



UNIVERSITI PUTRA MALAYSIA

**STRATEGIC INFORMATION SYSTEMS PLANNING:
A CASE OF BANK RAKYAT**

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**STRATEGIC INFORMATION SYSTEMS PLANNING : A CASE OF BANK
RAKYAT**

By

AZMAN BIN ADNAN

**Thesis Submitted in Fulfilment of the Requirements for the
Degree of Master of Science in the Faculty of
Computer Science and Information Technology**

**Universiti Putra Malaysia
November 2000**



Dedicated to my wife, Laili Norihan whom I graduated with at this university 15 years ago, and my children, Muhammad Syukri, Muhammad Fiqri and Sarah Hazraty

.....*"I Believe I Can Fly"*.....



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment
of the requirements for the degree of Master of Science

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Chairman : Associate Professor Hj. Mohd. Hasan Selamat

Faculty : Computer Science and Information Technology

The impact of computerisation comes in many different ways, with organisations having various perception towards the technology. Some perceive it as keeping up with the trend and thus the subject matter becomes less cost effective or may even be a costly project to pursue. Organisation such as these are merely replacing their traditional typewriters with personal computers thus under utilising the strength of computers.

Productivity, on the other hand equals to output over the input and based on this equation, one may easily conclude that in order to increase productivity, either the output is increased or the input reduced. It is concluded in this study that by further exploiting the Information Technology (IT) potentials and constructing a Strategic Information Systems Planning (SISP) model, it would help an organisation to optimise its information resources thus achieving its goals i.e., to create efficiency



and reduce input resources which will therefore increase productivity and profitability.

However, the expectation of an organisation towards IT to achieve its goals may lead to two different paths i.e., success or failure in the implementation. It is not uncommon to hear of failures in the implementation of IT projects and in such cases, costs incurred has been considered a waste that discourages the organisation to proceed further in the implementation of IT projects and it is not impossible for these organisations to revert to their traditional methods of operations.

Therefore, before the IT potentials could further be exploited, the problem of IT illiteracy also being a distracting factor to the implementation of computerisation, should initially be eliminated or greatly reduced. This especially refers to the higher level management for better understanding of the benefits that could be achieved.

This research proves that the implementation of IT projects could yield better results with the consideration that the basic issues are not neglected and attended to in a much suitable approach. Suitability of the approach refers to the tools of automation introduced, to obtain better results that may lead to a higher percentage of success in the implementation and thus leads to the achievement of the organisation's goals. At the end of this research, a model is constructed which may be used by other organisations with similar nature of situation and issues.

Abstrak tesis dikemukakan kepada Senat Universiti Putra Malaysia di dalam memenuhi kelayakan ijazah Sarjana Sains

**PERANCANGAN SISTEM MAKLUMAT STRATEGIK : SUATU KES DI
BANK RAKYAT**

Oleh

AZMAN BIN ADNAN

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Pengkomputeran memberi kesan yang berbeza diantara organisasi yang juga mempunyai tahap penerimaan yang berbeza terhadap teknologi. Ada yang melaksanakannya untuk mengikuti aliran zaman dan akibatnya adalah kurang berkesan terhadap kos yang telah dilaburkan dan mungkin merupakan suatu projek yang mahal untuk diterajui. Organisasi seperti ini hanya sekadar menggantikan fungsi mesin taip dengan komputer dan dengan itu, keupayaan komputer tidak dicapai sepenuhnya.

Di sebalik itu, productiviti pula adalah bersamaan dengan output dibahagikan dengan input. Berdasarkan persamaan ini, boleh disimpulkan bahawa untuk meningkatkan produktiviti, samada output harus dipertingkatkan atau input dikurangkan. Dalam penyelidikan ini, rumusan telah buat bahawa dengan meningkatkan penggunaan sumber Teknologi Maklumat serta merangkakan sesuatu model Perancangan Sistem Maklumat Strategik akan dapat membantu sesebuah organisasi mengoptimalkan

sumber-sumber maklumat untuk mencapai matlamat bagi meningkatkan kecekapan serta mengurangkan sumber-sumber input dan hasilnya adalah peningkatan productiviti dan keuntungan.

