determines a person in the position is the Rector of ISI Denpasar. At the end of the period, the SPI reports employee performance results to the Chancellor to be used as consideration in determining position positions in the next period.

## 5.8 Risk Assessment

Risk assessment is the activity of evaluating the likelihood of events that threaten the achievement of the

goals and objectives of the organization. Because the organization needs to conduct a risk assessment in order to prevent the possibility of events that threaten the achievement of the goals of the organization. For this reason, it is necessary to establish a risk management group whose task is to identify, analyze, and manage the relevant risks faced by the organization so that organizational goals can be achieved efficiently and effectively (Purjono, 2012). For example, the risk assessment of the development of a quality management system conducted by a tertiary institution on the possibility of problems faced that could hamper the process of developing the system include the risk of increasing implementation costs and also the risk of delays in the application of the system that has been previously applied by other institutions.

The use of the term risk assessment in PP 60 of 2008 is the same meaning as risk assessment. In accordance with PP 60 of 2008. In particular the third part, article 13, paragraph 1 stated that the leadership of the agency must carry out a risk assessment. Risk assessment as referred to in paragraph 1 consists of (a) risk identification; and (b) risk analysis. Furthermore, it is stated that risk assessment begins with establishing clear and consistent agency goals and objectives both at the agency level and at the activity level.

The risk assessment stage begins with establishing clear and consistent goals and objectives of the agency or work unit both at the agency level and at the activity level. then the agency or work unit identifies risks that can hinder the achievement of the objectives of the work unit, both sources of obstacles from within and from outside the agency. The risks that have been identified are analyzed to determine their effect on the achievement of objectives. The Chairperson formulates a risk management approach and risk control activities that are needed to minimize risks, risks cannot be eliminated but can be reduced by appropriate approaches.

In carrying out risk assessments, the ISU Denpasar SPI work unit does not yet have a risk identification methodology, only limited to the identification and resolution of problems carried out by the SPI leaders in coordination meetings held every week to review problems encountered that can disrupt the smooth running of activities and find solutions to resolve the problem is then the leader forms a team to follow up on the problem and at the end of the period an evaluation of the follow-up is carried out whether it has been implemented properly so that the next period the problem can be eliminated.

Based on the writer's observations in the field, it was found that there were some shortcomings of the ISU Denpasar SPI unit in terms of evaluating the results of risk management where the evaluation was not made in the form of reports so that the results of the follow-up of risk



management could not be used as a comparison on the basis of developing a better risk management strategy. at a later time.

### 5.9 Control Activities

Control activities are actions that are needed to overcome the risks that are likely to occur. In this activity the determination and implementation of policies and procedures are carried out to provide assurance that actions to overcome these risks have been carried out effectively and can reduce risks in achieving the goals of the organization. However, there are many procedures and ways that can be carried out so that control activities run effectively and can be applied to an organization such as the establishment of policies and procedures, authorization, division of duties and authority, and separation of functions. A good organization or work unit is an organization that can ensure that every activity has been supervised and controlled properly from fraud or risks that can occur.

In the SPI ISI Denpasar work unit has carried out a process of control activities, especially in terms of risk control. Based on the results of the study, the head of the SPI as the person in charge of the organization has made written policies and procedures that are used by subordinates as guidelines in carrying out the tasks. In addition, the leadership also conducts periodic evaluations of the implementation of all activities in SPI in particular identifying risks / obstacles that can hamper Internal Control activities at ISI Denpasar.

As for the activities of controlling activities other than in terms of risk control, SPI has also carried out several activities including, evaluation of organizational performance conducted at the end of the period by comparing the performance results with established performance benchmarks. In terms of human resources at SPI, the leadership has provided training or training to improve the competencies of the employees. With the increased competency of the employees, it is expected that the performance can support the achievement of the SPI ISI Denpasar vision and mission

For control activities related to information and communication facilities, the SPI has exercised control over the management of the information system including control over access and control over the separation of tasks for each field in the SPI and also for communication facilities, leaders and subordinates within the SPI have established intense communication both directly and through communication technology (SMS and Email).

### 5.10 Information and Communication

Information is data that has been processed that can be used for decision making in the context of carrying out the tasks and functions of the agency or organization.

Whereas communication is the process of delivering information using certain symbols or symbols both directly and indirectly to get feedback [29]

In COSO [12] it is explained the need to access information both inside and outside, develop potential strategies and integrated systems, and the need for quality data. The information concerned must be identified, illustrated and communicated in a form and timeframe that allows people to carry out their respective responsibilities.

Information and communication not only face data generated internally, but also external events, activities and conditions needed to provide information in the context of making business decisions and external reports. Effective communication must also occur in broader terms, pointing down, sideways and upwards of an organization. All personnel must receive a clear message from the leadership that the control of responsibility is taken seriously. Employees must also understand their role in the internal control system, as they understand that their individual activities relate to the work of others. They must have the intention to communicate significant information to their superiors. It also requires effective communication with external parties.

