USE ACCEPTANCE ON ANNUAL BUDGETS PLAN SYSTEM OF DEPARTMENT OF INDUSTRIAL PROMOTION

PHAKAMART RUTTANACHON

A THEMATIC PAPER SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE (TECHNOLOGY OF INFORMATION SYSTEM MANAGEMENT) FACULTY OF GRADUATE STUDIES MAHIDOL UNIVERSITY 2014

Thematic Paper
entitled

USE ACCEPTANCE ON ANNUAL BUDGETS PLAN SYSTEM OF DEPARTMENT OF INDUSTRIAL PROMOTION

Phakamart Ruttanachon
.....
Miss Phakamart Ruttanachon
Candidate

.....
Lect. Sotarat Thammaboosadee,
Ph.D. (Information Technology)
Major advisor

Chanattha Thongsuk
.....
Lect. Chanattha Thongsuk,
Ph.D. (Information Technology)
Co-advisor

B. Mahai
.....
Prof. Banchong Mahaisavariya,
M.D., Dip Thai Board of
Orthopedics Dean
Faculty of Graduate Studies
Mahidol University

.....
Asst. Prof. Supaporn Kiattisin,
Ph.D. (Electrical and Computer
Engineering)
Program Director
Master of Science Program in
Technology of Information System
Management
Faculty of Engineering,
Mahidol University

Thematic Paper
entitled

USE ACCEPTANCE ON ANNUAL BUDGETS PLAN SYSTEM OF DEPARTMENT OF INDUSTRIAL PROMOTION

was submitted to the Faculty of Graduate Studies, Mahidol University
for the degree of Master of Science
(Technology of Information System Management)
on
April 9, 2014

Phakamart Ruttanachon
Miss Phakamart Ruttanachon
Candidate

Adisorn Leelasantitham
Asst. Prof. Adisorn Leelasantitham,
Ph.D. (Electrical Engineering)
Chair

Lect. Sotarat Thammaboosadee,
Ph.D. (Information Technology)
Member

Chanattha Thongsuk
Lect. Chanattha Thongsuk,
Ph.D. (Information Technology)
Member

Kairoek Choeychuen.
Lect. Kairoek Choeychuen,
Ph.D. (Electrical and Computer Engineering)
Member

B. Mahaisavariya
Prof. Banchong Mahaisavariya,
M.D., Dip Thai Board of Orthopedics
Dean
Faculty of Graduate Studies
Mahidol University

Lect. Worawit Israngkul,
M.S. (Technical Management)
Dean
Faculty of Engineering,
Mahidol University

ACKNOWLEDGEMENTS

The researcher would like to thank you Lect. Sotarat Thammaboosadee and Lect. Chanattha Thongsuk for kindly suggesting the ways of research, improving and adjusting all defects, giving consultancy and beneficial opinions, as well as moral supports, therefore, the research has been successful well.

I would like to thank you Asst. Prof. Adisorn Leelasantitham, the President of thesis examination committee and Lect. Kairoek Choeychuen, thesis examination committee who kindly gave suggestions, beneficial opinions to make this research more complete, and thank you all lecturers who gave me for all knowledge.

Moreover, I would like to thank you my brothers and sisters, as well as all colleagues in the Department of Industry Promotion both central and provincial part for the support to respond the questionnaires and give suggestions. The suggestions received by the researcher could help the research achieve the goals in accordance with the set purposes.

Finally, I would like to thank you all my friends who have always given me suggestions and shared their experiences, as well as moral supports to do this research until it is really successful.

Phakamart Ruttanachon

USE ACCEPTANCE ON ANNUAL BUDGETS PLAN SYSTEM OF DEPARTMENT OF INDUSTRIAL PROMOTION

PHAKAMART RUTTANACHON 5536265 EGTI/M

M.Sc. (TECHNOLOGY OF INFORMATION SYSTEM MANAGEMENT)

THEMATIC PAPER ADVISORY COMMITTEE: SOTARAT THAMMABOOSADEE, Ph.D., CHANATTHA THONGSUK, Ph.D.

ABSTRACT

This research was on the acceptance of information technology during the annual budget plan of the Department of Industrial Promotion. It aimed to study the acceptance level, factors relating to and influencing, and problems and obstructions towards information technology. Technology Acceptance Model 2 (TAM2) was created to describe the relationship and influence towards either acceptance or rejection.

The population included 40 people including civil servants, government employees, and service contract employees. A questionnaire was used for this research as the instrument for data collection. The data were analyzed to find the percentages, frequencies, descriptive statistics, and SEM.

The analysis results revealed that the acceptance of news and information of the system users had good acceptance with good reasons. The results about the acceptance of system users on the budget plan identified that convenience and ease of use were more of an influence than considering the benefits. The acceptance was considered as part of the drive to cause positive results, such as the support of system use, ease and convenience of use. According to the analysis by using TAM2, it was found that the results supported the major model and considered it as support of system use, which helped increase the effectiveness of the organization operation to achieve the set goals and purposes.

KEY WORDS: BUDGET PLAN / TECHNOLOGY ACCEPTANCE MODEL (TAM)

109 pages

การยอมรับการใช้งานระบบแผนงบประมาณประจำปีของกรมส่งเสริมอุตสาหกรรม
USE ACCEPTANCE ON ANNUAL BUDGETS PLAN SYSTEM OF DEPARTMENT OF INDUSTRIAL PROMOTION

ผกามาศ รัตนชล 5536265 EGTI/M

วท.ม. (เทคโนโลยีการจัดการระบบสารสนเทศ)

คณะกรรมการที่ปรึกษาสารนิพนธ์: โยฑศ์รัตต ธรรมบุษดี, Ph.D., ชนัฏฐา ทองสุข, Ph.D.

บทคัดย่อ

การศึกษาเรื่อง การยอมรับการใช้งานระบบแผนงบประมาณประจำปีของกรมส่งเสริมอุตสาหกรรม มีวัตถุประสงค์เพื่อศึกษาระดับการยอมรับ ปัจจัยที่มีความสัมพันธ์และมีอิทธิพลต่อการยอมรับ ปัญหาและอุปสรรคต่อการยอมรับเทคโนโลยีสารสนเทศ โดยการประยุกต์ใช้แบบจำลอง TAM 2 อธิบายความสัมพันธ์และอิทธิพลต่อการยอมรับ

กลุ่มตัวอย่างวิจัย คือ ข้าราชการ พนักงานราชการและจ้างเหมาบริการ จำนวน 40 คน ซึ่งใช้แบบสอบถามเป็นเครื่องมือในการเก็บรวบรวมข้อมูลและทำการวิเคราะห์ข้อมูลโดยการหาค่าเฉลี่ย การวิเคราะห์เชิงพรรณาและการวิเคราะห์โมเดลสมการเชิงโครงสร้าง

ผลการวิเคราะห์ พบว่า การยอมรับเทคโนโลยีสารสนเทศของผู้ใช้งานระบบมีผลการยอมรับด้วยเหตุผลที่ดี ซึ่งผลการวิจัยนี้สามารถพิสูจน์ได้ถึงการยอมรับการใช้งานระบบแผนงบประมาณที่แสดงให้เห็นถึงความสะดวกและความง่ายในการใช้งานมากกว่าเห็นถึงประโยชน์ ซึ่งการยอมรับมีอิทธิพลมาจากปัจจัยที่มีส่วนผลักดันให้เกิดผลในเชิงบวก เช่น การสนับสนุนการใช้งานระบบ ความง่ายและความสะดวกในการใช้งาน ซึ่งจากการวิเคราะห์โดยใช้ TAM2 พบว่า ผลช่วยสนับสนุนโมเดลหลักและถือเป็นการสนับสนุนให้เกิดการใช้งานระบบที่ช่วยให้สามารถเพิ่มประสิทธิภาพในการดำเนินงานขององค์กรให้บรรลุตามวัตถุประสงค์และเป้าหมายที่วางไว้

109 หน้า

CONTENTS

CONTENTS (Cont.)

LIST OF TABLES

LIST OF FIGURES

LIST OF FIGURES (Cont.)

CHAPTER I
INTRODUCTION

1.1 Background and Problem Statement

The progress in terms of information technology today takes important roles and drives the users to be able to collect, adjust, change, see, evaluate and analyze the data easier. Moreover, the information technology helps originate the improvement of process and work system. This makes efficiency and effectiveness through the operation of organizations.

Information technology can respond various needs such as quickness, correctness and accuracy. Moreover, the organizational management today focuses on the operation to achieve the goals according to the purposes of the organization which leads to the efficiency and effectiveness of work, therefore any operational management is able to work effectively, efficiently and achieve the purposes of the organization depends on the main factors of management which include human, money, parcel, management and computer technology (Suksan Phrombunreung, 2010). Hence, computer technology is regarded as an important tool or factor towards the office. This is because the office is necessary to use the computer technology for operational purpose. The operation of organization and service facilitates and increases the efficiency of operation. The principles of good management will lead the economic budget use in order to be worthy in terms of investment and create the highest benefits through the organization.

The organization which is good in terms of work system, administrators, employees and coordination are able to be successful for preparing the readiness of business competition further which seems to have higher competition. Therefore, if any organization does not improve itself or prepare for readiness to apply the information technology system that organization will be disadvantage towards the competitors. Moreover, current technology is progressive very much thus the business styles are adapted more according to the technologies which are also more especially

various data bases which can be linked to one another. Today there is no any organization which will be successful without good information technology system (Opas Aiamsiriwong, 2008).

The organizations and offices both government and private sectors are necessary to adapt seriously in order to create the effectiveness to the service and operations especially the government sectors which are really necessary to adapt themselves to the globalization period to be able to communicate quickly. The adaptation for the globalization period has to be done by adjusting the structures of organization, methods of operation and the most important it has to use the information technology as the tool to manage the data which is considered as the precious resources and able to add the values. The reasons and necessities to develop the information technology for government sectors because the information technology is considered as the precious and crucial resources, it is necessary to use the information technology to help managing for being able to be the utmost benefits through operation for the quickness, correctness and effectiveness. Moreover, this can help the system of government management modern and become the crucial tool for helping the administrators to make decision making and plan the operation in the long run.

Department of Industry Promotion is the organization under the Ministry of industry. The Department performs the main duty as supporting and researching, controlling and protecting all industries which have already been managed and for all industries which will be originated in the future to be able to operate according to the good forms and methods. Moreover, it will help supporting and developing both medium and small sizes of industries, community enterprises, entrepreneurs and service providers of industrial business in order to create the capacity and competence of excellent trading in order to be ready for entering into the Asean Economic Community (AEC) and sustainability to the universal. Department of Industry Promotion therefore has the information technology to help operating in various aspects more and increase the effectiveness of service and organizational management, reduce the redundancy of information technology development in the future as well as supporting the organization to have clear orientations of assigned operation and be able to perform the missions and duties of supporting and giving services in various

network system as well as developing the various information technology systems which include the system of electronic documents collection, E-Mail system, annual budget plan system, members data base system, HelpDesk system, project management system, warning system, information record system of employers' contributions, project system of community organization network center and data base system, etc. which is managed via DIP Portal (http://portal.dip.go.th) the central website of the Department of Industry Promotion. The website helps link the use of every system to be linked with every organization both central and provincial sectors as well as being able to communicate through the electronic system for operation thoroughly, conveniently and effectively (Wirat Amornlertwit, 2009).

According to the information technology system mentioned above, a system which is crucial for operation of the Department of Industry Promotion is that the annual budget plan system, the system is used for controlling the expenses of budget money according to various plans under the Department of Industry Promotion allowed and it is regarded as the budget system indicated the link between used resources and occurred contributions by having the plan process budgeting as well as follow and evaluation which are considered as the crucial components. The crucial objectives of budgeting principle is to emphasize the responsible organizations to the occurred products and results, therefore the Department of Industry Promotion invests and develops the system of annual budget plan to make the utmost effectiveness to the operation and be in accordance with the users' needs by employing the B-Time company to take care of and develop the system caused by the operation and use of the last annual budget plan which was not evaluated the results of system use. Moreover, the operation result was not in accordance with the set goals, the system could not be used effectively or rather well because the developed or improved system use took time of education and practice for a period. If the personnel accept new technologies slowly therefore it affects the not worthy to invest for system development. And if the personnel do not accept or realize the importance, the system development is difficult to be successful.

Therefore, the researcher is interested in "use acceptance on annual budgets plan system of Department of Industrial Promotion" to study the acceptance level of information technology, factors relating and influencing the information

technology, problems and obstructions towards the information technology acceptance and to recommend the ways to create the information technology acceptance and improve the application of information technology by applying the Technology Acceptance Model 2 (TAM 2) which is the theory usually used to describe the relationship of causes and results of either acceptance or rejection of technology use as the framework of study. According to the concept framework of TAM, the behavioral intention to use is caused by the perceived usefulness and perceived ease of use. The research results can be used for planning, improving and developing the system, as well as being the ways to support, increase capacity and develop the personnel to be qualitative and effective for the operation.

1.2 Objective of the Research

The purposes of this research were to study the acceptance level of information technology, factors relating and influencing the acceptance, problems and obstructions towards information technology acceptance on the use of annual budget plan system of Department of Industrial Promotion and recommend the ways to create the acceptance of information technology towards the organizations.

1.3 Scope of the Research

The scope of research focuses on the use acceptance of annual budget plan system of the Department of Industrial Promotion both in central and regional region. The study was done with civil servants, governmental employees and service contractors related to this system use by applying. The technology of Acceptance Model 2 (TAM 2) created by Davis was used to describe the relationship and influence towards either acceptance or rejection of information technology as the concept framework of the study.

1.4 Expected Benefits

The benefits expected from this research are to perceive the acceptance level of information technology, factors relating and influencing the acceptance, problems and obstructions towards the acceptance and recommend ways to create the acceptance of information technology to the involved organizations or authorities to apply these information for improving and developing the system to be qualitative and effective for the operation and management, as well as getting the information to be the ways for supporting and increasing the capacity and developing the personnel to reach the suitable qualifications and be able to support the alteration of information technology which will be used for operation.

1.5 Glossary

1. Information technology acceptance means the perception of values and significance on information technology and making decision to accept the information technology to be applied for the operation correctly, appropriately and achieving maximum benefits.

2. Information technology means technology of computer and technology of various kinds of telecommunication related to the operation of organizations in terms of all analysis, processing, storage, publicizing and information application.

3. Annual budget plan system means the system used for planning and managing all budgets got for organizational allocation by presenting the projects and activities of all operations during the time determined, as well as the management of projects, activities and expenses to be successful according to the plans and goals which have been set by the organizations.

CHAPTER II
LITERATURE REVIEWS

2.1 Information Technology in Government

2.1.1 Definition of Information Technology

Today, information technology takes roles widespread in every circle because the information technology becomes the crucial tool of operation in every aspect such as education, commerce, agriculture, industry, public health, research and development, as well as politics and official administration. The information technology help the operation is more effective and efficient (Information Technology for Life Course, 2009). There are several scholars who mention about the definition of information technology as follows:

Kamolrat Intaratat (2007) suggests that the information technology means the use of technology to create the added value for the information technology thus it makes the information technology beneficial more and information technology facilitates the communication to be connected unlimitedly.

Suan Dusit Rajabhat University (2007) indicates that the information and communication technology is the main both sides of technology including computer technology and telecommunication technology which is combined altogether in order to be use in the process of providing, storing, creating and publicizing the information technology in various types such as sound, image, movement image, message, or alphabets and numbers to increase the efficiency, correctness, accuracy and quickness to be available for the application.

Pathomporn Suksa-ard (2008) said that the information technology means the conduction of information by using the computer technology and telecommunication technology for preparing the data and then it is processed to become the information in the form of sounds, image, alphabet and number in order to publicize to the administrators for using as the decision making tools and for the staff

in various departments who need it by using the telecommunication system such as via the satellite network, telephone line and fax.

Phra Wittaya Kongprab (2010) explains that the information technology means the process of seeking for raw materials from various resources to screen or process the results then store those data in the electronic equipment which is able to be stored in numerous quantity and be able to adjust especially in the computer system and other telecommunication system which will be able to pass the activities of news and information on the receivers quickly and catch up with the situations.

Tanwin Na Nakorn (2011) suggests that the information technology means the operation process, analysis acquisition, storage and news and information publication, to increase the effectiveness, correctness and benefits of organization and system users. The information technology consists of computer technology and telecommunication technology this can be considered that it is the new innovation created by human to be beneficial for business, organization and education.

Kannika Saisin (2012) indicates the information technology as the technology which consists of computer technology and telecommunication technology applied altogether to be effective for storage and information exchange to be utmost benefits and be able to publicize the information to the information receivers correctly, quickly, to be up to date and varied in several channels.

Wimol Mirasing (2012) said that the information technology means the acquisition process, processing, storage of information export, by using the electronic technologies especially computer system and telecommunication system as the main sources.

Jeerapan Jarerat (2012) explained that the information technology means the electronic technology, computer technology and communication technology, which are used as the machine and media for storage, processing, data analysis, and information publication in various types such as sound, image, alphabets; for example news and information of religion, politics, society, public health, economy and entertainment, in order to be in accordance with the purposes of users. This increases the efficiency, correctness and correctness of operation.

According to the meanings mentioned above, it can be concluded that information technology means the conduction of information by using the computer

technology and telecommunication technology to increase the efficiency, correctness, accuracy and quickness to be up to date for the application effectively.

2.1.2 Significance of Information Technology

Information technology is beneficial for the administration plan for organizational management and for controlling or following the operation results to be in accordance with the purposes and goals of the organization, as well as being able to be used in making decision as the ways to solve various problems occurred within the organization.

