

Components of Strategic Information Management Implementation in Institutions

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Abstract

In several recent literatures, it reported that Strategic Information Management (SIM) might only happen within the institutions context of the existence of strategies plan. Many institutions may not realize that they have implemented this concept and adapt this to their daily routine in running their services and product. Through the advances of IT investment in the institutions, they can keep up with and better differentiate from their competitors. Investment in IT improved their productivity. The improvement of SIM plan is needed in beneficial since the IT requirements constantly change. This article is discussing three (3) different institutions which is medical institutions, banking institutions, and government agencies that catching up with the global trends in utilization of the information technology. This strategy is a phenomenon known as Strategic Information Management (SIM) to the researchers in the field of information management.

Keywords: Strategic Information Management, Medical Institutions, Banking Institutions, Government Agencies.

1. Introduction

Strategic planning is close to the development and building Strategic Information Management (SIM) process. Strategic planning reflects the vision, mission, and implementable objectives for measurable objectives where it critically assesses for information technology. Every institution, make use of information system in their organization in managing information. Improving SIM related to make changes for a better information system in institution in government and private sectors. The rapid changes of the technology need to compatible with the institution need and plans. Therefore, the SIM also will have amendment over time to measure the performance of the institution and also the system. The importance of assessment of the SIM is where it is comprehensive plan for the information technology. Effective strategic information management are able matched the institution goal and performance. On the other hand, in order to get effective strategic information management, the institutions itself must know their own strength and weaknesses of their own institutions for construct SIM process.

In every institution, information is hard to keep especially when it involves information system. Some professional institutions that involve time consuming such as medical sector, that really had a hard time to manage medical resources plus the lack of knowledge and least experience in implementing the medical software development of technical staff in medical sector make managing information become difficult. It differences with governments sector, they really have a hard time to relate the performance measurable with the information strategic. It is because performance measurable are relate with information system that involve strong strategic to smooth the flow of information management. At this moment,

strategic planning really makes an important role to every institution in order to make managing information in information system become smooth and strong.

There are some barriers in order to make IT investment to the organizations. It includes on the running cost, electricity insurance premium rises, and consumables such as toner, cartridge disks and paper [1]. Database software cost also influence the investment of it. Then it also related with database user group fees, hardware and software performance required to process types, data volumes of transactions, network architecture and associated hubs, routers and gateways. It indicates balancing development costs against maintenance costs.

Concept

Strategic planning in public organization allows leader setting a clear vision for organization's future and establish goals in improving and achieve shared vision [2]. The role of leaders is determining the establishment of SIM in their organization. Strategic Information Management (SIM) concerning about delivery of right information into right people, right time in making right decision with the support of technology to collect, process and distribute the information that being use for improving performance, product or services [3]. SIM is occurred when strategic planning involves strategic information (SI) and strategic information system (SIS) in organization (Figure 1.0).

SIM consists of two components which are Strategic Information (SI) and Strategic Information System (SIS). SIM is important feature in information technology (IT). Besides, SIM helps business and organizations managing information which creating and receiving information by classify, store, process and transfer the information. It also offers tools for helping companies apply metrics and analytical tools to their information repositories, which

allow them to identify opportunities for growth and ways to improve efficiency in operational.

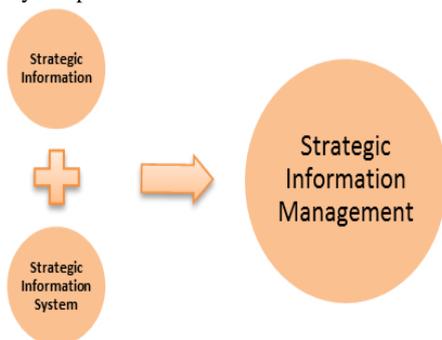


Fig. 1: Components of Strategic Information Management (SIM)

2. Purpose SIM Implementation in Institutions

SIM plan purposely to make improvement in information management in every institution [4]. Besides, the SIM plan also providing the accurate information in operation and development in order to guide the institutions in their growth and improve their own performance. SIM plan also describes the task of every difference working group, to organize and conduct the information management in institutions, and operate information technology within the institutions. So, it can be said that SIM Plan is a blue print for manage and also as a guide for institutions in organize the information management.

While strategic information system planning (SISP) is planned to ensure the technology, activities are properly aligned with the growing needs and strategies of the organization[5]. For example, SISP were important in developing information architecture in institutions. It is also responsible to design and build the system to be compatible with the institutions.