Walau bagaimanapun, harapan sesebuah organisasi terhadap teknologi maklumat untuk mencapai matlamat berkemungkinan menuju ke salah satu daripada dua arah samada kejayaan atau kegagalan dalam perlaksanaannya. Kegagalan yang dihadapi dalam pelaksanaan projek Teknologi Maklumat adalah merupakan suatu perkara yang biasa didengari. Dalam hal tersebut, kos yang telah dibelanjakan dianggap suatu pembaziran dan tidak mustahil bagi organisasi berkenaan menghentikan usaha di dalam pelaksanaan projek berkenaan dan berbalik kepada cara kerja yang lama.

Oleh itu, sebelum sumber-sumber Teknologi Maklumat ini dapat dieksploitasikan, masalah buta komputer perlu diatasi atau dikurangkan terlebih dahulu, khususnya kepada pihak pengurusan atasan supaya mereka dapat memahami kebaikan-kebaikan yang bakal diperolehi daripada usaha tersebut. Penyelidikan ini membuktikan bahawa pelaksanaan projek Teknologi Maklumat memberikan hasil yang lebih baik sekiranya perkara asas ini dapat diatasi terlebih dahulu serta dikendalikan dengan kaedah yang bersesuaian. Kesesuaian kaedah disini merujuk kepada peralatan automasi yang diperkenalkan, untuk memperolehi hasil yang lebih baik serta tahap kejayaan dalam pelaksanaan yang lebih tinggi dan akhirnya mencapai matlamat organisasi. Pada penghujung penyelidikan ini, suatu model diperkenalkan dan ianya boleh digunakan oleh organisasi lain yang menghadapi situasi dan isu yang sama.

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I would like to express my gratitude to those who had given me the support and helped in gathering the facts either directly or indirectly. My appreciation to my staffs who had worked very hard in making this dream come true and had benefited the bank substantially as well. Not forgetting, my utmost gratitude to Dr. Mokhtar Mohd. Yusof, Assoc. Professor Hj. Mohd. Hasan Selamat and Mr. Rusli Abdullah who had sacrificed their time in giving me the guidance and support.



I certify that an Examination Committee met on 3rd. November 2000 to conduct the final examination of Azman Bin Adnan on his Master of Science thesis entitled “Strategic Information Systems Planning : A Case Of Bank Rakyat” in accordance with Universiti Putra Malaysia (Higher Degree) Act 1980 and Universiti Putra Malaysia (Higher Degree) Regulation 1981. The Committee recommends that the candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

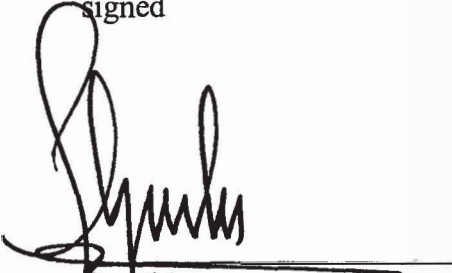
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CHAPTER 1

INTRODUCTION

1.1 Background

There has been fairly high expectation amongst organisations towards information technology (IT) when it comes to creating efficiency, effectiveness for an improved productivity and profitability. IT related projects which are budgeted for, proves the awareness towards the importance of IT to achieve certain objectives that these organisations look forward to. On the other hand, one may ask how effective are these IT projects in the goal achievement or is it worth the return on investment (ROI)? Do these IT projects actually benefit the organisation in any way or are they merely an expensive implementation to pursue just to keep up with the trend? When this happens, based on the researcher's experience, the result is coexistence of both the traditional methods i.e. the manual operations and the partially implemented IT project due to lack of confidence in the latter.

Therefore, the road to success or goal achievement for an organisation requires a kind of checklist to ascertain that no stones are left unturned in the search of the correct method of implementing IT projects to make sure that it is worth the effort. There are various factors which are deemed critical to be considered for an organisation to succeed in their goal achievement and the solution could even be within the available

resources in the organisation itself that has been left unnoticed or under-utilised. With the critical success factors (CSFs) identified and through maximum utilisation of the IT potentials, the departments in the organisation may be aligned to a mutual understanding with a common goal. This will be elaborated in the case study of this research.