Yeun Puworawan (2009) suggests that the significance of the information technology which affects the change of behaviors in various terms of people. Which information technology makes the society change from industrial society to be information society, makes the economic system change from national system to the world economy which makes the world economic system is linked together with the information network and it causes the globalization society, makes the organization is in the bound characteristics and commandment by aligned characteristics more. The business unit has smaller size and links with other business as the network. The business conduction is competitive in terms of quickness by using the computer network system and telecommunication as the support in order to change the information easily and quickly, the aesthetic sense of technology and be able to respond the needs of new technology use which can be self-selective, makes the work condition as every place and time and plan of operation can be done longer and help the decision making or alternatives can be done more elaborately.

2.1.3 Information Technology and Organization Development

Information technology or IT takes the key roles in terms of being able to increase the capacity of competition and helps the activity operation of process as well as the change for increasing the effectiveness of organization to be more convenient, or it can be said that the learning about information technology is the supporting factor for the organization to step up to the leadership, therefore the administrators and members of the organization should learn any information technology related to the work and organization. For general people, the learning about information technology

will be beneficial in terms of increasing the opportunity to choose the careers for high salary and opportunity of operation especially if there is the understanding about creating of using and administration of information technology system to be successful, know how to learn and avoid the failures. In the past, the organizational administrators were usually the persons who are in the financial or marketing work line, however in the future the organizational administrators should have knowledge of information technology and experiences from information technology (Kamolrat Intaratat, 2007).

Various organizations realize the purposes to be successful and get advantages over the competitors by using computer technologies increasingly. For example, to control the right of use to allow the users use the private computer for work altogether or the increase of news and information makes the warehouse have to store the news and information systematically, therefore there is the application of computer for document management. The effectiveness of information technology system use in the organization reveals that the information technology can support the various kinds of work of the organization for business operation. Each level of organizations will have the information technology system which facilitates differently, for instance, the Accounting Departing and Financial Department have the information technology system to follow and store as well as using the properties of the organization and process of fund circles, therefore the information technology system supports the effectiveness as a whole image of the organization (Payap University, 2009).

1. To manage the numerical calculation the big size and high speed.

2. To organize the accurate quick communication within and between the organization.

3. To store the big size of information which can be accessed easily and use the little space.

4. To be able to access the numerous information from all over the world quickly and cheaply.

5. To be able to communicate and work mutually from every place and time.

6. To be able to communicate and mutual work from every place and time

7. To increase the efficiency and effectiveness of teamwork without staying in the same place.

8. To be automatic process both semi-automatic and manual work.

9. To interpret the meanings from numerous information.

10. To be able to conduct the wireless to support the application of operation in a specific form.

11. The mentioned operation shall be cheaper than the manual operation.

12. To be able to support the business purposes which is the improvement of products to reduce the fund (to support the decision making to increase the relationship with the customers and develop the new application).

The organization has to self-improve to enter into the competition period which is not only between the business rivals of private sectors but also the self-competition for the organization and organization of government sectors which is crucial for organizational development as follows: (Wuttichai Bunyawan, 2009).

1. The Business Environment Impact: Sometimes the effectiveness of operation by the organization is not originated within the organization but it depends on the external environments which extremely affect the effectiveness of the organization and cannot control, hence the organization has to acknowledge the problems about the problems and opportunity which are the main components of the environments affecting the effectiveness in the organization. Moreover, the occurred problems help the organization respond the problem solving and have the opportunity to develop the organization to be effective according to the process of organization which has to obtain the clear goals, strategy and plan.

2. The pressure of environment affects the effectiveness in the organization when the information technology system is used which consists of the overall economy which has the high competition, quickness of operation which can be competitive the trading partners and make the employees practice to think of new change which is beneficial to the organization, the credibility of the organization in terms of customers' connection to maintain the customers. Technology is being changed quickly; hence it has to be improved to be modern all the time. Moreover, a lot of information makes the organization develop operation difficultly.

3. For the adaptation process of the organization, change of environments exist all the time to make the organization be effective or successful, the organization has to adapt or agile. The process of organization adaptation is as follows:

3.1 To make understanding about the environmental change and change within the organization the quickest when the issues happen. For example, the use of software to help prediction and analyze the business in various terms as well as investigating the mistakes before the crisis of the organization.

3.2 To encounter the correct and appropriate change, such as the increase of effectiveness on software to be able to analyze the possibility to be occurred with the risk of all organization quickly in order that the organization can drive in the correct direction and analyze the consumers' needs or the service users to be able to determine the product and service price correctly and appropriately.

3.3 To change the organization to be the Digital Office and flexible because today is the period that the communication and information exchange is really crucial therefore it is necessary to adjust the organization to be flexible, quick data analysis and communication so that the administrators can make a decision quickly and to get advantages in business.

3.4 Do not wait for the trade competitors to start the change first.

3.5 Adjust the information technology system of the organization quickly, therefore the organization has to manage the good information technology system and use the effective tools.

4. The benefits of flexibility by the organization to support the situations or change which has been occurred. This will be active within the organization, therefore the benefits of organizational flexibility are that helping the organization to be able to compete and respond the needs quickly and effectively.

5. The activities help respond the occurred crisis in the organization. The pressure from environments occurred make the organization has to deal with the occurred obstructions. The methods which can respond the pressures or occurred crisis in the organization can be managed as follows:

5.1 Develop strategic systems: it is the system which brings the prepared strategies to be beneficial, such as the development in new forms of cost reduction, the increase of service competency to be better.

5.2 The creation of satisfaction to the service users as the first.

5.3 The analysis to make the operation appropriate and reduce the cost as well as stimulating the decision to produce and support the operation mutually. This will help make decision for things done regularly.

5.4 The change of new structure to be effective and get the better operation results by using the management methods and new system organizing for operation.

5.5 The use of self-service for data management.

5.6 The support of competition by using the good, qualitative and effective operation principles for achievement.

5.7 The purchase order of the customers or by order has to use the procedures and process of effective operation to be competitive in terms of standard products price.

5.8 The seeking for appropriate needs to determine the standard to be effective and efficient.

5.9 The creation of business members makes the business competition have the equal opportunity to reduce the risks and costs. This is considered as the effective collaboration and other benefits.

5.10 The stimulation to have new improvement and creation which has to use the technique of reward for compensation and collaboration.

5.11 It is the helper of business operation which is the operation process, the operation procedures and regular operation by using the simulation principles of new business organizing.

5.12 The use of news and information as well as knowledge to acquire the storage and recycle by the organization.

5.13 The control of technological development in the organization has to use the methods of completion analysis and appropriate plan as well as the analysis of cost management, business benefits and risks.

5.14 The combination of system by applying the information technology system within organization together with other systems which work altogether for convenience, reducing the costs and analyzing the errors and advantage competition.

However, the conduction by using information technology to help the organization can be high investment, and sometimes it is difficult to calculate the compensation so it causes the inability to calculate the proportion or estimate the appropriate investment. For example, if all employees use the computer by investment for each person using hardware and software as well as the link network which is not less than one hundred thousand baht. However, if it is thought that all employees are more effective for operation for 20%, this means that the results can be got more quickly or work in higher quantity in the equal time. The increase of assumption item for 20% is equal to the increase of effectiveness and reduction of salary expenses. If each employee gets the salary for 20,000 per month averagely, it means that the effectiveness is increased for 4,000 baht per month, or almost 50,000 baht per year. Therefore, the investment compensation will be worthy within 2 years. However, to calculate the IT expenses is not easy as the sample above. This is because the investment has the various aspects of expenses and difficult to calculate the compensation in numbers. Hence the evaluation of expenses and compensation is hard to do (Suan Dusit Rajabhat University, 2007).

2.2 Budget Plan System

Budget planning system is the planning process about financial number orderly in a period of time. The system emphasizes limited existing resources to help the organization get the return according to the set goals. Generally, budgeting of Thailand for government office has been several forms and has been improved and changed of the budget planning system continually. In the past, there was the budget system by centralization which cannot respond the rapid change of environments. Therefore, it is the push to have improvement of budget system to get the budget as an instrument of economic development and support the economic problem solving

effectively, as well as encouraging the strategies of appropriate resources allocation (Winai Kaewnoi,).

The budget system has been used in Thailand since the beginning of budgeting until now can be categorized into 4 major types as follows:

1. Line - Item budgeting: the purpose is to be used as the instrument to control the expenses for not using too much as determined or different from the amount determined by emphasizing the control of import factors in each item. The characteristics of budgets system are as follows:

1.1 Emphasize the control and investigation to be in accordance with the determination by categorizing the expenses according to the expense group and expense lists. For budget request, it has to determine the lists according to the expense clearly and use the budgets according to the lists as determined. The budget cannot be used falsely or different from the lists determined.

1.2 Evaluate the success or failure of the budgets from the ability to use the budgets received to be finished by not focusing on the effectiveness of administration and contributions caused by budgets use.

1.3 Lack of flexibility and activeness of operation

The advantages of lists budget system help control the expenses of organizations to be the good ways because there is the expression of expenses clear, therefore it is easy for operation of increasing and decreasing the lists.

For the disadvantage, the lists budget system cannot be measured the success of work because the approval of installment money will be approved according to the expenses category which is not approved according to the work plan or project, therefore it cannot be seen the connection between allocated resources to the work or project and the results which need to be happened. This is the obstruction for evaluating success of operation on budget system from the lists to the performance budgeting.

2. Performance Budgeting is the budgeting system which emphasizes effectiveness of administration affected by the concept of scientific management which view that the administration has to be done by using criteria determined from studying and analyzing carefully in order to acquire the best ways for more effective production. Moreover, it will make the system to be connected with the budgets

allocation and plan which will help the budgets allocation reasonable. This characteristic of budgets means the categorization of budgets according to the work aspects or purposes of work which will measure the effectiveness of conduction to find the best ways for operation and determine the measure of work measurement and accounting system to express the prices per unit for calculating the expenses of work. The advantages are to make the expenses are managed effectively, worthwhile and help the service department be flexible for administration and purchasing of equipment focusing on contribution production.

The disadvantages are to use the information expressing the contributions in the past. The information may be found difficultly, also the consideration of worthiness.

3. Planning-Programming-Budgeting System: PPBS; management of projects and budgeting or sometimes they are called Planning–Programming Budgeting System. The crucial characteristics are as follows:

3.1 Apply the long terms plan (3 – 5 years) to be used for determining the budgets money by planning to connect with the policies, government goals, and see the continual conduction to the future time.

3.2 Do the work plan categorizing according to each policy in terms of work plan categorization of plan to be the major plan, secondary plan, major plan, secondary project and activity and categorized by budgets according to the plan or project.

3.3 Make the plan according to each aspect of policies and analyze the purposes of project, results and effects of the projects occurred as well as analyzing various alternatives to select the effective and efficient ways for achieving the purposes of project, consider all expenses of the projects by focusing on the techniques of analysis.

3.4 The proposition to request the budgets has to be managed through 3 sets of document including Program Memorandum (PM); this is the document expressing the structure of work line, Program Financial Plan (PFP); this is the expenses of projects which need long terms of budgets money to be the assurance that the projects will be continued in the further years and Special Study (SS); this is the document expressing the project analysis and alternatives of various projects.

The advantages include the ability to analyze the possibility of long terms plan, encourage the country development by having the supported plan, be able to analyze the limited existing resources to be effective and efficient.

4. Performance Based Budgeting: (PBB); this is the budgeting system focusing on the successful results of products and results. There are objective goals determination, clear strategies, indicators of work achievement and be able to measure and assess the performance results by having flexibility of performance process to be in accordance with the changeable situations, emphasize the responsibilities of administrators instead of details control in disbursement. The crucial characteristics of PBB are the significance with Output and Outcome in accordance with the policies and goals of the government.

Currently, the Department of Industrial Promotion develops the web system of http://portal.dip.go.th to manage the various e-service systems of the Department of Industrial Promotion. One of the development system and significance towards the operation is the plan system of annual budgets plan which is considered as significant instrument for controlling the project cost as well as work plan from the level of project to management to make effectiveness of money plan because it is the work plan expressed in terms of qualitative results occurred the scheduled time such as weekly, monthly, quarterly or yearly. Generally, the occurred budgets are conducted once a year called annual budgets. The annual budgets start on 1 October and finish on 30 September of the next year. Hence, the budgets are considered as the instrument which will help in terms of plan, purposes determination and performance goals, in order to apply budgets for work control and be able to follow the performance results of each organization very well.

System of annual budget plan of Department of Industrial Promotion divides the performance for users group into 2 parts which include general users and authority parts as the follows;

1. General users part; when users start work system, the first screen is the Login screen for entering into the system as the Figure 2.1

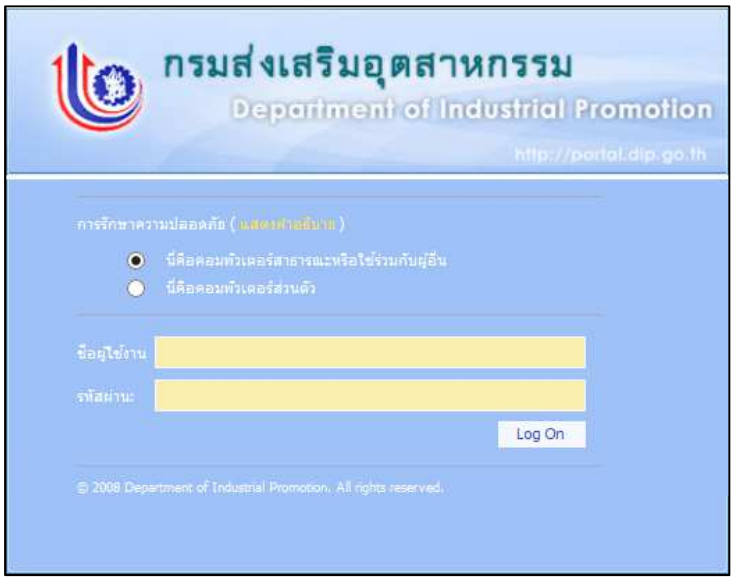


Figure 2.1 Budget plan login for user.

When entering into the system by the user name and password of user will appear the major screen for the use. This consists of 5 major menus for the use which includes basic information, plan, plan adjustment, results and report. Each menu will be connected to the webpage related to the system as the Figure 2.2

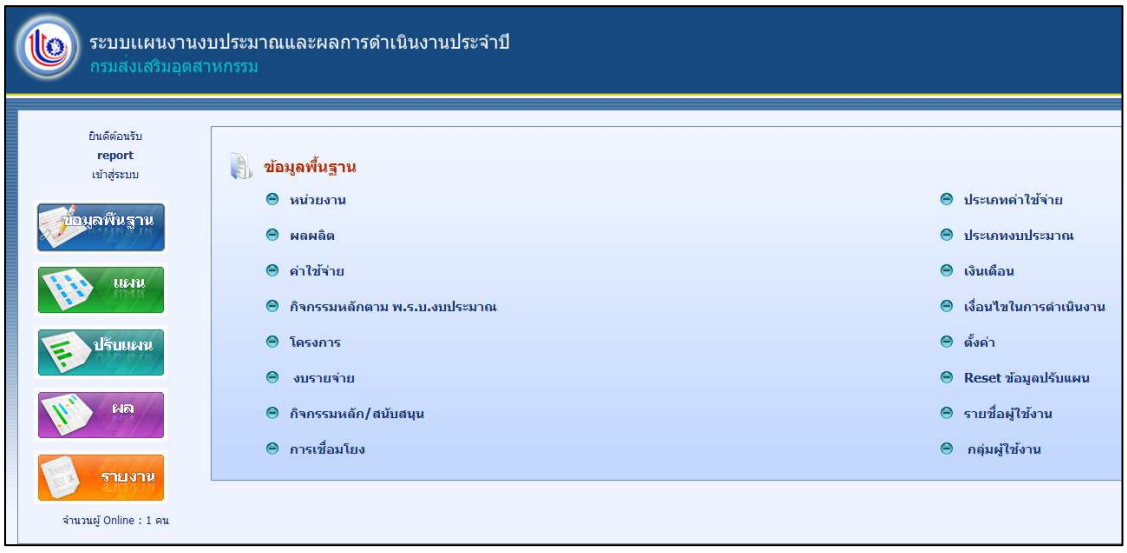


Figure 2.2 Budget plan system.

The basic information is the part which expresses the structural data, plan or activities, various kinds of expenses, and recommendation of use in terms of various parts of the system.