The head of the work unit in this case the head of the ISI Denpasar SPI has held quite effective communication which can be seen from the results of the questionnaire to the employees. Communication that occurs within the SPI has been equipped with communication patterns between parts both vertically and horizontally. The SPI work unit has provided and utilized various forms and means of communication to convey / disseminate information that is useful for all employees. Apart from the recording aspect, the management of information conducted by the SPI leadership is by compiling reports and submitting the results of organizational performance which is a form of leadership accountability to ISI Denpasar as the agency that oversees the SPI work unit.

### 5.11 Monitoring activities in supply chain management

Monitoring is a process that evaluates the quality of internal control performance at a time. Monitoring involves evaluating the design and operation of controls on a time basis and taking the necessary repairs. This monitoring aims to minimize deviations made by personnel in carrying out their work / responsibilities.

SPI ISI Denpasar as an internal control system implementer has a mechanism / procedure in conducting monitoring and evaluation made in the form of monitoring SOPs as a reference in carrying out evaluation of the SPI scope, where the SOP contains periodic evaluation plans, criteria / requirements used in monitoring, methodology, etc.



The scope and frequency of monitoring carried out by the SPI ISI Denpasar have included internal control, financial, agency assets, implementation of activities and monitoring of the achievement of the objectives and targets of the SPI, taking into account / considering the stage of activity being monitored. The results of the monitoring have been made in the form of a monitoring report document and then evaluated to follow up on the obstacles encountered in the monitoring activities before being accounted to the ISI Denpasar as the agency that oversees the SPI unit.

The constraints encountered related to the application of the elements of the SPI control environment are in terms of recruitment patterns where the SPI does not have clear policies and procedures from recruitment to termination of employees so that SPI cannot provide compensation for performance achievements and also a clear career path. This is because the party that has the authority to appoint and dismiss employees is the ISI Denpasar as an institution that houses the work unit of ISU Denpasar.

a. Risk Assessment. The risk assessment element of the ISU Denpasar SPI unit is classified as less effective in its application as seen from a score of 33%. The result is because SPI does not yet have a risk identification and analysis method in managing organizational activities. This is in accordance with the explanation given by the leadership that the SPI work unit has not applied the identification methodology and risk analysis, only limited to the methodology of resolution and follow-up problems in the form of coordination meetings held every Monday to obtain information about the constraints faced by each field and together look for solutions to solving those problems. Evaluation of risk management that is not made in the form of reports so that the results of the work of risk management cannot be used as a basis for comparing better risk management strategies in the future as well as the presence of recurring risks each period due to lack of communication with external parties.

b. Control activities. The control activity element in the ISU Denpasar SPI unit is included in the very effective category with a score of 88%. The author concludes that the application of the elements of control activities has been very effective on the grounds that: SPI ISI Denpasar in carrying out its duties already have the appropriate policy guidelines and procedures in the form of SOPs used as a reference in carrying out activities. At the end of the period the leader reviews the performance of the organization and is documented in the form of a report on the results of activities. Reports on the results of these activities will be evaluated for future organizational improvement. In terms of the human resources available at SPI, the leadership has conducted coaching or training to improve the competencies of the employees. With the

increased competency of the employees, it is expected that the performance can support the achievement of the SPI ISI Denpasar vision and mission. For information and communication facilities, the SPI has controlled the management of the information system including control over access and control over the separation of tasks for each field in the SPI and also for communication facilities, leaders and subordinates within the SPI have established intense communication both directly and through communication technology (SMS and Email). As for activities that have not been carried out by SPI which is part of the application of the elements of control activities, namely in terms of determining authorizations for important activities in the SPI unit where SPI considers that all program activities have the same level of importance and must be carried out in accordance with the specified time.

c. Information and Communication. Information and communication at the ISU Denpasar SPI unit is included in the very effective category as indicated by an assessment score of 86%. The author gives a very effective category of information and communication elements because: The head of the work unit in this case the head of the ISU Denpasar SPI has held intensive internal communication to all levels of staff to exchange information but for communication with external parties it is still lacking in seeing the statements of the respondents. Communication that occurs within the SPI has been equipped with integrated communication patterns between parts both vertically and horizontally. The SPI work unit has provided and utilized various forms and means of communication in conveying / disseminating information that is useful for all employees such as via SMS and Email. As a form of support for information and communication systems, the head of the ISU Denpasar SPI has been managing, developing, updating information systems continuously through several forms of activities including in terms of recording information that has procedures for compiling information properly and accurately. In addition, information management carried out by the SPI leadership is by compiling reports and submitting the results of organizational performance which is a form of leadership accountability to ISI Denpasar as the agency that oversees the SPI work unit. The lack of information and communication elements according to respondents obtained from information from the distribution of questionnaires that the SPI ISI Denpasar leaders have not made effective communication with external parties.