The development of SIM plan really gives advantages to the institutions itself. Figure 2.0 explain about the rise of information in organization and in order to facilitate the rise of this information, it is necessary through the use of an IT- enabled information system.

Information technology

The concept of competitive advantage from information technology is an appealing one. In a commonsense way, it appears glaringly evident that, if your association can get its hands on some important new innovation in front of its adversary, it must pick up an aggressive edge [6].

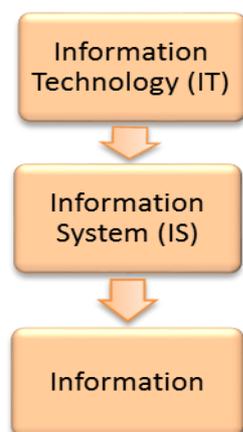


Fig. 2 :The nature of information technology, information systems and information

Information systems

They use IT for competitive advantage, they proud to trade their IT applications to contenders, in this manner picking up income from the deal while keeping up their competitive advantage by better utilization of the innovation through predominant item and administration offerings. Although short-term competitive advantage from IT is conceivable, in the more drawn out term the effect of IT is on industry structure as opposed to the focused position of a specific organization inside the industry.

SIM as a Strategic Initiative in Some Critical Sectors

Of all the discussions of SIM, this article will only focus and compare on three (3) institutions which is:

- Medical institution due to the reason of medical institutions is one of the busiest information professions. Their resources are hard to handle plus the information must be organize in the proper ways in order to easy retrieve⁴.
- Banking organization because bank is one of the organizations that effectively in implementing and practicing strategic information management (SIM). With the emergence of SIM, organization would generally be able to successfully compete in the competitive environment [7].
- Government agencies because the government focusing in improving the services and reduce cost of the governance. The efficiency and effectiveness in giving good services to the public has pushed the government in finding solutions to handle it. The government need use SIM to improve the quality or performance management and also the management of the resources².

SIM in Medical Institutions

With the lack of information in developing the system for medical institutions, it makes the process of managing theses information difficult to handle. According Yang, Ku, Yen, and Hsieh, (2016) stated that normally the organization will hired outsourcing company to handle or manage information system in medical institutions because of the gap of knowledge of medical staff in developing the information system⁴. Although several problems that occur such as miscommunication of the business process and terms between technical staff in medical institutions and staff of outsourcing company, the SIM plan must be propose in order not to prolong the issue and to focus on managing the information system also to give better service to the patients.

Component of SIM plan

With the help from strategic information system, SIM plan plays vital role to give benefits to organization in order to manage the organization resources. As been mentions before, SIM plan is one of the features to information system to plan the strategic to manage or to design the information system in order to suit with the organization. According to research done by Yang, Ku, Yen, and Hsieh, (2016) there are eight (8) components in implementing the SIM plan in organizations⁴. The components must be follow in order to get better result of organization. All components have their own role in order to make this SIM plan effective thus will make change in medical institutions. The components are:

- Summary
Every plan must have the summary of the strategic plan. It same goes to this SIM plan. In order to persuade the stakeholder to support SIM plan, they must give brief structure to explain about how important to have SIM plan in organization.
- Introductions
This is to explain the content of the SIM plan, plus to address encountered problem of current situation. In this introduction component, it must find solutions to organize implementations methods and steps of SIM plan.
- Hospital management
Their responsible to support stakeholders to understands vision, mission, goal, hospital characteristics and organizational structure for improving hospital administration.

- d) **Information management**
Allocate knowledge resources and assign responsible corresponding. Besides, the information management components must align the goal and principle of the hospital with this system.
- e) **Current state**
It must provide information survey in order to evaluate the current existing system. All the solution for software architecture must be examined.
- f) **Assessment**
Responsible to find the fragility of the system and decide the next actions that must be taken and conduct application portfolio management.
- g) **Target state**
Proposed the detailed software architecture to address encountered problem and should focus on the enterprise architecture planning. Moreover, this component also must provide the relationship and communication mechanism between software and related knowledge sources.
- h) **Migration plan.**
This component is very important because it responsible to find the solutions in order to achieve the changes from current state to target state.