Plan this part is used for recording the plan and results of disbursement of the projects or activities according to various expenses in each month and each quarter to be in accordance with the set goals as the Figure 2.3

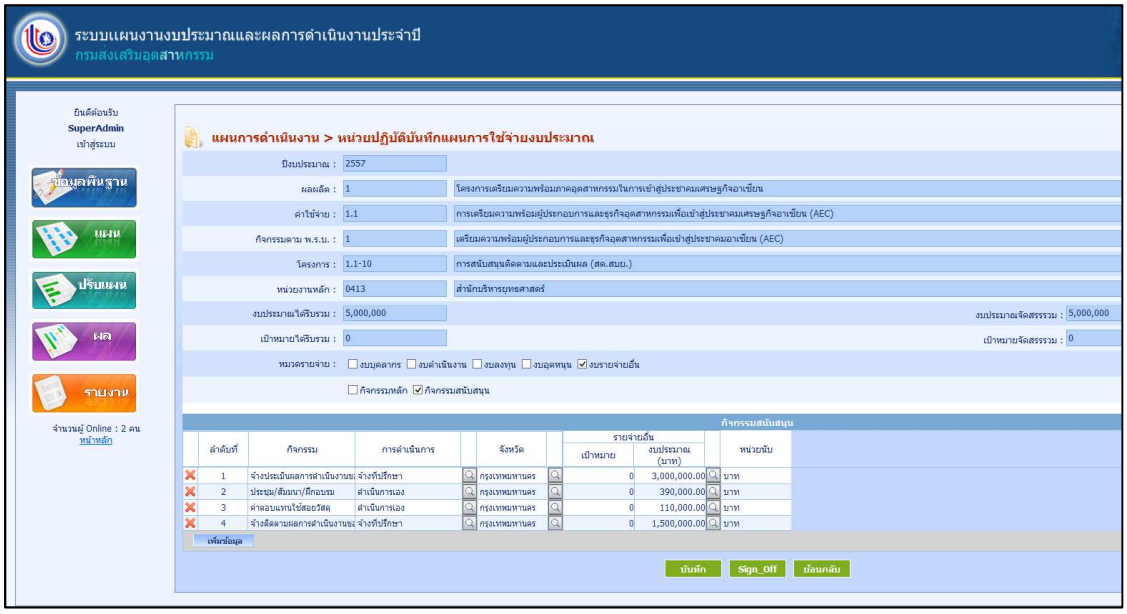


Figure 2.3 Plan this part is used for recording the plan and results.

Plan adjustment this part is used for recording the plan of projects or activities according to the various expenses which request to adjust the plan as the Figure 2.4

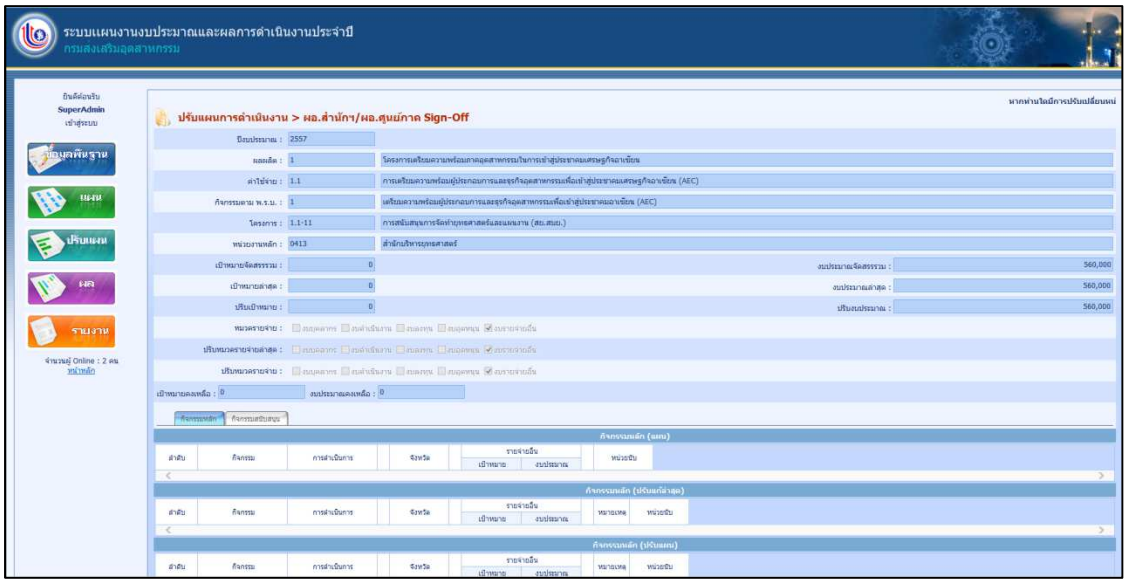


Figure 2.4 Plan adjustments this part is used for recording.

Results this part is for recording the results of disbursement of the projects or activities according to various expenses in each month and each quarter as the Figure 2.5

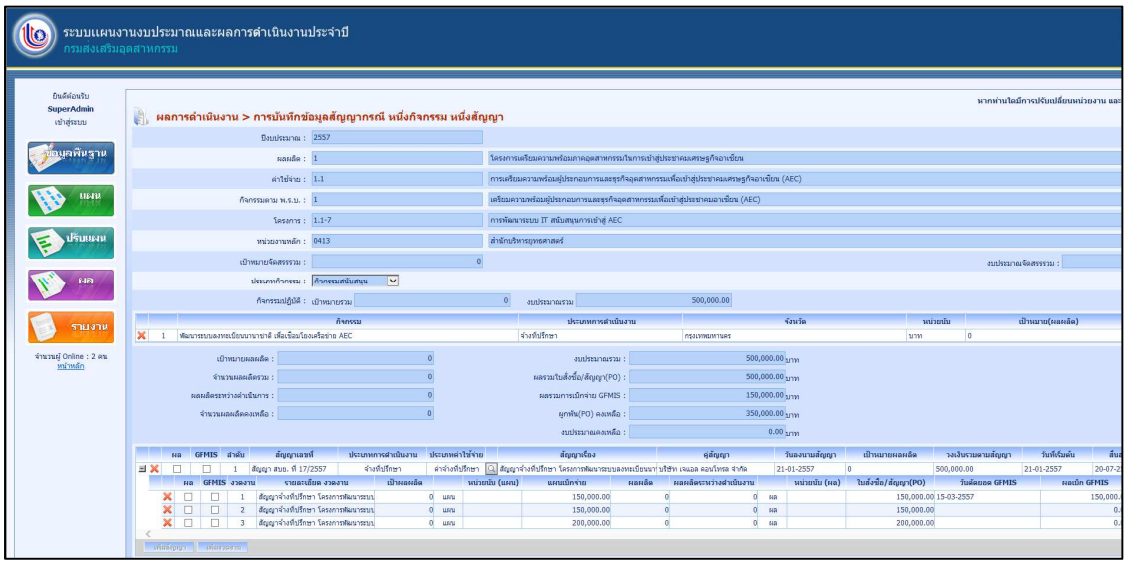
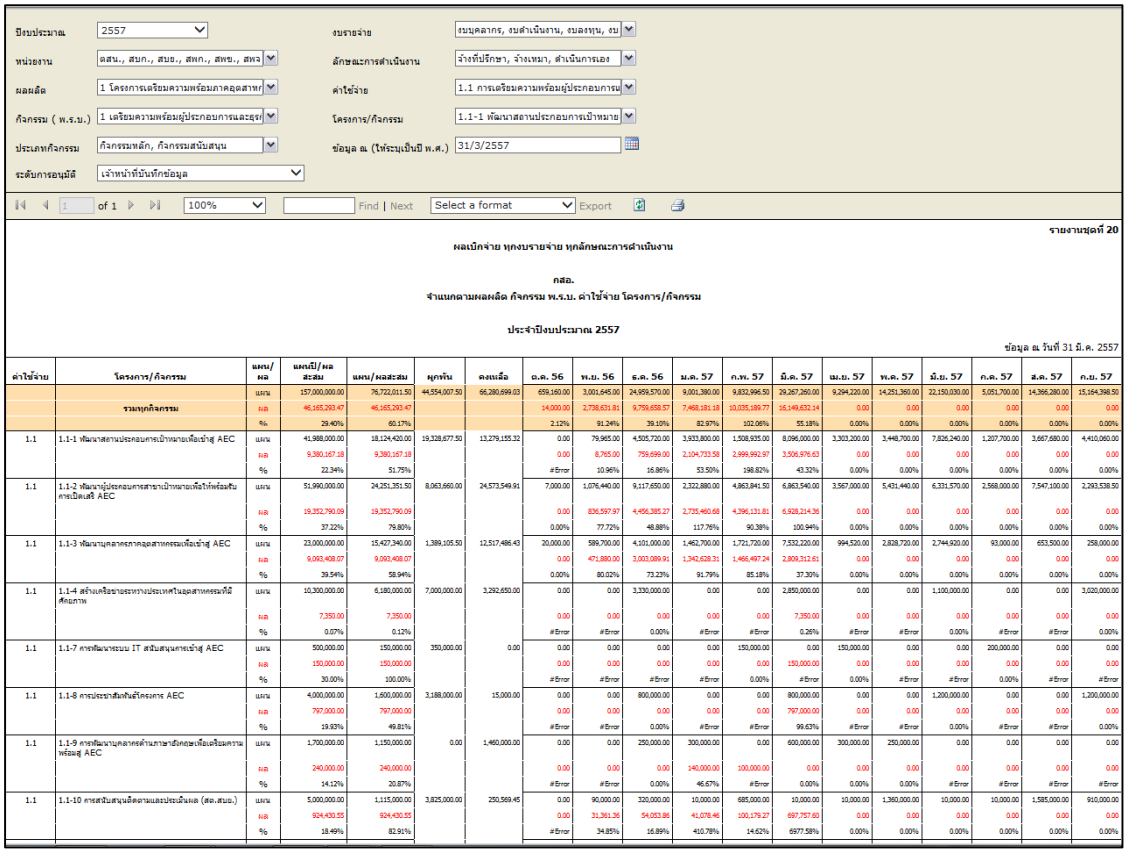


Figure 2.5 The recording the results of disbursement of the projects.

Report this part is used for reporting the results of disbursement of projects or activities according to various expenses in each month and each quarter to be in accordance with the set goals as the Figure 2.6



ปีงบประมาณ: 2557 | งบรายจ่าย: งบบุคลากร, งบดำเนินงาน, งบลงทุน, งบ
หน่วยงาน: ดสน., สบก., สบย., สพก., สพข., สพจ | ลักษณะการดำเนินงาน: จ้างที่ปรึกษา, จ้างเหมา, ดำเนินการเอง
ผลผลิต: 1 โครงการเตรียมความพร้อมภาคอุตสาห | ค่าใช้จ่าย: 1.1 การเตรียมความพร้อมผู้ประกอบการ
กิจกรรม (พ.ร.บ.): 1 เตรียมความพร้อมผู้ประกอบการและธุร | โครงการ/กิจกรรม: 1.1-1 พัฒนาสถานประกอบการเป้าหมาย
ประเภทกิจกรรม: กิจกรรมหลัก, กิจกรรมสนับสนุน | ข้อมูล ณ (ให้ระบุเป็นปี พ.ศ.): 31/3/2557
ระดับการอนุมัติ: เจ้าหน้าที่บันทึกข้อมูล

1 of 1 | 100% | Find | Next | Select a format | Export

รายงานชุดที่ 20

ผลเบิกจ่าย ทุกงบรายจ่าย ทุกลักษณะการดำเนินงาน

กสอ.

จำแนกตามผลผลิต กิจกรรม พ.ร.บ. ค่าใช้จ่าย โครงการ/กิจกรรม

ประจำปีงบประมาณ 2557

ข้อมูล ณ วันที่ 31 มี.ค. 2557

ค่าใช้จ่าย	โครงการ/กิจกรรม	แผน/ผล	แผนปี/ผลสะสม	แผน/ผลสะสม	ผูกพัน	คงเหลือ	ต.ค. 56	พ.ย. 56	ธ.ค. 56	ม.ค. 57	ก.พ. 57	มี.ค. 57	เม.ย. 57	พ.ค. 57	มิ.ย. 57	ก.ค. 57	ส.ค. 57	ก.ย. 57
		แผน	157,000,000.00	76,722,011.50	44,554,007.50	66,280,699.03	659,160.00	3,001,645.00	24,959,570.00	9,001,380.00	9,832,996.50	29,267,260.00	9,294,220.00	14,251,360.00	22,150,030.00	5,051,700.00	14,366,280.00	15,164,398.50
	รวมทุกกิจกรรม	ผล	46,165,293.47	46,165,293.47			14,000.00	2,738,631.81	9,759,658.57	7,468,181.18	10,035,189.77	16,149,632.14	0.00	0.00	0.00	0.00	0.00	0.00
		%	29.40%	60.17%			2.12%	91.24%	39.10%	82.97%	102.06%	55.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1.1	1.1-1 พัฒนาสถานประกอบการเป้าหมายเพื่อเข้าสู่ AEC	แผน	41,988,000.00	18,124,420.00	19,328,677.50	13,279,155.32	0.00	79,965.00	4,505,720.00	3,933,800.00	1,508,935.00	8,096,000.00	3,303,200.00	3,448,700.00	7,826,240.00	1,207,700.00	3,667,680.00	4,410,060.00
		ผล	9,380,167.18	9,380,167.18			0.00	8,765.00	759,699.00	2,104,733.58	2,999,992.97	3,506,976.63	0.00	0.00	0.00	0.00	0.00	0.00
		%	22.34%	51.75%			#Error	10.96%	16.86%	53.50%	198.82%	43.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1.1	1.1-2 พัฒนาผู้ประกอบการสาธารณะเป้าหมายเพื่อให้พร้อมรับการเปิดเสรี AEC	แผน	51,990,000.00	24,251,351.50	8,063,660.00	24,573,549.91	7,000.00	1,076,440.00	9,117,650.00	2,322,880.00	4,863,841.50	6,863,540.00	3,567,000.00	5,431,440.00	6,331,570.00	2,568,000.00	7,547,100.00	2,293,538.50
		ผล	19,352,790.09	19,352,790.09			0.00	836,597.97	4,456,385.27	2,735,460.68	4,396,131.81	6,928,214.36	0.00	0.00	0.00	0.00	0.00	0.00
		%	37.22%	79.80%			0.00%	77.72%	48.88%	117.76%	90.38%	100.94%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1.1	1.1-3 พัฒนาบุคลากรกลุ่มอุตสาหกรรมเพื่อเข้าสู่ AEC	แผน	23,000,000.00	15,427,340.00	1,389,105.50	12,517,486.43	20,000.00	589,700.00	4,101,000.00	1,462,700.00	1,721,720.00	7,532,220.00	994,520.00	2,828,720.00	2,744,920.00	93,000.00	653,500.00	258,000.00
		ผล	9,093,408.07	9,093,408.07			0.00	471,880.00	3,003,089.91	1,342,628.31	1,466,497.24	2,809,312.61	0.00	0.00	0.00	0.00	0.00	0.00
		%	39.54%	58.94%			0.00%	80.02%	73.23%	91.79%	85.18%	37.30%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
1.1	1.1-4 สร้างเครือข่ายระหว่างประเทศในอุตสาหกรรมที่มีศักยภาพ	แผน	10,300,000.00	6,180,000.00	7,000,000.00	3,292,650.00	0.00	0.00	3,330,000.00	0.00	0.00	2,850,000.00	0.00	0.00	1,100,000.00	0.00	0.00	3,020,000.00
		ผล	7,350.00	7,350.00			0.00	0.00	0.00	0.00	0.00	7,350.00	0.00	0.00	0.00	0.00	0.00	0.00
		%	0.07%	0.12%			#Error	#Error	0.00%	#Error	#Error	0.26%	#Error	#Error	0.00%	#Error	#Error	0.00%
1.1	1.1-7 การพัฒนาระบบ IT สนับสนุนการเข้าสู่ AEC	แผน	500,000.00	150,000.00	350,000.00	0.00	0.00	0.00	0.00	0.00	150,000.00	0.00	150,000.00	0.00	0.00	200,000.00	0.00	0.00
		ผล	150,000.00	150,000.00			0.00	0.00	0.00	0.00	0.00	150,000.00	0.00	0.00	0.00	0.00	0.00	0.00
		%	30.00%	100.00%			#Error	#Error	#Error	#Error	0.00%	#Error	0.00%	#Error	#Error	0.00%	#Error	#Error
1.1	1.1-8 การประชาสัมพันธ์โครงการ AEC	แผน	4,000,000.00	1,600,000.00	3,188,000.00	15,000.00	0.00	0.00	800,000.00	0.00	0.00	800,000.00	0.00	0.00	1,200,000.00	0.00	0.00	1,200,000.00
		ผล	797,000.00	797,000.00			0.00	0.00	0.00	0.00	0.00	797,000.00	0.00	0.00	0.00	0.00	0.00	0.00
		%	19.93%	49.81%			#Error	#Error	0.00%	#Error	#Error	99.63%	#Error	#Error	0.00%	#Error	#Error	0.00%
1.1	1.1-9 การพัฒนาบุคลากรด้านภาษาอังกฤษเพื่อเตรียมความพร้อมสู่ AEC	แผน	1,700,000.00	1,150,000.00	0.00	1,460,000.00	0.00	0.00	250,000.00	300,000.00	0.00	600,000.00	300,000.00	250,000.00	0.00	0.00	0.00	0.00
		ผล	240,000.00	240,000.00			0.00	0.00	0.00	140,000.00	100,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		%	14.12%	20.87%			#Error	#Error	0.00%	46.67%	#Error	0.00%	0.00%	0.00%	#Error	#Error	#Error	#Error
1.1	1.1-10 การสนับสนุนผลิตตามและประเมินผล (สอ.สบอ.)	แผน	5,000,000.00	1,115,000.00	3,825,000.00	250,569.45	0.00	90,000.00	320,000.00	10,000.00	685,000.00	10,000.00	10,000.00	1,360,000.00	10,000.00	10,000.00	1,585,000.00	910,000.00
		ผล	924,430.55	924,430.55			0.00	31,361.36	54,053.86	41,078.46	100,179.27	697,757.60	0.00	0.00	0.00	0.00	0.00	0.00
		%	18.49%	82.91%			#Error	34.85%	16.89%	410.78%	14.62%	6977.58%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Figure 2.6 Report the results of disbursement of projects or activities.