On the other hand, it is not uncommon to hear of failures in the implementation of IT projects. In such cases, costs incurred has been considered a waste that discourages the organisation to proceed further in the implementation of IT projects and it is not impossible for these organisations to revert to their traditional methods of operations.

1.2 Objective of The Research

The objective of this research is to make use of the available IT resources in the organisation thus maximising the usage of the IT potentials and to identify the critical success factors. Tools will be developed as a solution to overcome the distracting factor(s) whilst expecting an improved situation for further implementation of IT projects and to achieve a suitable SISP model that may be used by organisations with similar nature of situation. This includes evaluating the effectiveness of the approach provided initially to overcome the distracting factor(s) before exploitation of the IT potentials can proceed further.

1.3 Research Questions

Based on the researcher's experience for the past 15 years in the environment where computerisation projects are concerned, the approach towards implementing them can be further improved to obtain better results that may lead to a higher percentage of success in the implementation and thus leads to the achievement of the organisation's goals. This research therefore, explores the following issues;

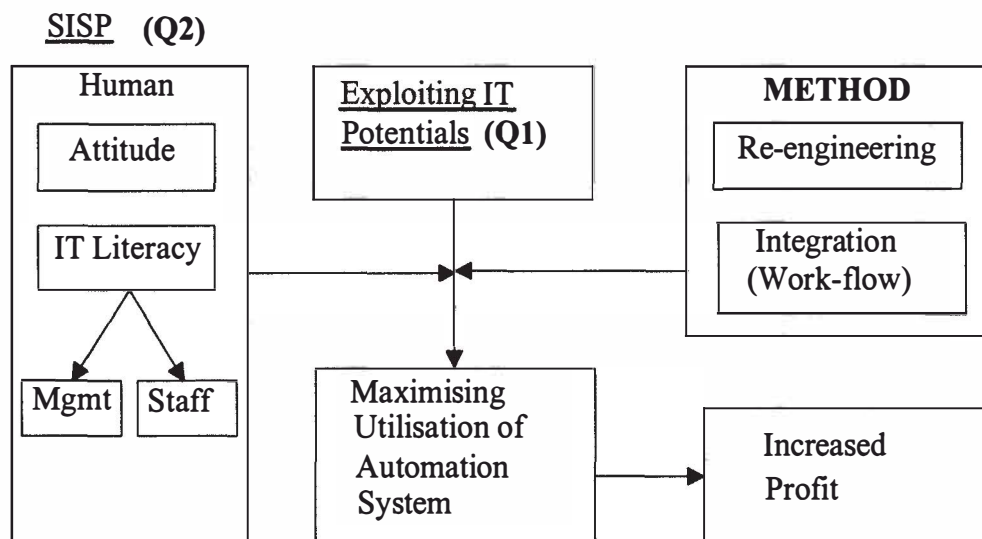
- The perception of the audience towards automation or technology.
- Selection of a suitable system to be implemented that meets the requirement and thus beneficial to the organisation.
- Maximum utilisation of the system prior to implementation.

Therefore, the following research questions are explored with the expectation for an improved situation and a model as shown in Figure 1.0 is constructed.

- ✓ **Q1** - Can an organisation improve its situation by exploiting the Information Technology potentials?
- ✓ **Q2** - Can Strategic Information Systems Planning (SISP) help an organisation to optimise its information resources?

Question 1 refers to the observation of work practice in the case study of the research and venturing into the possibilities of improving the situation. Evaluation will be made in the results obtained to detect changes in performance indicators such as efficiency, effectiveness and productivity. Question 2 refers to the approach of the research itself i.e., the strategic planning and the results expected towards optimising the information resources. However, before these questions are able to be explored, the researcher needs to attend to the basic needs for a higher success rate in the implementation i.e., the perception of the audience in the organisation towards technology.

Figure 1.0 : Model of The Research Questions Explored



The research mainly focuses on the approach to maximise the utilisation of IT potentials for the organisation to meet its objectives and goals. However, the questions raised before a successful implementation could take place would be as follows:-

- Since the perception of the audience towards technology is equally as important, what would be the approach that should be taken to resolve the issue? Would it be merely by creating interest among the audience, or should it be implemented by force in the form of directives by the higher level?
- How would the higher level management be convinced on the importance and performance of technology to achieve the organisation's goals and objectives then?