SIM in Banking Institutions

According to Norhayati Hussin, Ahmad Soufiean Othman and Adnan Jamaludin, (2015) stated that SIM normally can be clearly seen through its products and services⁷. For instance, in the banking and financial institutions, the SIM products are like the Automatic Teller Machines, Telebanking, Internet Banking, Home Banking and other products and services that are driven by information resources are being developed to assist banking and financial institutions in their competitive strategies. They also mentioned that among the SIM determinants that have existed in the bank are the government support, industry pressure, information system investment, information technology and business strategy, information infrastructure and demand from competitive market. Besides, Top management support and IT personnel are the important determinants of SIM itself.

- a) **Government support**
In globalization today, government more likes to move towards Knowledge economic. So with the support from government that provide initiative such as developments of multimedia super corridor (MSC), Multimedia Development Corporation (MDC) and Malaysian Central Bank (Bank Negara Malaysia) and all this initiative is connect with the improvement of SIM in this institutions.
- b) **Industry pressure**
A demand from industry research demonstrates that external demands frequently get from contenders, rivals, customers and trading partners. It is the impact on the firm from the hierarchical condition through competitive demands and burden by exchanging accomplices. The vital usage of IS has competent to decrease aggressive demands from the industry and market place, along these lines, external demands has turned into a noteworthy compel driving the association to receive and use different kind of IS such e-business.
- c) **Demand from competitive market**
Clients today are presented to such a great deal less sophisticated telecommunications applications, in this way, the client is extremely intrigued and fascinate if the bank can give and provide banking facilities or on-line which can encourage the management of their funds. Whereby, in more aggressive market associations noticeably inspired and interested by new techniques and methods to take care of client demand and to gain market share.
- d) **Information technology and business strategy**
The critical and important of IT system and the matter of the banks in which comprehension of IT and business methodology simultaneously depict a situation where successful correspondence amongst business and IT is set up to help and support the strategic

usage of IT. IT strategy and the business plan must simultaneously align together to achieve competitive advantage.

- e) **Information infrastructure**
IT infrastructure outsourcing are a part of component to improve the efficiency. It's including to reduce a major disaster, reduce its recovery time, secure data center and recovery Site. This is important factors to facilitate organization with a better SIM implementation.
- f) **Information system investment**
The organization needs to utilize IS to coordinate to their business operations and change their plan of action, it would require essentially greater investment in IS. Organization need to invest in IS to stay aware of and better separate from their rivals. Investment on information system (IS) is altogether identified with the key usage of information systems.
- g) **Top management support and IT personnel**
The moderating factors are top management support and IT personnel. Without this factors, will not be successfully achieved to provide SIM improvement in association. Top management is conceptualizing as the contribution of the official or best level management of the association in IT/IS tasks. The vital part of top management bolstering is their immediate contribution to bring the effective usage of IS infrastructure, IS structure, business strategy or IS designs created by association. Accomplishment of information systems usage does not just rely upon the nature of equipment and programming. It additionally relies upon capacity of individuals to utilize the information systems. Managers need to make judgments and decisions when selecting software and hardware. They need to ensure that hardware and software is selected based on the range of functionality and applications required by organization [8]. For that, they should have knowledge and skill to choose proper programming and equipment.

Acknowledging it or not, banks that have effectively apply SIM would have set these determinants encompassing their everyday running of their business. Some banks are effectively and progressed in their effort to the advantage from information technology and internet infrastructure.

SIM in Governments Agencies

The risk in changing and setting of services which need to meet the citizen or customer standards which require major area for improvement cannot be achieved without the successful strategic information management because in the government the strategic management focusing on the performance measurement. The communities have analysis which advocates strong connection in using SIM practices in management and performance outcomes which with the consistency and effective use³.

Providing good quality of services to the public

The advent of technology with the public were educated in using technology, the citizens also want their government to change according to the trends in providing online services or other services that related with the technology. Different with the other sector such as profit based sector, they give attention on Strategic Information Management in gaining competitive advantages. SISP is one of strategic plan for information technology. There are four aspect SISP focus in organization which agree by practitioner, consultant and scholar. The aspect is coordinating IT plan with organization business plan, planning IT architecture where the users, application, databases as well as networks integrated together, providing information system development and operational resources and planning application information in order complete project with specific budget and time [9]. The government use the SISP in designing strategy for digital government such as e-commerce which e-government in improving the efficiency and effectiveness of the availability and the usability of the system and the responsiveness of citizen. The comparison between SIM and SISP which are SISP strategy focusing on system while the SIM is a broad strategy which man-

age information not only focusing on ICT but also other areas. Therefore, SISP can be address as the sub strategy under the SIM. The SISP were responsible for setting context for moving to digital government which transforming of public services. The success of SISP depends on the maturity of Information Technology or Information System [10]. The investment of Information Technology essential alongside the skill and planning to make the investment of technology pay off. The good planning and management where the relationship between good ICT and business with facilitate communication will develop trust and engage knowledge sharing behavior among SISP member for better process.