2. Authority; when the user starts the system use, the first screen is the Login screen to enter to the system as the Figure 2.7

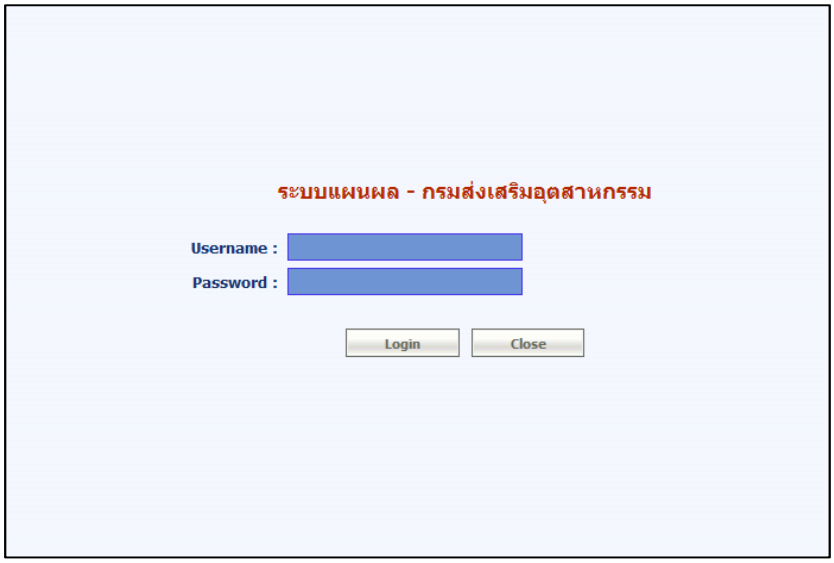


Figure 2.7 Budget plan login for admin.

When the system is entered by the user with password, it will appear at the screen to express the lists menu of all organizations. Each menu will be connected to the webpage and data base of each organization. The function of use and screen form is similar to general user which has been shown and mentioned already above. However, in terms of authority, it can be investigated and adjusted the information in various terms as the Figure 2.8

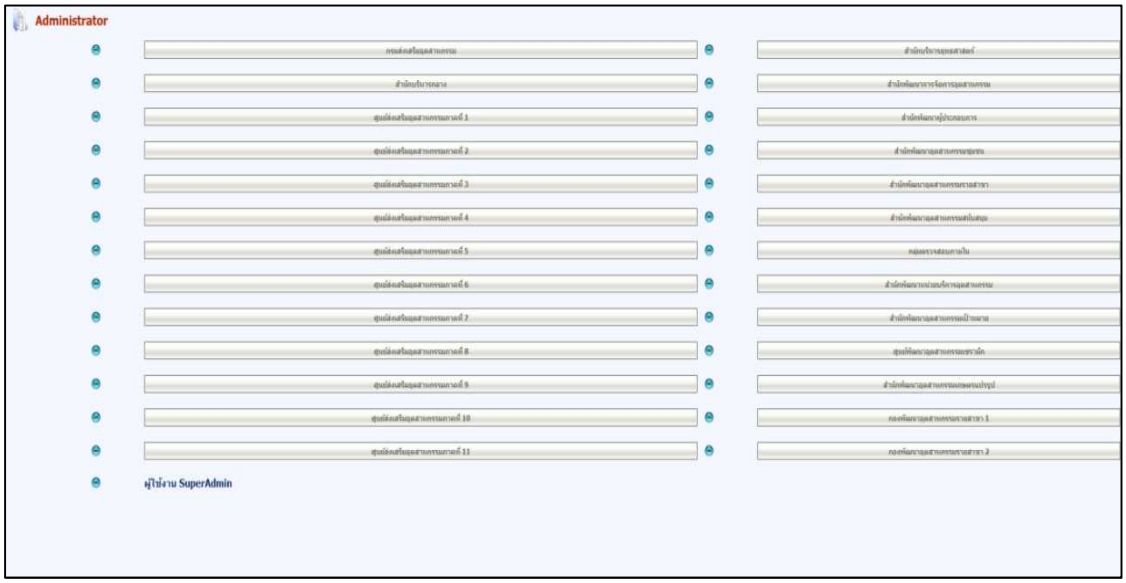


Figure 2.8 The screen to express the lists menu of all organizations.

2.3 Concept and Satisfaction Theory

2.3.1 Definition of Satisfaction

Satisfaction is the feeling perceived by heart and may be expressed through behaviors to let the people around know. There is several scholars mention the definitions of satisfaction as follows:

Kantaya Permpol (2007) said that the satisfaction is the positive feeling of the employees got by the operation because of the basic response from the organization as expected. It can be considered that the satisfaction from operation is related to the need or motivation of each individual. Therefore, this issue is really crucial to the management of organization to be successful and be able to operate the enterprises as the missions determined.

Nuttakritta Chitnork (2008) indicated that satisfaction is the attitudes of individual to give the value of feeling in a positive ways. If the things are set the goals as expected by originating from the physical environments, the satisfaction will be able to express the behaviors, such as face, words, gestures or behaviors.

Sommai Piatanom (2008) suggests that the satisfaction is an attitude which is abstract and cannot be seen in shapes. It is the private feelings when receiving the response of the needs which a person lacks of. Moreover, it is the thing which determines the behaviors of expression by the individual affecting the selection to practice that activity. Satisfaction will cause a person feel satisfied or respond the needs and cause happiness as well as various environments related. This factor causes satisfaction.

Chanchai Pingkhuntod (2009) said that the satisfaction means the positive attitudes of the person towards the work or activities they are doing which make the person have a feeling, enthusiastic, have a spirit to work, etc. These things cause morality for work and affect the effectiveness and efficiency of operation and it is in accordance with the goals of organization.

Nisanart Chanarpat (2011) gives the definition of satisfaction which means the attitudes of the person towards the operation or activities in a positive way. Therefore, the satisfaction is crucial for the operation or activities of organization

since it will be the important variable which help the operation achieve the success and quality. Moreover, the assigned work can be successful and effective as well as helping the employees feel good spirit and cause good relationship among the individuals in the organization and can increase the productivity and effectiveness of the operation.

Nion Singhiranreaung (2012) suggests that the satisfaction means the components of feeling on attitudes. It is only the individual feelings towards a positive issue which causes satisfaction and feeling of person who need a thing. Satisfaction will be occurred when a person receives the things that he or she needs and it will be reduced when he or she gets responses. If the needs are not responded, it can be caused the dissatisfaction.

2.3.2 Concept and Theory of Satisfaction

Kotler and Armstrong (2002) reports that human behavior happen to need have incentives or propulsion pressure is a requirement that pressured until much enough to motivate give guest born behavior so reply meet the needs of manually. Certain requirement is the requirement way biology occurs of conditions tensions such as hunger thirst or hardships certain. Is the requirement psychological born from a like recognition and regarded needs mainly may not much enough to motivate give guest actions during that time. The needs became as incentives. When received stimulation adequately until the birth tensions.

1. Maslow's Hierarchy of Needs Theory: Maslow (1970) indicated that the person will have the needs ranged by the most basic level to the highest level. The scope of Maslow depends on the basis of fundamental assumption of 3 items including 1) individual; the living things which have needs. The needs of individual can influence the behaviors. Only the un-responded needs can influence the needed behaviors which are responded will not be motivated, 2) the needs of individual will be ranged according to the significance or being the level from the basic needs such as food and residence to the complicated needs such as success and 3) the person will step up to the needs in the next level when the lower needs are responded well only, that is, the workers will respond the needs of working experiences which is safe before it is motivated to the response. Maslow studied and divided the needs of human being

into 5 levels. The 1-4 level is the basic needs the 5 level is the high level of needs (Research Committee, Ramkamhang University, 2009).

The level 1: Physiological Needs; this is the lowest needs. These needs mean the drives of basically physical biology, such as the needs of food, weather, water and residence. To respond these needs, the organization shall give the salary enough for a person to be responsible to his or her living (such as food and residence).

The level 2: Safety Needs; the 2nd needs are motivated after the physical needs have been responded. The safety needs mean the needs of safety environments without dangers both from physical and mental aspects. If the organization can respond these needs in various ways, such as the insurance and health, safe place and justice regulations and allowance of labor union, etc.

The level 3: Belonging needs means the needs to participate in and be accepted by the society, friendship, compassion from colleagues, such as the needs of friendship, friends, group, family and love, etc.

The level 4: Esteem needs; the 4th level means the needs of individual to create the self-esteem and praise from other persons. The needs of fame and admiration from others include the announcement of monthly excellent person, this is the example of needs response of fame and honors.

The level 5: Self-Actualization Needs; this means the highest needs. These needs will be achieved by using all competence, skills and potentials effectively. The person who is motivated by the needs of successful life will seek for the challenge work.

According the definitions mentioned above, it can be considered that the theory emphasizes the change of human’s needs and it will respond towards the change of organization. Moreover, it assures that the level of needs are the basic push for each individual to participate to the organizations’ activities and the staff will have any ideas to change their work but they focus on the achievement to be successful as the goals set. To apply this theory to the organization has to consider the principles of creating motivation, which is, any need which is responded will not cause the motivation of behaviors anymore. Therefore, if it is necessary to motivate the upper level, therefore it will be able to motivate until it changes the behaviors.

2. McClelland's Needs Theory: The mentioned theory focuses on the explanation of motivation of the person who do things to acquire the success' needs without hoping the rewards from what he or she does. The need of success in terms of operation means the needs to work the best and successful as intended. When a person is successful in doing something, he or she will be motivated to do other things successfully further. If any organization has the employees who intend to be successful and have high achievement motivation, the organization will be progress and quickly grow. The components of McClelland's Needs Theory are as follows:

1. Need for Achievement (nAch); this is the need which will be done fully and the best to achieve the success. According to the research of McClelland, it is found that the persons who need high success (nAch) like competition and want challenge work, as well as preferring the feedback information for self-evaluation. Moreover, they are skillful in planning and have high responsibility to encounter the failures.

2. Need for Affiliation (nAff); this is the needs to be accepted by other persons. These persons of this group need the good relation from other persons who need high relationship and they prefer the situations of collaboration to the competition. They will try to create and keep good relationship towards others.

3. Need for power (nPower); this is the needs of power to influence over others. The persons who need high power will seek for the ways to make them have the influence over others and need admiration and acceptance by others. Moreover, they need leadership and need to work better than others. They usually feel and worried about power more than effective operation.

3. Vroom Expectancy Theory: Victor H.Vroom is the psychiatrist in the Cognitive Psychology group. The research is about the operation of people in the industrial industries and the creation of expectancy theory in 1964. Although the explanation in this theory is still not complete, it can be considered as the crucial origin which causes other numerous researches to be occurred continuously in terms of the motivation on working through the workers in the industrial factories. The psychiatrists who study in this Cognitive Psychology believe in the individual's concepts that it is the crucial parts of motivation towards the behaviors or actions. Although there are the rewards or other external motivation involved, the crucial

factors which cause motivation is the thought of individual. Some psychiatrists in this group study the plan and some study the goal setting, but for Vroom, he focuses on expectancy (Adisak Tisanont, 2011).

The explanation of Vroom can be emphasized in 2 items including the values of working that what people expect from working. For example, to work well in order to get the higher salary or some persons hope to be admiration. Money and admiration are called values. Moreover, motivation is also focused on which will be determined its orientation of actions in order to get the results according to the own values, which is, the persons will expect that they will get the results in accordance with the values, it is the motivation to let the persons use their efforts to do something until successful. The success of work is caused by the efforts plus the own ability. According to the explanation, several people realize that Vroom emphasizes external motivation, which is, the rewards of admiration, higher salaries, etc. However, if it is viewed as the Cognitive Psychology, it is said that the expectancy is the concepts of persons which are the crucial keys of motivation.

The study of Vroom can be considered as the beginning of research in terms of work motivation. The interesting example was occurred in 1976 when Galbrate and Kamming used their methods to study the operation of workers in the machine industry. It was found that the successful workers had both internal and external motivations which included rewards or higher compensation considered as external motivation and for the internal motivation it was satisfaction feeling to be successful. In the same year, the researcher named Lawler and Potter used the method of Vroom to study the samples who were the personal manager in the organization. It was found that the factors affecting the work success additionally from Vroom's study included 2 factors, which were, the effort and competency. When both of them are combined, they can help the work easier successful. However, Lawler and Potter found that the factors affecting the success of workers included effort, competency and recognition of roles. The persons who recognize their own roles which include the understanding of their own duties, this will be the part of motivation which leads to the success. Moreover still give the suggestions through their study that the giving reward to the persons who do good actions should be in accordance with the effort of the persons who have invested in their work.

The concepts appeared in the Vroom's theory can be concluded that the motivation of individuals' operation is caused by the concepts of individuals in terms of expectancy setting for the things done. The expectancy is usually in accordance with their own values which make the persons try to do successfully. If the things they are trying in accordance with their abilities, it will become the intensive motivation for the persons. Moreover, the continuously educational results of Vroom support the concepts mentioned above. Moreover, it can be concluded that the persons do understand the roles of themselves about their work. Therefore, it can be seen that the ways of motivation creation for the persons who are working is about the creation of expectancy, realization of values towards work, the use of effort to enhance the ability to work and the help of persons make them understand their own roles in each kind of work.

4. Herzberg's Two-Factor Theory: Frederick Herzberg views that the satisfaction of operation in the organization did not have only one dimension. He surveyed the data of the interview with 200 engineers and accountants about the satisfaction and dissatisfaction of operation and things caused the satisfaction and dissatisfaction in the organization, the study result made Herzberg be able to bring the conclusions to become the theory of administration of human behaviors in the organization which were very famous, which were the Herzberg's two-factor theory. The basic principles of this theory is about the explanation which affects the results of work satisfaction and the organization of employees with the factors enhancing the motivation for employees to be effective in terms of higher operation and higher work satisfaction. This includes as follows:

1. Achievement; this means the success and completeness of work, the ability to solve the problems, realization of the contributions, clearness of work which is the success measured by the operation according to the goals as set by time, the ability of problem solving from operation and satisfaction in terms of operational results.

2. Recognition; it means the acceptance or agreement to the success, getting admiration, praise, credibility, trust of contributions or operation from the commanders, colleagues, subordinators and other persons. If the persons are not admired, they will not accept the complaints or punishment.

3. Work itself; it means the regular actions of work, or flexibility. It can be creative no matter what it is easy or difficult but it not boring task, the task enhance the creativity, worthy, as well as being able to operate completely or it can be finished within a short time.

4. Responsibility; it means the self-rank of work, intention, consciousness of power, duty and responsibility, as well as the freedom of operation.

5. Advancement; it means the results or view of change in personal condition, or position in the work place, opportunity to be promoted, or the higher level of position and the opportunity to be promoted at the higher level, the opportunity to be developed the knowledge and competency, increased skills in profession, as well as the opportunity of further study, training and study visit.

Table 2.1 Comparison of Advantages and Disadvantages of the Satisfaction Theory.

Satisfaction Theory	Advantages	Disadvantages
1. The Maslow's Hierarchical Theory of Motivation consists of 5 factors which include: 1. The need of successful life 2. The need of admiration 3. The need of society and love 4. The need of safety and security 5. The physical need	- Perceive the personal motivation and can analyze the needs. - Know how to conduct to create the motivation in accordance with the personal needs	- Such view is in a type of individuality which focuses on oneself more than society. The need of acceptance and social group will be more important than freedom need and self-expression, namely, the Maslow's Hierarchical Theory of Motivation cannot be used with everyone. Moreover, the needs of people in current situation are not in accordance with the steps of Maslow’s Theory.

Table 2.1 Comparison of Advantages and Disadvantages of the Satisfaction Theory. (Cont.)

Satisfaction Theory	Advantages	Disadvantages
2. McClelland's acquired – needs Theory consists of 3 factors as follows: 2.1 The need of success 2.2 The need of power 2.3 The need of attachment	- Know the basic needs of human are easy for organizing the training to be in accordance with the needs for motivating the person who needs to self-develop to that need. This may be the outstanding characteristics of that person. Moreover, it may be in accordance with the goal set by the organization. If the motivation is done well, it will help increase the work effectiveness.	- The thing to be careful is that the person likes working too much difficult which may cause unsuccess fulness according to the goal set.
3. Expectancy Theory of Vroom consists of 4 factors which include: 1. Expectancy 2. Satisfaction 3. Result 4. Medium	- Create the expectancy which is believed that it will acquire the work success and direct to the desire of the result got from working. This is considered as the thing which determines the personal motivation.	- Expectancy will become the motivation when the behaviors expressed are not exceeded from the self-ability.

Table 2.1 Comparison of Advantages and Disadvantages of the Satisfaction Theory. (Cont.)

Satisfaction Theory	Advantages	Disadvantages
4. Herzberg's Theory of Motivation consists of 2 factors which include: 1. Motivation 2. Support	- Be the theory which persons to prefer and love the practical work, this can motivate the satisfaction to the persons in the organization to operate effectively. - Be the factors which are able to respond the needs within the organization.	- Be the theory applicable position; or to be used with female employees at the level

2.4 Concept and Theory of Information Technology Acceptance

Information technology acceptance is about the persons who make a decision to apply the innovation or technology effectively. The researchers and scholars of information technology program and communication program try to develop and find the concept of model which is able to explain and predict the behaviors of technology acceptance from the users. This is because if it is understood or predicted the technological acceptance in an individual level, it will be beneficial to the invention, development, and application of new technology through the users. Therefore, there are the persons who have discovered the concepts about the information technology acceptance, which is, the simulation model of technology acceptance which is developed by the concept and acknowledgement of self-competence by the acknowledgment of easiness of use and acknowledgement of self-competency. The model of information technology acceptance applied for the study of

human behaviors for accepting the technology is as follows: (Suttiluck Chanasuk, et.al., 2012).