d. Internal Control Monitoring. The internal monitoring element at the ISU Denpasar SPI unit is included in the quite effective category with a score of 53%. This is because the internal control monitoring activities in the SPI unit have mechanisms / procedures for

monitoring and evaluating which are made in the form. SOP monitoring as a reference in the implementation of the SPI evaluation. The scope and frequency of monitoring carried out by the SPI ISI Denpasar has included internal control, financial, agency assets, implementation of activities and monitoring of the achievement of the objectives and targets of the SPI, taking into account / considering the stage of activity being monitored. The results of the monitoring have been made in the form of monitoring report documentation and then evaluated to follow up on the obstacles encountered in monitoring activities before being held accountable to ISI Denpasar as the agency that oversees the ISU Denpasar SPI unit. However, there are some things that need to be done related to the supervision / audit activities by ISI Denpasar on the SPI unit for the implementation of the activities that have been carried out that the SPI unit must establish a mechanism or procedure in following up on the audit results and reviewing the follow up to make recommendations for improvement of the organization. going forward

## 6. Conclusions, Limitation, and Suggestions

By looking back at the results of the investigative analysis on the ISU Denpasar ISU unit, from the results of interviews with the leadership, information was obtained that in the implementation of the activities at the SPI had applied SPI elements in it. This is reinforced by the presentation of the results of the questionnaire distributed to subordinates where the results indicate that the application of the internal control system within the scope of the SPI has been running quite effectively, this is explained in each element of the SCM, among others:

a. Control Environment. The control environment at the ISU Denpasar SPI unit is classified as less effective in its implementation as indicated a score of 47%. This is explained in the application of sub elements that exist in the element of the control environment, namely:

b. Enforcement of Integrity and Ethical Values in the implementation process, the SPI work unit has rules of conduct and policies regarding ethical behavior standards that refer to the code of ethics of the SPI ISI Denpasar as a higher education institution that houses the SPI work unit and also a sanction for employees who committing deviations or violations of applicable rules.

c. Commitment to the competencies possessed by all SPI employees in carrying out their duties and carrying out good internal control.

d. Conducive leadership that is implemented through the attitude of leaders who consider risks, implement performance-based management, protect assets and information, interact intensively with lower-level employees, and be positive and responsive to reporting the results of activities.

e. The organizational structure in SPI has referred to efforts to create effective and efficient organizations that have been adjusted to the vision and mission of the SPI stated in the decision letter of the ISI Denpasar Rector. The structure has been filled by staff in accordance with their respective competencies and is also equipped with work patterns that are integrated between parts vertically or horizontally.

f. Human resource policies and guidance that have been carried out by the SPI aimed at increasing the competency of its employees. But for the problem of the career path of employees, especially examiners, the SPI does not yet have a clear career development system because the party that determines a person in the position is the Rector of ISI Denpasar. At the end of the period, the SPI reports the performance results of the Rector's employees to be used as consideration in determining the position of office in the next period.

## Limitation

In conducting research on the effectiveness of the application of the internal control system at the ISU Denpasar SPI, researchers realized there were not a few limitations in this study, including the following:

a. Researchers only analyze from the administrative side only in the absence of SPI ISI Denpasar financial statements that can be used to conduct in-depth analysis on the accounting side.

b. In collecting supporting documents related to the application of SPI, the author can only analyze some documents that are confidential so that they are not attached to this study.

## Suggestion

Sustainability in the context of the supply chain presents challenges as well as opportunities for organizations and their supply chains. Some suggestions that the author can give, both to the ISU Denpasar ISU unit, as well as to further research, after going through observation activities, interviews, and questionnaires as well as analysis and discussion, related to deficiencies or constraints identified in the application of SPI elements are as following:

a. For the application of control environment elements, it is better for the SPI to communicate with ISI Denpasar related to the pattern of recruitment that SPI should be given the authority to recruit employees so that the placement of positions can be in accordance with the characteristics of employees needed by SPI, and also the SPI pays attention to career paths according to performance achievement resulting from .

b. For the application of risk assessment elements, the SPI should apply a methodology for identifying and analyzing risks in order to prevent risks that could hamper

the process of implementing activities. For example the risks that occur in filling the Self Evaluation, where the SPI should have identified the risk that there will be a study program that is constrained or does not understand how to fill in the Self Evaluation.

c. In the application of elements of control activities. The SPI still needs to establish authorizations for important activities that must be prioritized or completed first.

d. For the lack of aspects of the application of information elements, the authors suggest that leadership is more effective in communicating with external parties so that external problems are not repeated in the next period.

e. In terms of monitoring elements, it is better for the SPI to follow up on the results of audits conducted by ISI Denpasar need to create a mechanism or procedure in following up on the audit findings.

f. In terms of documentation, the SPI should pay more attention to the documentation of the results of the activities so that the activities that have been carried out can be accounted for and can also be used as an evaluation material for improving the performance of the SPI in the next period.

g. In accordance with the limitations of the writer who only analyzed from the administrative aspect, the next researcher should analyze on two sides, both administrative and accounting, so that it can be analyzed more deeply on the accounting side.

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