Assessment of strategic planning

Manoharan, Melitski and Bromberg (2014) stated that the assessment of the strategic planning in the public sector which not specifically in information system but as a whole by using SWOT analysis for future improvement and investment in many areas include information technology because of the urge calling for government for being transparent where the citizens one of biggest group who get benefits from the initiatives². The strategic plan also covers information technologies which are e-government.

However, the assessment involved by using survey, there are lack of survey about the content of strategic plan in e-government performances which resulting inadequate information which is hard to formulate strategies for the information system. They also added that, when the assessment using SWOT analysis reveals that state in USA shows that they able to identify the strength and weaknesses, but when identifying weakness and threats they hesitate to share their findings, afraid they will be asked to take accountability of these matter by the citizen. The assessment of strategic planning which continuously measuring performance were actively needed in the engagement from the policy maker such as top management in government and the citizen as participant.

Beneficial to Organizations

Reason that most organizations focus for having a strategic management process is responsibility Board of Directors to provide a discipline that enables them take a look back on the day to day operation in business which able them thinking about the future of the organization [11].

Without the discipline the organization can become too focusing with working through the next issue or problem with fail picturing the larger picture. Strategy provides a vision of the future, confirms the purpose and values of an organization, sets objectives, clarifies threats and opportunities, determines methods to leverage strengths, and mitigate weaknesses at a minimum. Participation of board and staff in the strategic discussion allowing them better understand the direction, its reason was chosen, and the related benefits.

Not all people just knowing is enough but require them to understand to obtain their support. A strategic management process forces an organization to set objectives and measures of success. Strong associated SIM will improve organization performance which gains competitive advantage to compete besides improvement for better and quality products and services which facilitated collaborative efficiency and effectiveness.

3. Discussion

From the literature, there are no definite SIM definition which determine the clear meaning of Strategic Information Management. However, the SIM concept is able to present with help of the literature which cover about strategic planning. SIM be applying in different areas and institution where the implement of the SIM help institution manages and organize their information resources and makes it as an important practice. The SIM practice can be seen in different institution such as bank, government and medical sector. The elements of SIM were used in different method but with the same approach by this institution.

The SIM practice can be largely seemed in focusing Information Technology (IT) in managing their digital data in the institution. The investment on IT in institution can be an asset to them with future development in institution. The same benefit gain from the SIM implementation is competitive advantage where managing the resources such as customer profiling, citizen information services and customer database. The SIM help institution providing product and services. The medical sector use SIM in managing records and also integrate their system in improving the information infrastructure. Before implementing the SIM plan, in medical sector the use of system is very difficult to adapt because of miscommunication between medical staff and technical staff. At this stage, the SIM plan must be conveyed the stakeholder to develop the SIM plan in order to improve the organization information system. The development to the SIM in bank sector was focusing providing services and product to customer.

Many initiatives derive from government to encourage institution implementing SIM to improve the service and product to reach knowledge economy based. One of the concerns about government strategic planning being made for improving services to the citizen with effective and efficient service is budgeting. The assessment of the strategic planning were relate to the performance from the result of planning. The assessment also relates with SWOT analysis to determine the weakness and strength of the institution and external factor which are opportunities and threats. The difficulty in assessment to acknowledge the weakness and threat by the institution where the institution afraid in getting criticism from people where in private institution they generate profit based on their customer, while in government sector to be transparent enough to the public where they can be accountability and taking into responsibility to the analysis. The implement of SIM also need the evaluation and assessment to ensure the planning being achieved the goal of institution.

4. Conclusion

Strategic planning assessments have been approached in the institution in order to develop the strategic information management (SIM). Implementing and evaluating strategy are essential components to the strategic planning process. The assessments are vital due to the industry pressure and customer needs.

Due to develop the SIM, the determinants that have been identified by several researches from the series of interviews and document analysis can be used in order to implement and apply SIM to reach the successful and competitive advantage. Top management and IT personnel are also important as the main determinants on beneficial to practice SIM. Organizations must develop the improvement of SIM plan since it requirement constantly rapidly change. The advancement of it gives the huge opportunities to the organizations to lead the successful among their competitors. The standardized of SIM in all organizations are vital in beneficial to gain the organizations successful.

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