2.4.1 Concept and theory of reasoned action (TRA)

Fishbein and Ajzen propose the Theory of reasoned action (TRA). This theory is one of the Social Psychology Theory which is applied as the basis of human behavioral study. The theory explains the relationship between the belief and attitudes towards the behaviors that the human behavioral change is resulted by the change of belief. The persons will act the behaviors because it is they think that it is suitable to do so since the persons will always consider the reasons before the action, then they adapt the principles from the TRA theory to study the acknowledgement of technological use of each individual. According to the principles of the TRA theory, although the individual behavior is caused by the individual decision making, the factors determined the direct behavioral indicator include as follows: (Singha Chaweesuk, 2012).

1. Behavioral aspect; this is the conduction or expression of the person under the behavioral intention.

2. Behavioral intention; this is the determination of objectives to express the behaviors. The intention to express the behaviors is being pushed by 2 factors including the attitudes towards the behavior and subjective norm.

3. Attitude toward the behavioral aspect; this is the feeling towards the behaviors which will be done. This is the decision making whether the action is good or bad. This can be measured by 2 factors, which are, belief about the results of actions on behaviors which have to be occurred certainly, and the evaluation of results from the evaluation of outcomes.

4. Subjective norms; this is the form of belief which is standard or it is called the norm towards the individual behaviors they express. It can be measured by 2 factors which include the normative beliefs, and the motivation to comply.

5. External variables; this includes the demographic variables, attitudes toward targets, and characteristics, properties of personality traits which affects the belief about the results of action on the behaviors which will be happened surely, evaluation of outcomes, normative beliefs, and motivation to comply as the Figure 2.

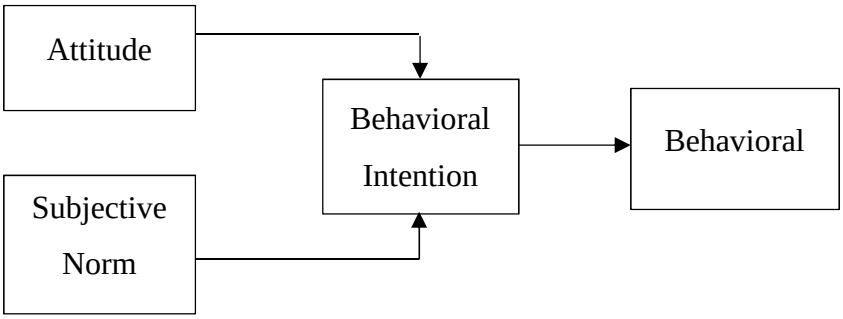


Figure 2.9 Theory of Reasoned Action (Fishbein and Ajzen, 1975)

According to the figure, it can be explained that the attitudes affect the behaviors. For the factors happened within the individuals, the person will evaluate the whole images of behaviors from the credibility which will be sequenced, no matter what positive or negative feelings about the behavioral expression. The persons who evaluate the behaviors and believe the positive results, the person will have bad attitudes towards the behaviors.

The norms of individuals around the behaviors refer to the acknowledgement of each person about the expectation or needs of the individual groups in the society. This is important for the person to express or not express any behaviors which can be considered as the motivation for each individual to follow according to the needs of individual group in society especially the closed person groups, such as the persons in family, colleagues who need the persons to express the one of the behaviors.

However, TRA is still limited because it expresses the behavior of each individual and it cannot be happened in real situations if the behaviors are complex and difficult more than each person can control, therefore it will affect the TRA theory to be developed and become the theory of planned behavior of TPB.

2.4.2 Concept and Theory of Planned Behavior (TPB)

Ajzen proposes the Theory of planned behavior (TPB) which is in a type of social psychology theory developed by the TRA theory by Ajzen. It increases the acknowledgment factors about the control of self-behaviors or perceived behavioral control to reduce the limitation of TRA theory and can be applied to study the

intention and behaviors in the various contexts as well as being able to create the understanding of acceptance on technological use of each person. The principles of TPB will study about the individual behaviors which is pushed from the intention to express the behaviors by the factors influencing the intention to express that behaviors which consist of 3 main factors as follows: (Singha Chaweesuk, 2012)

1. Attitude toward the behavioral; this is the evaluation in a positive and negative evaluation of individuals towards the actions. It means the evaluation of persons that if actions are positive or negative ways. This is the overall feelings of the persons in supporting or protesting that action. It can be said that if the persons have the good attitudes towards the behaviors much, they should have the strong attitudes to do those behaviors. If the persons have bad attitudes towards those behaviors much, they should be strong not to do those behaviors.

2. To comply with the reference group; it means the perception of the persons that other persons who are important for them need them to do or not to do those behaviors. This perception can be direct or indirect to the truth. If the persons realize that other persons who are important for them think that they should do those behaviors, the persons tend to do those behaviors. Vice versa, if the persons perceive that the important persons for them think that they should not do those behaviors, the persons tend to not to do those behaviors. To measure for complying with the reference group has to be certain in terms of actions, objectives, time, and contexts which are in accordance with behaviors and intentions.

3. Perceived behavioral control; this means the perception of persons that if it is difficult or easy to do those behaviors. This is the reflection from the past experiences, prediction, factors supporting and factors obstruct or become the obstacles by considering the possibilities from the perception results of behavioral control towards the achievement of goals of behaviors. The perception of behavioral control will be variable according to the situations and actions.

The individual norms around the behaviors and the perception of self-behavioral control for expressing any behavior and relationship between the factors according to the mentioned theory can be shown in the form of models as the figure 2.10

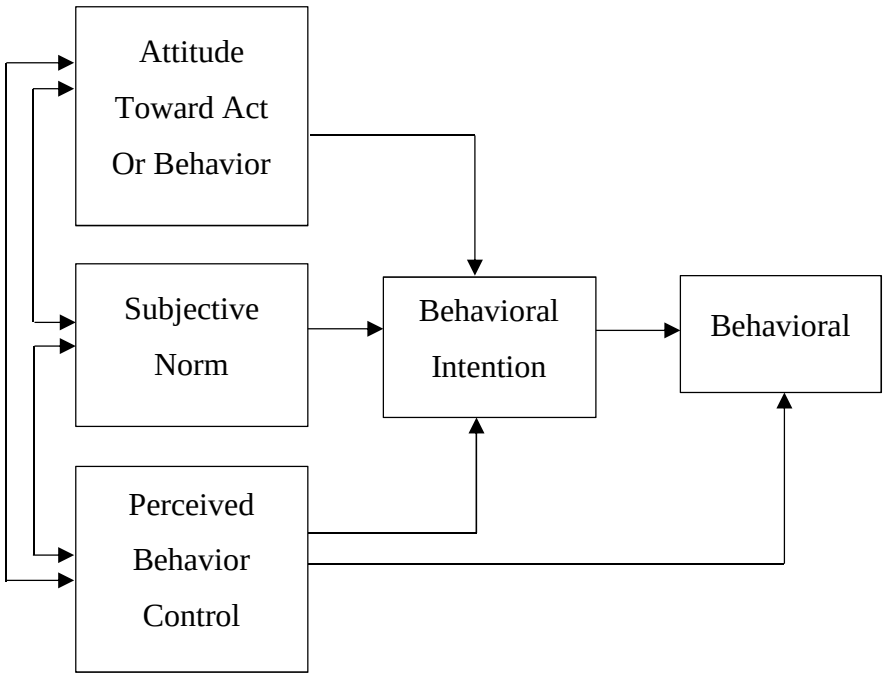


Figure 2.10 Theory of Planned Behavior (Ajzen, 1985)

According to the figure, it can be explained that the relationship between the intention or behaviors are received by the influence of attitudes affecting the behaviors of individual norms around the behaviors and perception the self-behavioral control for expressing any behaviors influenced directly through the behaviors. The perception of the self-behavioral control is about the perception of the difficulty or easiness of behavioral expression. If the person acknowledges that they have ability to express the behaviors in that situation and can control the behaviors to cause the results as needed, the mentioned persons tend to express the behaviors.

Moreover, Ajzen believes that the persons have an effort to control various factors both internal and external factors. The internal factors, such as the knowledge and ability of each individual, and the external factor such as the conditions of facilities of use, the perception factors to the self-behavioral control in expressing any behaviors will be determined by the individual's belief towards the factors which may encourage or obstruct those behaviors, and the perception of power by the mentioned factors affecting the efficacy which enables the persons to be able to express the behaviors. However, the TPB has some limits which cause TPB to explain the attitudes and behaviors with some errors, such as the limits caused by the

contradictions between the intention to express the behaviors of each individual and real behaviors when the time passes and then it leads to the theory development of technology acceptance model or TAM (Wasan Champapang, 2010).

2.4.3 Model of PC Utilization or MPCU

MPCU is the Theory Model of Utility on personal computer developed by the model of theory on inter-personal behaviors of Triantis used to study the human's behaviors. This theory is appropriate to be used to predict the acceptance of news and information technology use of each individual. Thompson et.al, used the MPCU Model to predict the use behaviors more than studied and described the intention. For MPCU Principles, they consist of:

1.1 The use of personal computer which got drive from the consequent results in the long terms.

1.2 The competency of Information System believed by each individual that the Information System use will be able to increase the work effectiveness.

1.3 That innovation is difficult or easy for the use.

1.4 The use results which affect the feeling of enjoyment, appreciation, fear or dissatisfaction.

1.5 Social factors which are the relationship among the persons which express the cultures and treat to each other in each social situations.

1.6 Facility states for use

The mentioned factors encourage the easiness of operation, such as preparation of support system on computer equipment and relationships among factors according to the MPCU Theory. (Pattravadee Wongsumet, 2013)

2.4.4 Combined-TAM-TPB

Combined-TAM-TPB is the mixed theory between TAM and TPB. Taylor and Todde developed and added the TAM Theory by mixing the norm of persons around the behavioral expression and perception of the self-behavioral control of for expressing any behavior from TPB Theory together with the element factors of TAM to be able to keep the complicated data more by using the perception of self-behavioral control for expressing any behavior which indicates the obstructions of use, such as

skills limit of each individual and use the norms of persons around of any behavioral expression to identify the opinions of personal group in the society which may be important for the users in the future. (Pattravadee Wongsumet, 2013)

2.4.5 Unified Theory of Acceptance and Use of Technology: UTAUT

UTAUT is the total theories of acceptance and use of technology caused by the synthesis of acceptance theory group and use of technology for 8 theories which include TRA, TPB, TAM, MPCU, DOI, MM, SCT, and C-TAM-TPB proposed by Venkatesh et.al.,. The principles of UTAUT theory, which is the study of use behaviors driven by the intention to express the behaviors by factors affecting the intention of behavioral expression which consists of 3 main factors including Performance expectancy, Effort expectancy, and Social influence. Whereas the use facilities have direct relationships with the use behaviors for the supplementary variables for 4 variables including gender, age, experience, and use voluntary. (Pattravadee Wongsumet, 2013)

2.4.6 Concept and Theory of Technology Acceptance Model (TAM)

The acceptance of information technology of the users is important. Moreover the study of acceptance on information technology has been existed for more than 2 decades. Although there are a lot of models proposed to explain and predict the system use, the model of TAM (Technology acceptance Model) is the model accepted the most for the study of intention among the intention of system use by the users (Chuttur, 2009).

The TAM model or Technology acceptance Model is the accepted and famous theory which can be the indicator for the success of technological use which is developed by the social psychological theory. The theory of reasoned action of Ajzen and Fishbein by Davis in 1989 which has been developed by the theory of reasoned action or TRA which explains that the social behaviors of human are not done by the motivation causes which lack of consciousness or lack of the thought to co-decision making in terms of a behavior. However, a behavior will be determined by the intention to do the behavior. If the behavior can be predicted the intention, it can

predict the behaviors more accurate. The intention and standard of each individual sometimes it can be interpreted as the compliance of the reference group for doing the behaviors. In general, the persons will intend to express the behavior when it is evaluated that the behavior is positive and that person realizes the importance that it should be expressed the behaviors, when the attitudes and norms of persons are concordant, the intention of behaviors will be happened, TRA therefore is the theory explained and predicted the behaviors of person in the certain situations (Singha Chweesuk, 2012).

TAM is the model developed to apply in the acceptance of information technology system without bringing the individual norms existing around to express the behaviors to be used as the factors of behavioral prediction of the use in the real situation. Davis develops TAM without including the attitudes towards the behaviors to enable for explaining the intention elaborately. Moreover, this can be used to predict the acceptance of using the information technology of each individual.

Fred (1989) proposes the Technology Acceptance Model which is the part of the Doctoral research when he was studying at the MIT Sloan of Management. He proposed that the system use is the response which can explain or predict the motivation of users which are the direct influence by the external actions consisting of the characteristics of real system and ability of system as the Figure 2.11

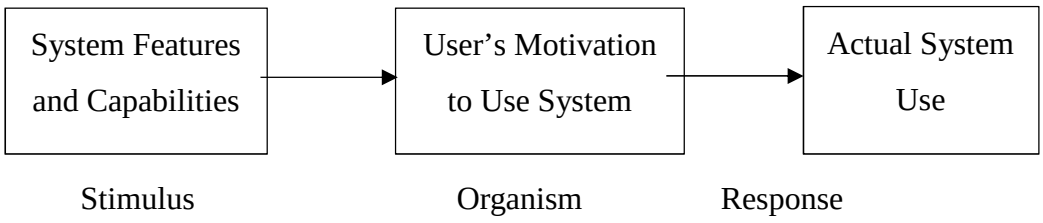


Figure 2.11 Fred Davis's concept (Davis, 1989)

Then, Fred Davis studied the involved researches with the type of concept and studied the research of Ajzen and Fishbein who discovers the theory of reason actions. According to the study, Fred Davis proposes the model of technological acceptance as the Figure 2.12

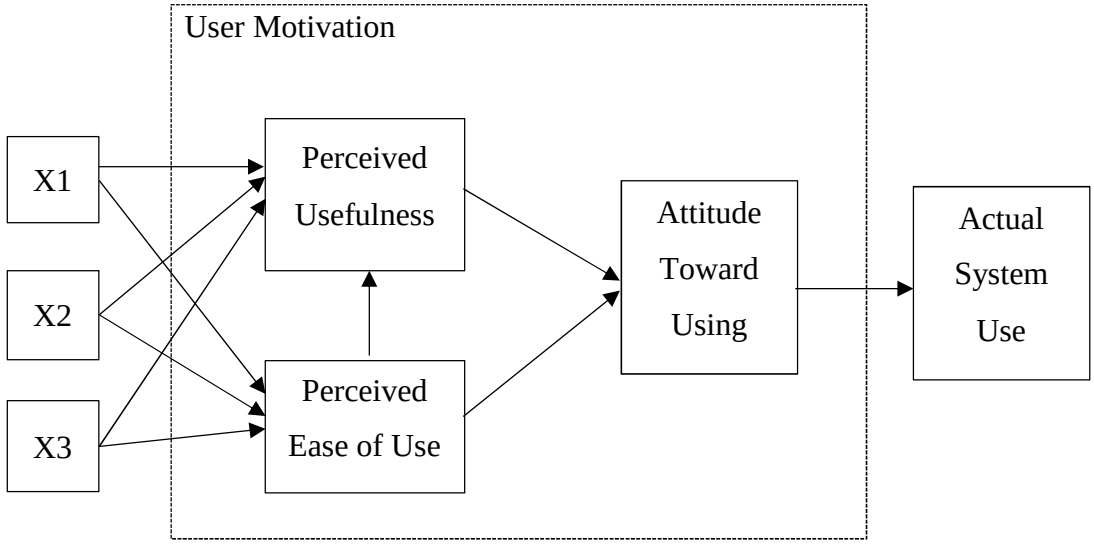


Figure 2.12 Fred Davis's Technology Acceptance Model (Davis, 1989)

According to the figure above, Fred Davis proposes that the motivation of uses can be explained by 3 factors which include the Perceived Ease of Use, Perceived Usefulness and the attitude toward using. The assumption is that the attitudes of the users about the system influence the users system which will said that the users will use or reject to use the variable system considered by the factors influenced by the use or rejection of users system, which is, the easiness of use and perception that is easy for the use and it influences directly through the perception it is useful and 2 variables are assumed the as the assumption which has the direct experiences with the system replaced by x1, x2 and x3. After that, the later education, Fred Davis improves the model by increasing other variables and adjusts the relationship until the TAM is developed as the main model for explaining and predicting the system use which TAM becomes famous and be referred to the involved researches with the acceptance of technology widespread. Today, the research study about the acceptance of technology is still continuous and the access of model for acceptance on technology is really necessary which should be studied by the researchers to make understanding about the acceptance of technology on users for being used in the involved study and the perception of easiness for use.

According to the research of Fred Davis, it can be concluded that most of people use or do not use the system depends on the belief that whether the system can

help the work better or not. This is the same as the belief about system which affects directly towards the behaviors of system use. Fred Davis gives the definition officially as follows: (Sek Chanprasert referred in Sasiporn Meaunsrichai, 2012).

1. Perceived Usefulness; this is the level of belief of each individual that using the system helps increase the effectiveness of work.

2. Perceived Ease of Use; this is the level expected by the users through the system that the use of system can be used easily.