1.3.1 Importance of The Research.

Based on the issues raised in this chapter, there is indication that a research needs to be conducted since the results will be able to prove that a higher success rate in the exploitation of IT potentials in organisations may be achieved if a suitable approach is taken into consideration. The researcher takes heed of this due to his experience which indicates that;

- Human and social factors are equally as important as the implementation of the computerisation project itself.
- The commitment in utilising the IT potentials should commence from the utmost level or the senior management level.
- Perception of the audience towards technology determines the success rate of the implementation thus resulting in the achievement of the objectives.

The approach taken in this study may be summarised into the major steps as follows:-

- ✓ Providing a solution to overcome the distracting factor i.e., specifically the perception of the audience towards technology.
- ✓ Maximising the utilisation of available resources i.e., the IT potentials.
- ✓ Developing tools that would benefit the organisation as follows:-
 - Increase efficiency in the work-flow.
 - Increase effectiveness of the outcome of an implementation.
 - Create a cost saving environment.

- Create a standard to align various Divisions or Departments towards a common goal achievement.
 - Increase the productivity of each individual personnel.
-
- ✓ Identification of the critical success factors.

 - ✓ Constructing a model that may be used by other organisations of similar issue.

Having these steps taken, an analysis is done on the results obtained to determine the achievement of this study which in turn will benefit the organisation. Information system (IS) is a rapidly changing field making it difficult to predict how it would be used in the future. Strategic Information Systems Planning (SISP) on the other hand, helps to implement and uses information systems such that it optimises the effectiveness of the organisation's information resources and uses them to support the organisation's objectives. It is a method adopted by an organisation to outperform its competitors by finding a better fit between its strengths and customer requirements.

1.4 Research Perspective

The underlying fact about this research is to prove that the implementation of IT projects could yield better results with the consideration that the basic issues are not neglected and attended to in a much suitable approach. Any indication of

improvement in the effort to resolve this issue will initiate for further steps to be taken.

1.4.1 Bank Rakyat.

The organisation selected in this study i.e., Bank Kerjasama Rakyat Malaysia Berhad or better known as Bank Rakyat is the largest co-operative bank in the country with a total asset of RM 8.0 billion. Currently, there are 84 branches operating nation-wide which includes 11 branches in East Malaysia. Being a co-operative bank with the nature of business half similar to other financial institution in the banking industry, Bank Rakyat must compete effectively to outperform its rivals. To accomplish this, Bank Rakyat must find suitable ways of creating and adding value for its customers. It must deploy and utilise its resources to create, implement and change strategies.

In 1983, Bank Rakyat concentrated on creating new products to offer to its customers, mainly the loans, which makes up the profit of the Bank. Competitive strategy was put into place since other banks and financial institutions were marketing the same products and offering them to the same set of customers. Therefore, the Bank needs speedy reaction to these competitive opportunities and threats. Manpower limitations to maintain the increasing number of loan ledgers left the Bank no choice than to allocate some amount of budget to automate the branch operations. The ease in work load due to automation of the branch operations enables the branch personnel to plan and implement their marketing strategies. This can

obviously be seen from the increase in profit from 1991 to 1994 which was when the computerisation era for the banking operations in Bank Rakyat was just beginning after a two-year conversion period at all its branches nation-wide (Appendix 1.0).

Based on this fact and the period of declination of profit from 1994 to 1998 indicates that the computerisation project should be extended to the back-office task as well.

This refers to the office automation, to increase efficiency, productivity and thus leading to an expected increase in profitability.

1.4.2 The Researcher's Background.

The researcher has been with the Bank since April, 1986 and was attached to the branch operations for almost 4 years. He was involved in the process of conversion from the manual operations in the early days of computerisation and due to his interest in the computerisation project, he was transferred to the EDP Department to lead the Loans system project team at the end of 1989.

Besides the experience of being the end-user during his branch operations days i.e., Assistant Manager, Credit Officer (credit evaluation) and Recovery Officer (loan accounting), he also had the experience of going through systems migration on 4 occasions and has headed 5 departments since 1994 in the Information Technology Division i.e., the Quality Assurance Department, the Implementation and Training Department, the Systems Development Department, the Head-office Applications Department and currently the Office Automation Department in the Multimedia and