Later, in 1993 Fred Davis proposed the perception that it is influenced directly towards the real use. Moreover, it was found that the characteristics of system would influence directly towards the system use as the Figure 2.13

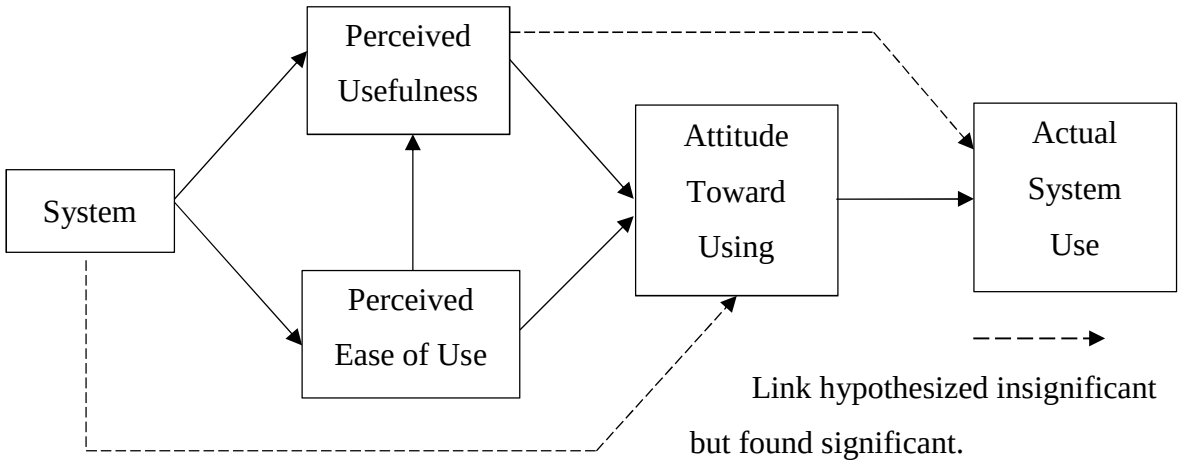


Figure 2.13 New relationships in TAM (Davis, 1993)

The later study of TAM has the increase of intention behaviors to become the new variable which influences the perception that it is beneficial. Fred Davis proposes that when the users perceive that the system is beneficial, it will cause the behaviors of intention without depending on any attitudes so that the model can be developed and improved in terms of the acceptance of technology to be tighter as shown in the Figure 2.14

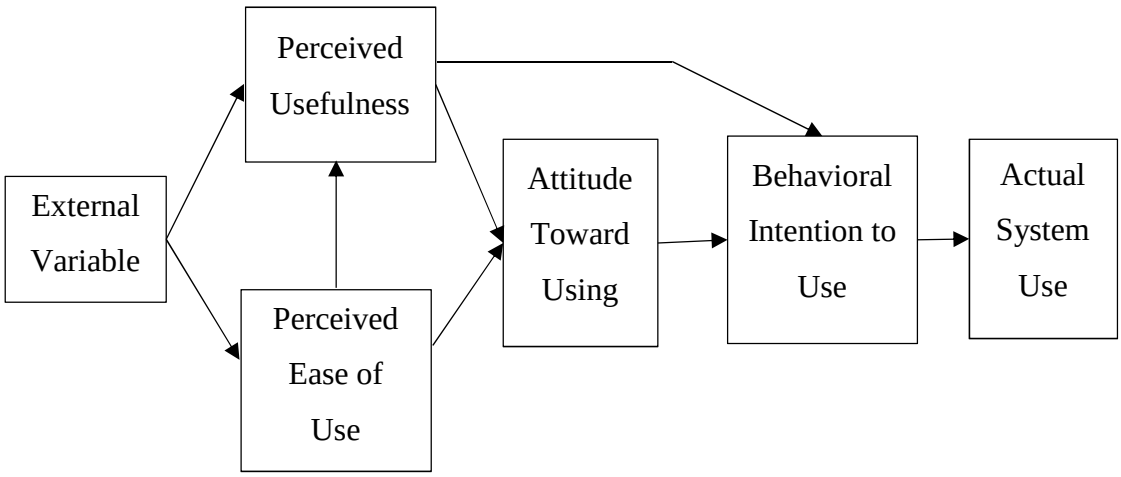


Figure 2.14 New format TAM (Davis, 1993)

According to the figure, the external variables such as the demographic data and previous experience influences the perception of the benefits which will get from the information technology and the perception that it is the system easy to be used. The perception of benefits got from the information technology is the factors determining the perception in each individual that how the information technology is a part to develop the effectiveness of work operation and the factors affecting directly towards the intention to express the use behaviors by acknowledging that it is the system easy for use can be considered as the factor determining the quantity or success got which is direct the needs or as expected. This is the factors affecting the results of perception towards the benefits got from the information technology by the attitudes towards use is influenced by the perception of benefits from the information technology and the perception that it is the system easy to use. While the intention to express the use behaviors get influence from the attitudes towards the usage and perception got from the information technology and it will affect the results which will be accepted for the real use.

Later Bagozzi and Warshaw (1989) brought the model to study in the long run with 107 users. The research results found that the perception was beneficial and it is easy to use. Moreover, it is influenced directly towards the intention behaviors unnecessary to have the attitudes as the Figure 2.15

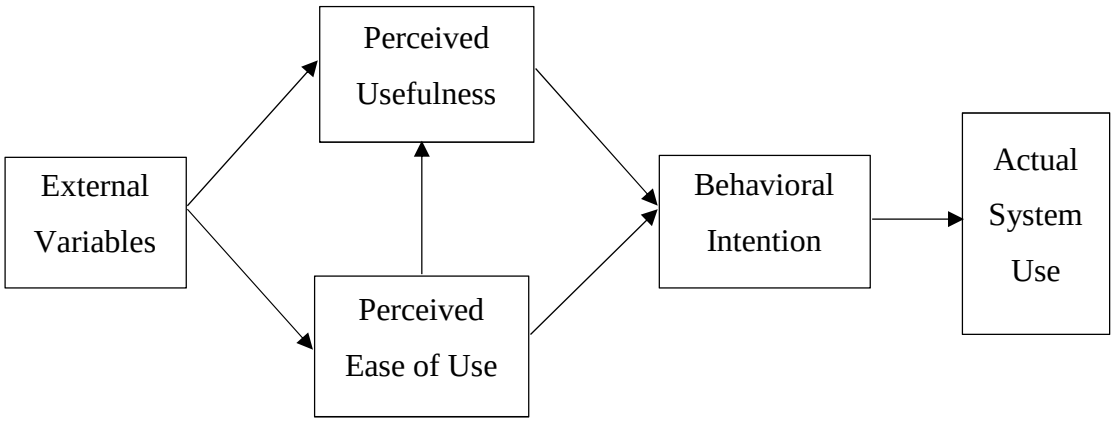


Figure 2.15 Bagozzi and Warshaw's TAM (1989)

According to the figure above, there is the use of variable in terms of attitudes cut off explained directly to the characteristics of the system towards the variables of attitudes additional from the original model of the technology acceptance.

2.4.7 Concept and Technology Acceptance Model 2 (TAM2)

The TAM2 or Technology acceptance Model 2 is developed and expanded additionally from the TAM or Technology acceptance Model to help predict the behaviors of information technology system sue to be more clearly (Venkatesh and Davis, 2000).

The model of TAM2 improves the external variables and the antecedent factors affecting the perception that it is beneficial from the information technology and the perception that it is easy for use and more modern. Moreover, the research found that the social influence process which includes the subjective norm, voluntariness, image as well as the cognitive instrumental process) is the job relevance, output quality, results demonstrability and perception that it is the system easy for use or perceived ease of use which is the factors facilitate the acceptance of new technology.

Moreover, TAM2 proposes the new concept that the norms of individual around of the individual behavior which is the main factor determined the intention of use and it influences the perception that it is beneficial from the information technology and positive image. For the effects of variables, it is originated together

with and linked between the norms of individual around the behavior expression and intention to use. The factors which occur first include the relationship with the work, quality of results which is able to express and seen first influences the perception of benefits received by the information technology in a positive way. Moreover, it is found that under the condition of use by forcing and the users have the limited experiences of the existed people around for behavior expression and it will influence the intention in a positive way as the Figure 2.16

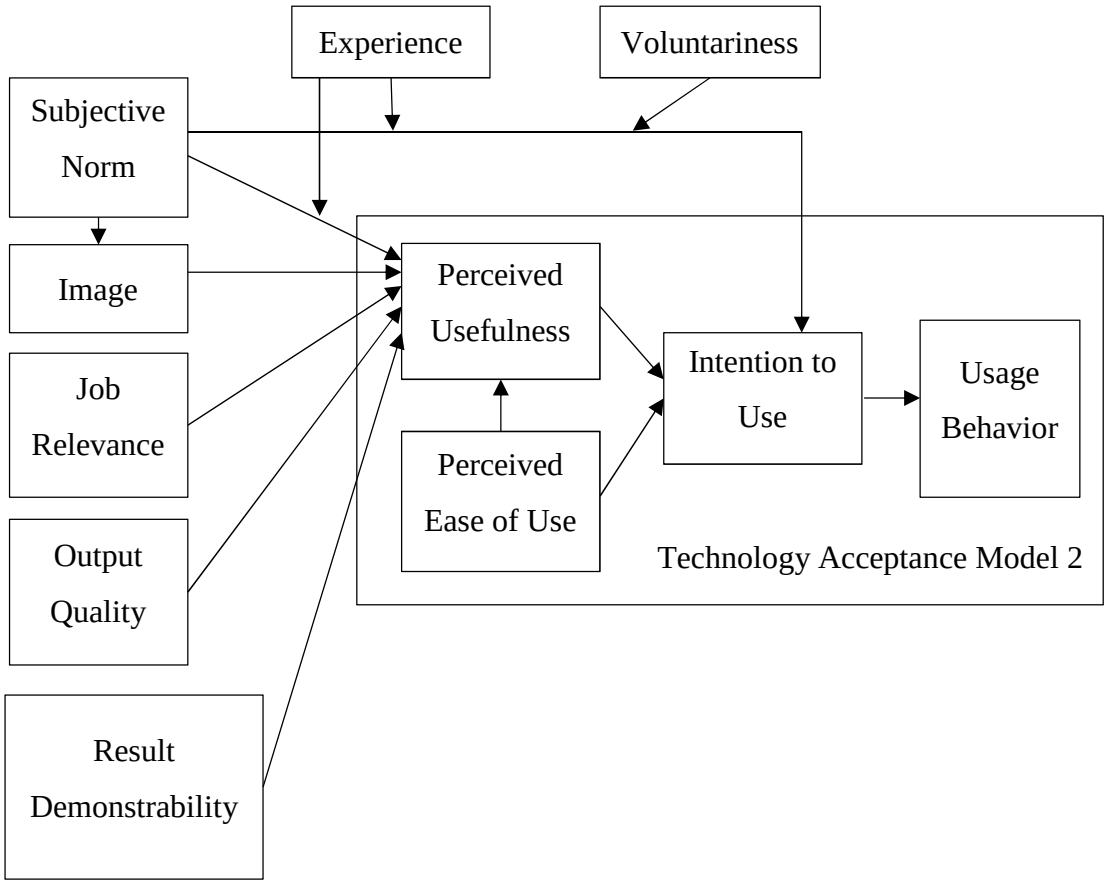


Figure 2.16 Technology Acceptance Model2 (Jureeporn Thongthawai, 2012 Reference from Venkatesh and Davis, 2000)

According to the figure above, the TAM 2 is improved at the external variables and antecedents factors influencing the perception of benefits received by the information technology. The perception is the system easy to use and more modern. According to the research, it was found that the social influence process, such as the

norms of individuals around expressed the behaviors of untariness, image as cognitive instrumental process, such as job relevance and output quality. The results which can be seen before about results demonstrability and the perception that it is the system easy to sue and it is the factors facilitate the acceptance of new technology.

Moreover, TAM 2 proposes the new concepts that the norms of individuals around expresses the behaviors is the main factor to determine the intention to use and influences the benefits got from the information technology and positive image for the effects or the moderating variable or experiences and voluntariness to occur together and link between the norms of individuals around the behavior expression and intention to use. Moreover, it was found that the intention to use as overall image, the factors originated first had the relationship with the quality of results and results which is able to see before influences the perception about the benefits got from the information technology in a positive way and it is found that under the condition of use by forcing and the users had the experiences limited to the norms of individual around the behaviors which will be affect the intention to use in a positive way.

Later there is the creation of the group for perception of easiness to use. The first group is Anchors; this will be considered as the general belief about the computer. The use of computer in the group 2 and the 2nd computer is the adjustment this is considered about the belief on the basis of direct experiences about the objective system as the Figures 2.17

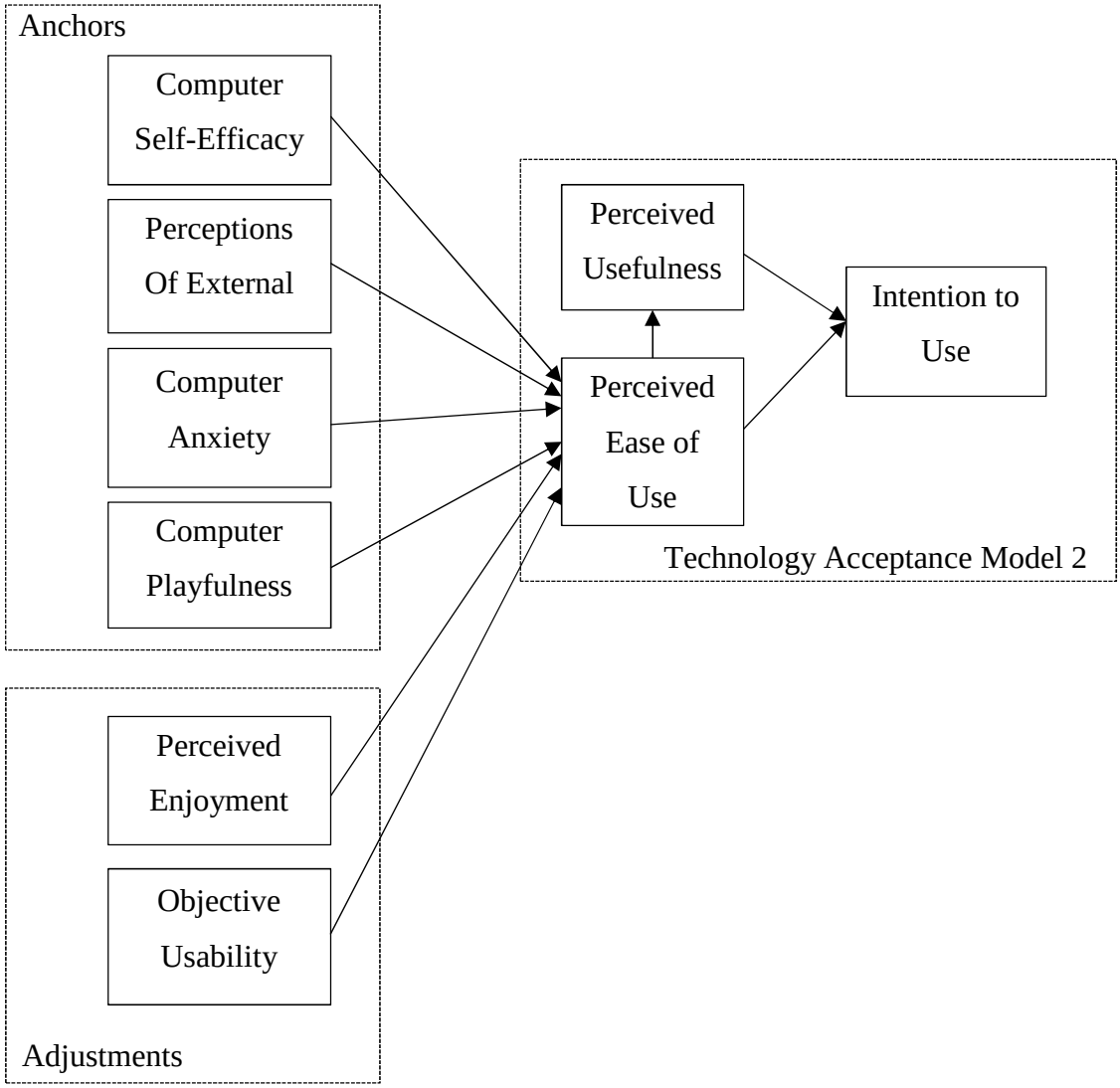


Figure 2.17 Perceived Ease of User (Venkatesh and Davis, 2000)

The model of TAM is used to be applied in terms of various works such as the perception of information technology and bringing of information technology system. The past research in terms of TAM, most of them is related to the use of computer or software application involved such as Word processing, e-mail, information technology system of hospital. Today, the development of internet and computer basic technology, TAM application is expanded in various terms such as e-commerce, Telemedicine, e-Learning and digital library system (Holden and Karsh, 2010).

According to the Technology Acceptance Model it can be concluded that TAM is the prediction or explanation of the users which TAM is the simulation model which is credible for predicting of using the technology and simulation model proposed the information about the new technology, the factors affecting the decision making about time and ways for technological use. This consists of 2 factors including:

1. Perceived Usefulness; this is the perception about the acceptance of benefits got. The perception about the benefits are limited by Fred that the belief level will increase the effectiveness of operation.

2. Perceived Ease of User is the perception of easiness of use. Fred gives the definition that the use does not want effort of use which means the easy use.

Table 2.2 Comparison Theory of Information Technology Acceptance.

Theory	Inventor	Descriptive
Concept and theory of reasoned action (TRA)	Fishbein and Ajzen (1975)	This is the theory mentioned about the general behaviors of human that all acts of human are originated reasons and information use for making decision to do or not to do something. Hence, the prediction of human behaviors has to consider the related factors or factors affecting the human's decision making. The factors affecting the behaviors of each individual are Behavioral Intention which is affected or pushed by attitudes and Subjective Norm.
Concept and Theory of Planned Behavior (TPB)	Ajzen (1985)	This is the theory developed and extended by TRA's concept by increasing the Perceived Self-Behavioral Control to express any

Table 2.2 Comparison Theory of Information Technology Acceptance. (Cont.)

Theory	Inventor	Descriptive
		behaviors. The factors affecting the Behavioral Intention included Attitude, Subjective Norm, and Perceived Self-Behavior Control in expressing any behaviors.
Concept and Theory of Technology acceptance Model (TAM)	Davis, Bagozzi and Warshaw (1989)	It is the theory developed by the concept of TRA. TAM emphasizes the study about various factors affecting the acceptance or decision to use the new technology or innovation. The major factors which affect directly to the acceptance of technology or innovation of the users include Perceived Ease of Use and Perceived Usefulness and factors affecting the use behavioral intention for technological use included 4 factors; External Variables, PEOU, PU, and Attitude. Finally, the behavioral intention of technological use will affect the acceptance and use of that technology.
Technology acceptance Model 2 (TAM 2)	Viswanath Venkatesh and Fred D. Davis (2000)	The model is adjusted by TAM. TAM 2 emphasizes the various factors affecting the acceptance or decision making to use the new

Table 2.2 Comparison Theory of Information Technology Acceptance. (Cont.)

Theory	Inventor	Descriptive
		technology or innovation by not bringing the attitudes which the users have through the system or new innovation to be co-analyzed.
The Model of PC Utilization - MPCU	Ronald L. Thompson, Christopher A. Higgins, and Jane M. Howell (1991)	This is the theory used to study in the context of information system to predict the behaviors of personal computer use more than to intend to study and describe the behavioral intention of the users.
A Model Combining the Technology Accpetance Model and the Theory of Planned Behavior – C-TAM-TPB	Shirley Taylor and Peter Todde (1995)	The theory is developed and extended from TAM by mixing 2 factors from TPB which include own SN and PBC to express any behaviors to be in accordance with the factors which are the components of TAM.
The Unified Theory of Acceptance and Use of Technology - UTAUT	Viswanath Venkatesh, Michael G. Morris, Gordon B. Davis and Fred D. Davis (2003)	This is the theory originated by synthesis of acceptance theory group and technological use for 8 theories which include TRA, TPB, TAM, MPCU,DOI, MM, SCT, and C-TAM-TPB in order to find the combination which will lead to the development of acceptance model and technological use of each individual under the total theories which can express the outstanding

Table 2.2 Comparison Theory of Information Technology Acceptance. (Cont.)

Theory	Inventor	Descriptive
		of relationship between various factors which ever appeared in the Model or all 8 theories mentioned above.

2.5 Related Research

According to the related research, it was found that there is the study about the information technology acceptance as follows:

Pantipa Aedam (2006) studied about the acceptance of information technology of the civil servants of Office of the Permanent Secretary to study about the levels and factors related to the acceptance of information technology of operation among the civil servant of the Office of the Permanent Secretary. The research results found that the acceptance of information technology for operation among the civil servants of Office of the Permanent Secretary as overall image, the civil servants accepted at the high level. For the benefits from information technology aspect, application aspect, policy of Office of the Permanent Secretary, environments of information technology, respectively and for the factors affecting the relationship of acceptance on information technology in practical ways of the civil servants of the Office of the Permanent Secretary classified by the place of operation, age, level, position, research education, responsible work, these are no relationship with the acceptance of the information technology but the experience of training in terms of computer of benefits use from information technology had the relationship between the acceptance of information technology and the skills of computer knowledge and the benefits from information technology and environments of information technology had the relationship with the acceptance of information technology by statistical significance at .05 level.

Wasan Jampapaeng (2010) studied the acceptance of information technology in the government sectors, the case study of bringing the ERP system to be used in the work of EGAT. The purposes of this research was to study the factors

affecting the acceptance of ERP system to be used as the ways or policies in creating the acceptance in the ERP system, or it is bringing the system of information technology to be applied to the government sectors to be effective and successful. The research results found that the perception of easiness of use, perception of the benefits, attitudes towards the use of ERP system, factors of organization, labor factors and technology factors, these are the technology affecting the acceptance of the ERP system. And it has to consider the factors affecting the demography which refers to gender and line of users.

Nattapong Somsoros (2010) studied about the acceptance of information technology and communication of personnel of the Custom Bureau 4, Nonthaburi province according to the process of decision making about the acceptance of technology 5 steps which include the informed, interested, evaluate, try out and acceptance. The research result found that the Custom Bureau 4 had the level of acceptance for information technology and the communication in overall is at the high level. When considering the acceptance of information technology and communication according to the process of decision making to accept the 5 steps of technology, it was found that it is at the high level for all 5 steps. Moreover, the comparison results of information technology and communication can be categorized according to the status of person, it was found that the personnel who have the educational level and work age is different. There is the acceptance of information technology and communication differently by statistical significance at .05 levels. For the personnel who had different gender and age had the acceptance of information technology and communication not different by statistical significance at .05 levels.

Phra Wittaya Kongprab (2010) studied about the acceptance of basic information technology of teacher staff of Phra Pariyattham School, general education department for the 1st group, under the Office of National Buddhism to study the acceptance of information technology and to compare the acceptance of basic information technology according to the personal characteristics. The research results found that the acceptance of information technology, the basis of teacher staff of Phra Pariyattham School, general education department for the 1st group under the Office of National Buddhism in terms of perception of easiness of use, this is at the moderate level. In terms of the perception of benefits was at the high level. Moreover, it was

found that age work experience and training experience of information technology, different basis made the level of acceptance on information technology differently be statistical significance at .05 level, especially the perception of easiness when use. And from the perception of benefits, there is no difference by statistical significance at .05 levels.

Siriporn Titalampoon (2010) studied about the acceptance of technology use in terms of customer service by TAM of industry of retails in Thailand to analyze the perception of retails in the acceptance of technology use of customer service by using TAM to propose the form of theory explained the intention of the retail shop for accepting he use of technology of customer service. The research result found that the technology form of customer service had the acceptance with good reasons and the research result can prove the acceptance of retail business of the customers service technology indicated the convenience of system use more than the realization of the acceptance of retail shop including the influence of positive factors such as the organization characteristics, quality of data, as well as the convenience of using the system which got the influence by the positive factors including the characteristics of organization, each organization, and data quality characteristics, quality and service system. For the main model of TAM, the support results to confirm main model and they are regarded as the support of investment in technology of customer service. It is necessary and can increase the efficiency of retail industry in Thailand.

Cataleeya Petchchareanrat (2011) studied the factors of acceptance and use of new intranet system which has the work form base on the Technology Cloud Computing; the Case Study of Thai Beverage Company Limited (Public) to bring the research results to be the suggestions for improving the new technology to be effective and be acceptable and used widespread in the organization. The research result found that the factors affecting the influence of acceptance and use of the new intranet the most, which is the factor of social influence factor this is because it has to stimulate the use by the work chief or employees who will need to use the new technology. If there is the new technology widespread in the colleagues whereas the factors influence the second level, which is the factors in terms of appropriateness between the work and technology, the second is that the expectation on effectiveness because the expectation of effectiveness and since the users understood that the system would

facilitate the news and become the resources of involved data with the organization. The users expect the benefits which will be got and expected the new technology will support the work to be more effective and expected that the new technology can support the work to be more effective. And the last level is that the factors of expectation to try to use the technology use and tried to use them. This is expected that the system has the use form which is easy to understand.

Suttiluck Chanasuk et. Al (2012) studied the acceptance and cultures of information technology and communication in terms of communication in the government organization of Thailand. The research results found that the factors related to and affected the acceptance of ICT use in the government sectors organization which consists of the organizational culture, perception and easiness and ICT application behavior. The ICT culture consists of 5 items including the participation through the electronic system, readiness of ICT work, ICT capacity, consciousness and realization by evaluating the administrators of information technology at the high level. This is viewed that the governmental organization had the ICT cultures in accordance with the same direction with the organizational cultures.

Chureeporn Tongtawai (2012) studied the factors in terms of service quality influencing the acceptance of the employer in the middle and small size enterprises (SMEs), case of the service providers of work system to seek for the factors of quality for service influencing the acceptance for service of development on the work system from the external organization by using the theory of TAM as the instrument to accept the technology which consists of perceived of usefulness and the perceived ease of use and the instrument to measure the quality of service of Yoon and Hyunsuk which consists of 6 dimensions including the reliability, responsiveness, assurance, empathy, process and education. The research results found that the service factors influencing the acceptance of service from external sides to develop the work of service providers of SMEs as overall image which are trust, education and quality assurance. All 3 dimensions had the results both in terms of perception and easiness of external service provider. Moreover, it is found that the employer had the positive attitudes to the service from the external this affects the intention of service in terms of development of external organization in the future.

Bueno and Salmeron (2008) studied the acceptance of ERP technology by using the TAM model to test the factors to the success which affects the ERP application. This is collected to the factors of success from various researches and set the group of factors to the success used for the study including the support of high administrators, communication, collaboration and complex of study including the support of high administrators, communication, collaboration and complex of information technology. The research result found that the factors to the 4 successes affect the results of intention to use the ERP work system.

Vathanophas, et al. (2008) studied the acceptance of technology in terms of e-Government by using the simulation of information technology acceptance to measure the acceptance of internet use from employees of Navy Army to find the relationship between the external factors including 12 factors 1. Last experiences, 2. Levels of education, 3. Relationship with work, 4. Quality of results, 5. Prove of results, 6. Compliance with others, 7. Image, 8. Intention and concentration, 9. Trust, 10. Independence, 11. Training, 12. Support of organization. The research results found that the external factors affecting the perception of employees for the internet use is about the last experiences, relationship with work, intention and independence. Moreover the training and other problems are the crucial factors for acceptance of internet use.

Lin (2010) studied the effects of quality on information technology system both quality of data and quality of system as well s supporting from executives for the ERP system by studying from the big organization in Taiwan. The research result found that the quality of information technology system had both direct and indirect with the use of ERP work system. In terms of perception got from the work system and satisfaction of work. Whereas the support from the executives affect the perception of benefits got from the use of ERP system.

Lee, et al. (2010) studied the effects from the support of the organization towards the behaviors of ERP system use by using the model of technology acceptance. The research result found that the support of the organization is the crucial factors for acknowledging the benefits from use and easiness of work which is affected the behavior of ERP use system.

Sawng (2011) studied the consumers to the acceptance of technology on internet use of mobile phone, Korea. The research results found that the causes of acceptance on technology is originated by the use and benefits from the use. This can divide the benefits into 3 aspects including the economic aspect, mobile service and social service. For economic aspect, the internet use on mobile phone helps save money more than journey. For mobile service, it was found that the service was in accordance with the users' needs. For social aspect, it was found that the use of internet on the mobile phone helped the users have good interaction with the social network because everyone could use the internet equally and similarly.

According to the related research, it was found that the mentioned research was the research of acceptance for the information technology. The study found that the level of acceptance for information technology which had the level of acceptance at the high level. In terms of benefits from information technology and application for operation aspect, while the factors affecting the results of acceptance on information technology, it was found that the factors of perception on easiness of work, benefits and attitudes of system use, these affected the acceptance and behaviors of system use on information technology.

CHAPTER III
RESEARCH METHODOLOGY

The research entitled the use acceptance of annual budget plan system of Department of Industrial Promotion is the study in terms of quantitative research in the form of survey research which uses the questionnaire as the tool for data collection and uses the Technology Acceptance Model 2 (TAM 2) as the conceptual framework for the study. The research methodology done by the researcher is as follows:

3.1 Population and Sample

This study is a survey research type. The population includes 45 persons including the civil servants, government employees and service contract employees who use the annual budget plan system of the Department of Industrial Promotion, annual budget 2014 both central and regional part.

For the calculation to find the sample size used in this research it is calculated from the formula according to the concept of Taro Yamane (1967) by using the reliability level at 95% and determine the error not more than 5%. The formula of calculation is as follows:

$$n = \frac{N}{1+N(e)^2}$$

When N = Size of population used in the study

e = Value of error of the population not more than 0.05 or 5%

n = Size of sample

The error is determined for not more than 5% at the reliability of 95%

According to the mentioned formula it can be calculated to find the size of sample as follows:

$$n = \frac{45}{1+45(0.05)^2} = 40 \text{ persons}$$

After getting the size of sample group the researcher took a random by using the probability sampling principle with simple random sampling this is the random sampling by considering that all systematic users had the opportunity to be chosen equally. With this method of random sampling the name list of all system users is necessary. For the method of random sampling the researcher selected 40 persons from 45 name lists by the system users who can be anyone.

3.2 Research Instruments

Questionnaire is used for this research as the instrument for data collection. Each item of questions was applied from the concepts, theories and research involved with the theory of the Technology Acceptance Model 2. The contents in this questionnaire can be divided into 2 parts as follows:

Part 1: this is the general information of the responders. The characteristic of questionnaire is check list. There are 7 questions in this part including gender, age, the highest educational level and work position, age of work and frequency of system use learning of use method and information access in the system.

Part 2: Attitudes on acceptance and system use. The questionnaire is in the form of rating scale according to the Likert Scale principle. The measure level can be divided into 5 levels as follows:

5 means Strongly agree
4 means Agree
3 means Not sure
2 means Disagree
1 means Strongly disagree

After the questionnaire had been designed to make sure that the designed questionnaire was reliable and qualitative the researcher proposed the questionnaire created from literature reviews, concepts, theories and related researches to the thesis committees who were experts in terms of this topic of the study in order to check the validity of contents, language used, characteristics of question items, so that the researcher would modify them according to the suggestions before bringing the questionnaire to collect data with the sample group and then analyzed to find the reliability. The formula used for this research was the formula to find the co-efficient value of Cronbach's Alpha.

3.3 Data Collection

The researcher collected the data from the sample group who used the annual budget plan system for 40 persons from all 45 persons. The sample group was selected by random sampling. The questionnaire was given out directly to the sample group in the central office and via e-mail for the sample group in the regional office. When all questionnaires were delivered back the researcher would be selected only completed and perfect questionnaires to be analyzed and processed for the data.

3.4 Analysis and Data Interpretation

The data collected from the questionnaire were analyzed and processed by the statistic program as follows:

Part 1: General data of the responders. The questionnaire was designed in terms of check list. The data were analyzed by using the statistical program of SPSS. The data was analyzed to find the percentage and frequencies.

Part 2: Attitudes on acceptance and system use. The questionnaire was designed in term of rating scale according to the Likert Scale principle. The measurement was divided into 5 levels by using the statistical program of SPSS. The data were analyzed to find the percentage, frequencies, mean and standard deviation. The variables were scored by finding the average of scores in each opinion level and average got was arranged the score range for the data interpretation in each opinion

level. For the consideration of scope for average score which would be used in the data interpretation, the formula could be calculated as follows:

Width of class interval = (maximum score – minimum score) / level
= (5 - 1) / 5
= 0.8

Hence, the width of class interval was equal to 0.8 then it was determined as the score average of each opinion level. The meaning interpretation of data used the mean got from calculation to consider which level of mean was and then the data was interpreted according to the criteria determined as the Table 3.1

Table 3.1 The average score of each opinion level.

Opinion Level	Score Level	Average Score
Strongly agree	5	4.21 – 5.00
Agree	4	3.41 – 4.20
Not sure	3	2.61 – 3.40
Disagree	2	1.81 – 2.60
Strongly disagree	1	1.00 – 1.80

Then the Structural Equation Modeling (SEM) was analyzed by using the statistical program of LISREL to analyze the correlation coefficient of independent variables and dependent variables and analyze the relationship of independent variables and dependent variables in terms of path analysis in order to test and estimate the value of reasonable relationship and find the relationship value of variables and take the results to be analyzed and concluded.

3.5 Research Model

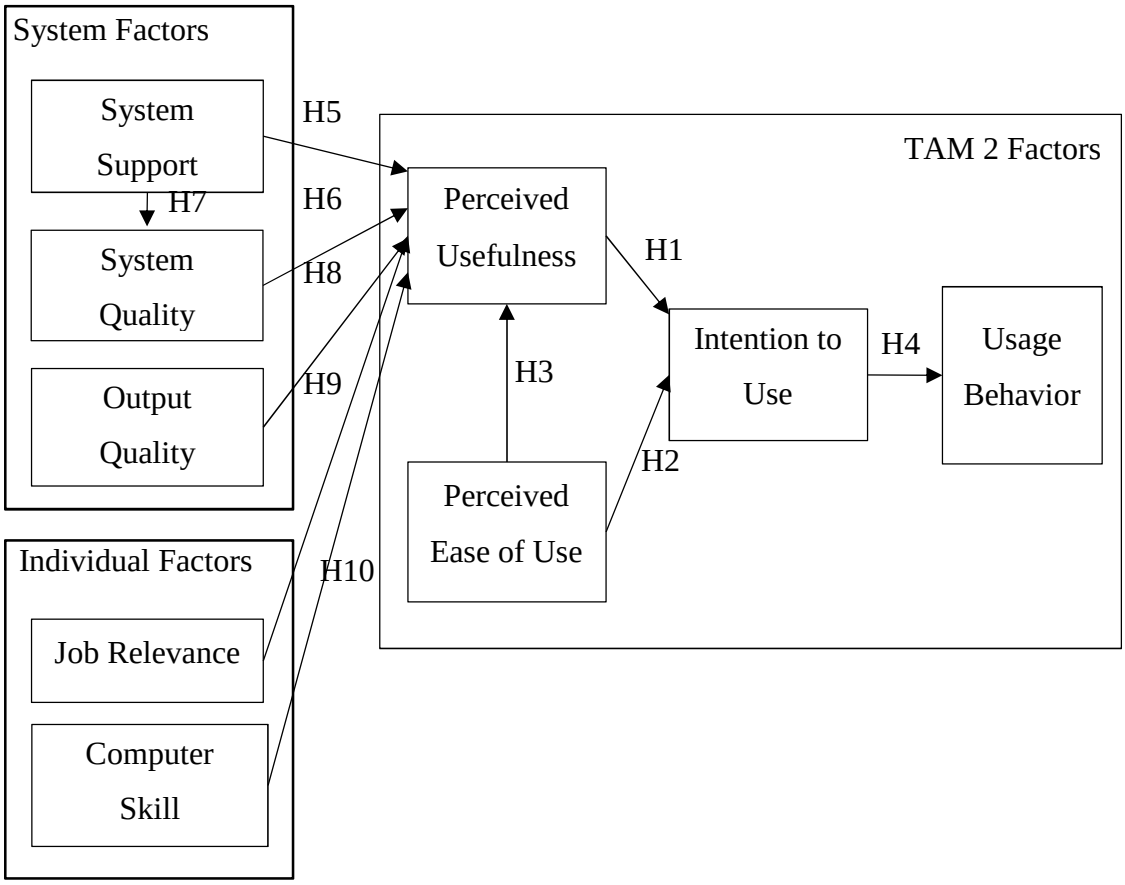


Figure 3.1 Research Model (Jureeporn Thongthawai, 2012 Reference from Venkatesh and Davis, 2000)

According to the conceptual framework of this research, it consists of the variables as follows:

1. Independent Variables: this consists of 2 factors including

1.1 System factors, this consists of;

1.1.1 System Support; getting support of system use from the administrator and chief in order to create the system use.

1.1.2 System Quality; the work quality of system such as system connection and response quickness.

1.1.3 Output Quality; the quality of information and results got from system use both directly and indirectly.

1.2 Personal Factors; this includes

1.2.1 Relation with work; the characteristics of work are related or involved with the system use.

1.2.2 Computer Skills; the knowledge and competency of computer use.

2. Dependent Variables; this consists of

2.1 Perceived Usefulness; the perception of benefits from system use.

2.2 Perceived Ease of Use; the perception of ease of use system without relying on any knowledge or effort to learn the system use much.

2.3 Intention to Use; the system users have intention to use the system for their operation.

2.4 Usage Behavior; the acceptance and system use of the users.

3.6 Hypothesis

This researcher brought the TAM 2 to be the conceptual framework of research and it is the framework of hypothesis determination. The details are as follows:

Hypothesis 1 (H1): The perception of benefits caused by the system use it affects the intention to use.

Hypothesis 2 (H2): The perception of ease on the use system affects the intention to use.

Hypothesis 3 (H3): The perception of ease on the use system affects the perceived usefulness.

Hypothesis 4 (H4): The intention to use affects the usage behavior.

Hypothesis 5 (H5): The support of system use affects the perceived usefulness.

Hypothesis 6 (H6): The quality of system affects the perceived usefulness caused by the system use.

Hypothesis 7 (H7): The support of system use affects the system quality.

Hypothesis 8 (H8): The output quality affects the perceived usefulness caused by the system use.

Hypothesis 9 (H9): The work relation affects the perceived usefulness caused by the system use.

Hypothesis 10 (H10): the computer skills affect the perceived usefulness caused by the system use.

3.7 Research Schedule

Activity	2013								2014		
	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Preliminary	→	→									
Define scope of survey		→	→								
Define Research Framework			→	→	→						
Design Research instrument				→	→	→	→				
Data Gathering								→	→		
Data Coding										→	
Data Analysis										→	→
Summarize Results										→	→
Documentation	→	→	→	→	→	→	→	→	→	→	→

CHAPTER IV
DATA ANALYSIS RESULTS

The research data of use acceptance on annual budgets plan system of Department of Industrial Promotion were collected by using questionnaire from the sample group of 40 users of annual budgets plan system selected from total 45 users. Then, the data got from the questionnaire were analyzed in terms of acceptance level on information technology, factors affecting and influencing the acceptance, problems and obstructions towards the acceptance of information technology towards the system use as follows:

4.1 General Information of the Responders

For general information analysis of the responders, the researcher analyzed the data by using descriptive statistics method considered by percentage and frequencies. The results can be analyzed as shown in the Table 4.1

Table 4.1 General information of the responders (N=40).

General information of the responders		**Number (N=40)**	**Percentage**
Gender	Female	29	72.50
	Male	11	27.50
Age	20 – 30 years old	11	27.50
	31 – 40 years old	11	27.50
	41 – 50 years old	13	32.50
	51 – 60 years old	5	12.50
	More than 60 years old	0	0.00

Table 4.1 General information of the responders (N=40). (Cont.)

General information of the responders		Number (N=40)	Percentage
Educational Degree	Lower than Bachelor's Degree	0	0.00
	Bachelor's Degree	36	90.00
	Master's Degree	4	10.00
	Doctoral Degree	0	0.00
Position	Civil Servant	18	45.00
	Government Employee	11	27.50
	Service Contractor	11	27.50
Work Experience	Lower than 1 year	3	7.50
	1 - 5 years	11	27.50
	6 - 10 years	15	37.50
	11 – 15 years	3	7.50
	More than 15 years	8	20.00
Frequency of system use	1 – 2 times/week	3	7.50
	3 – 4 times/week	6	15.00
	5 – 6 times/week	11	27.50
	Every day	20	50.00
What kind of sources do you learn of data use and access in the system?	Documents and manuals made by the organization.	18	45.00
	Ask from system authorities	33	82.50
	Ask from friends	23	57.50
	Training or lecture participation	24	60.00
	Self-test of use	28	70.00
	Others	3	7.50

According to the Table 4.1 General information of the responders collected by the 40 samples can be described according to the details as follows:

1. Gender: it was found that most of the responders were female more than male, female was 29 persons (72.50%), male was 11 persons (27.50%) as the Figure 4.1

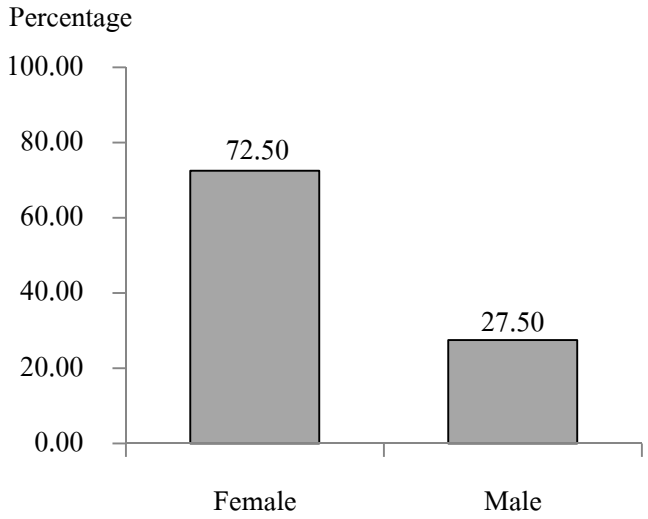


Figure 4.1 Data of gender

2. Age: it was found that most of the responder's age between 41 - 50 years old included 13 persons (32.50%), secondly between 20 - 30 years old and 31 - 40 years old included 11 persons per each (27.50%) and the least between 51 – 60 years old included 5 persons (12.50%) as the Figure 4.2

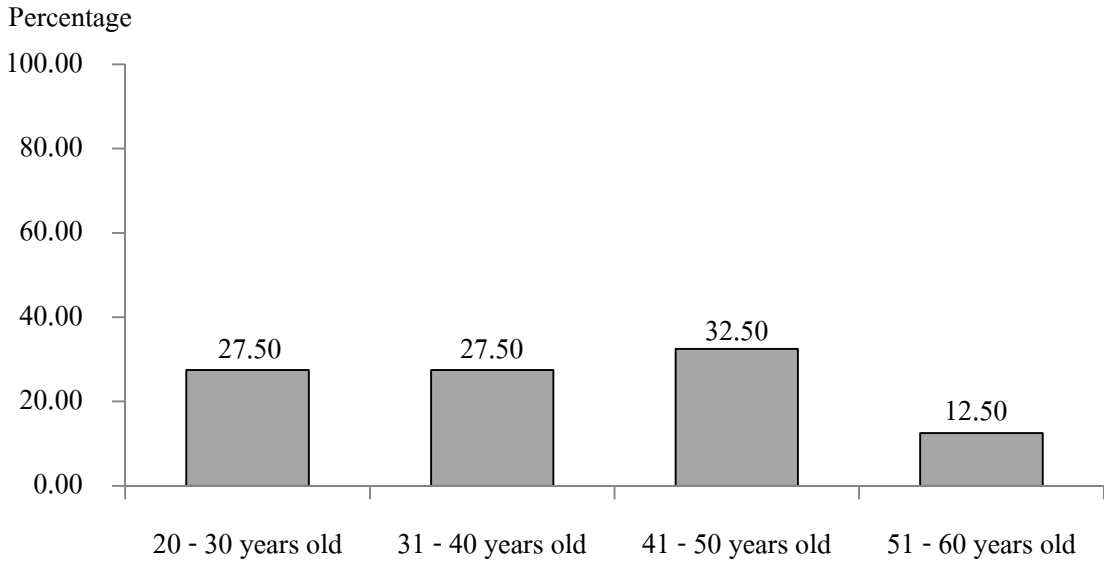


Figure 4.2 Data of age

3. Educational level: it was found that most of the responders held the educational level of Bachelor's Degree for 36 persons (90%), Master's Degree for 4 persons (10%) as the Figure 4.3

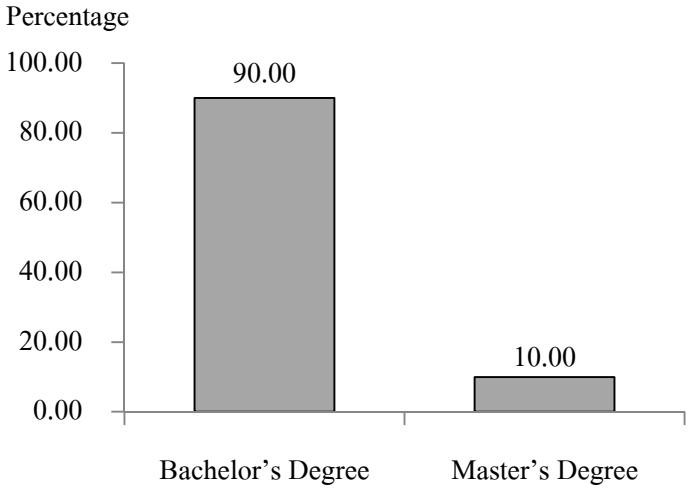


Figure 4.3 Data of Educational level

4. Work position: it was found that most of the respondents were civil servants for 18 persons (45%), the government employees and service contractors for 11 persons per each (27.50%) as the Figure 4.4

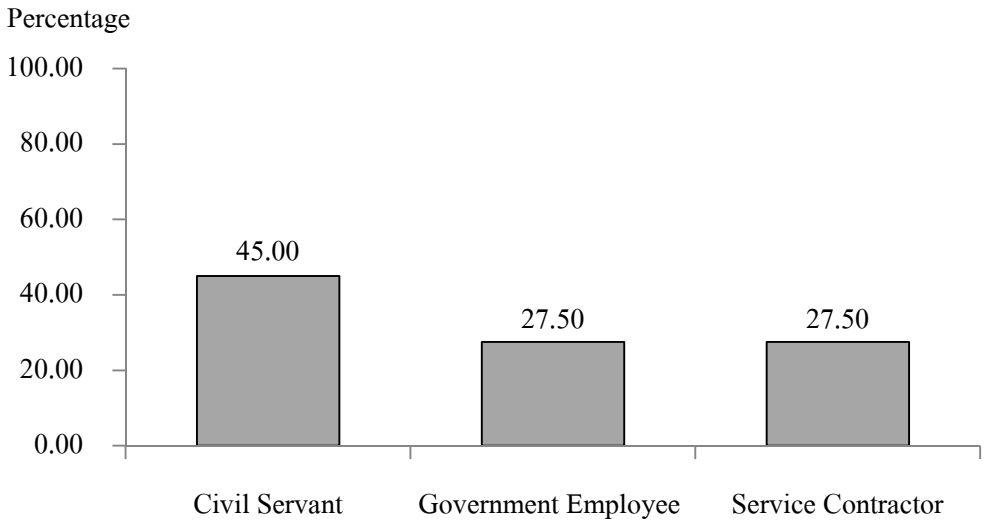


Figure 4.4 Data of Work position

5. Work experience: it was found that most of the responders having the work experience between 6 – 10 years included 15 persons (37.50%), 1 – 5 years included 11 persons (27.50%) and the least lower than 1 year and 11 – 15 years per each included 3 persons (7.50%) as the Figure 4.5

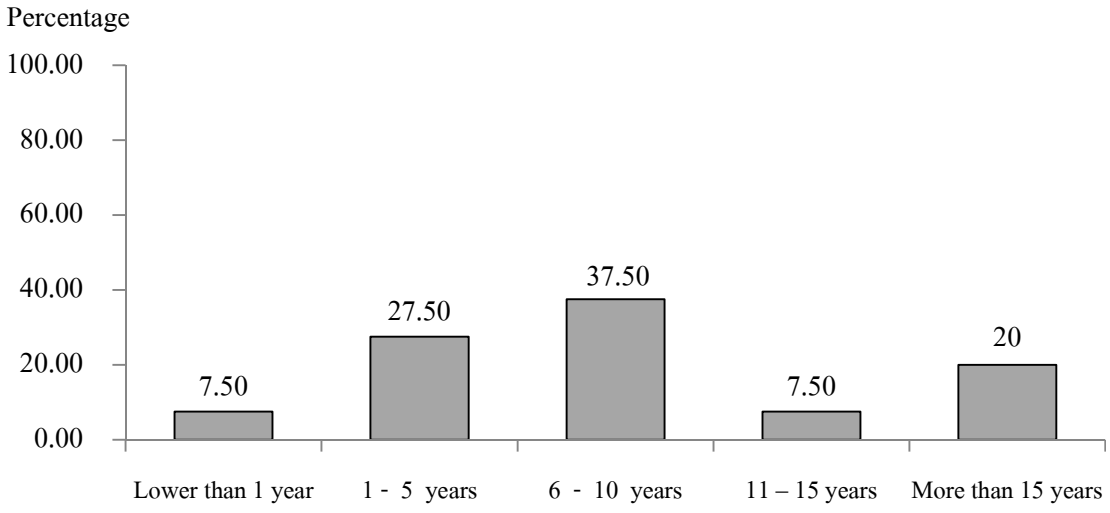


Figure 4.5 Data of Work experience

6. Frequency of system use: it was found that most of the responders using the system use every day included 20 persons (50%), 5 – 6 times per week included 11 persons (27.50%) and use in the system the least for 1 – 2 times per week included 3 persons (7.50%) as the Figure 4.6

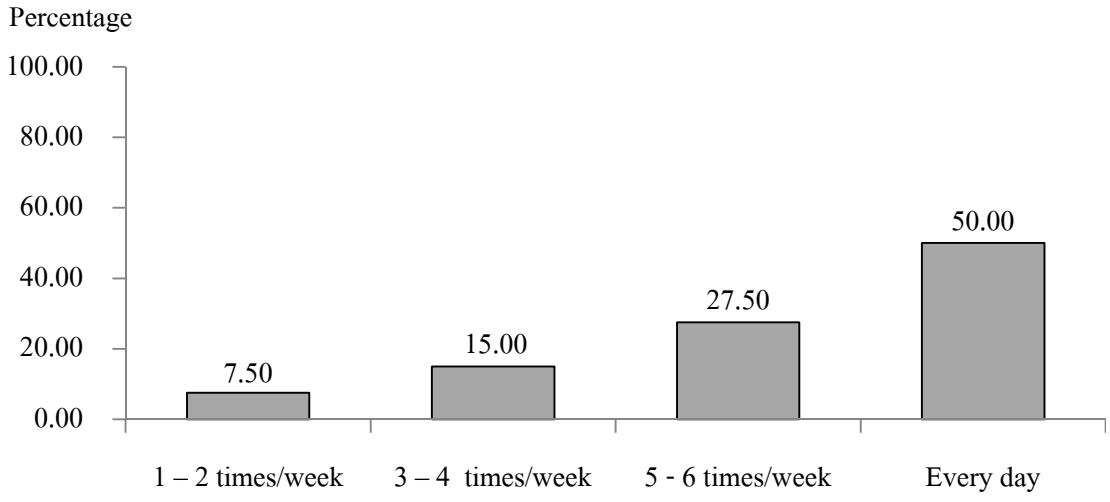


Figure 4.6 Data of Frequency of system use

7. Leaning of system use and access: it was found that most of the responders learning system use and access by asking the information from authorities supervising the system included 33 persons (82.50%), the experiment of self- system use included 28 persons (70%) and the least was from other sources such as suggestions from the persons who ever used the system before included 3 persons (7.5%) as the Figure 4.7

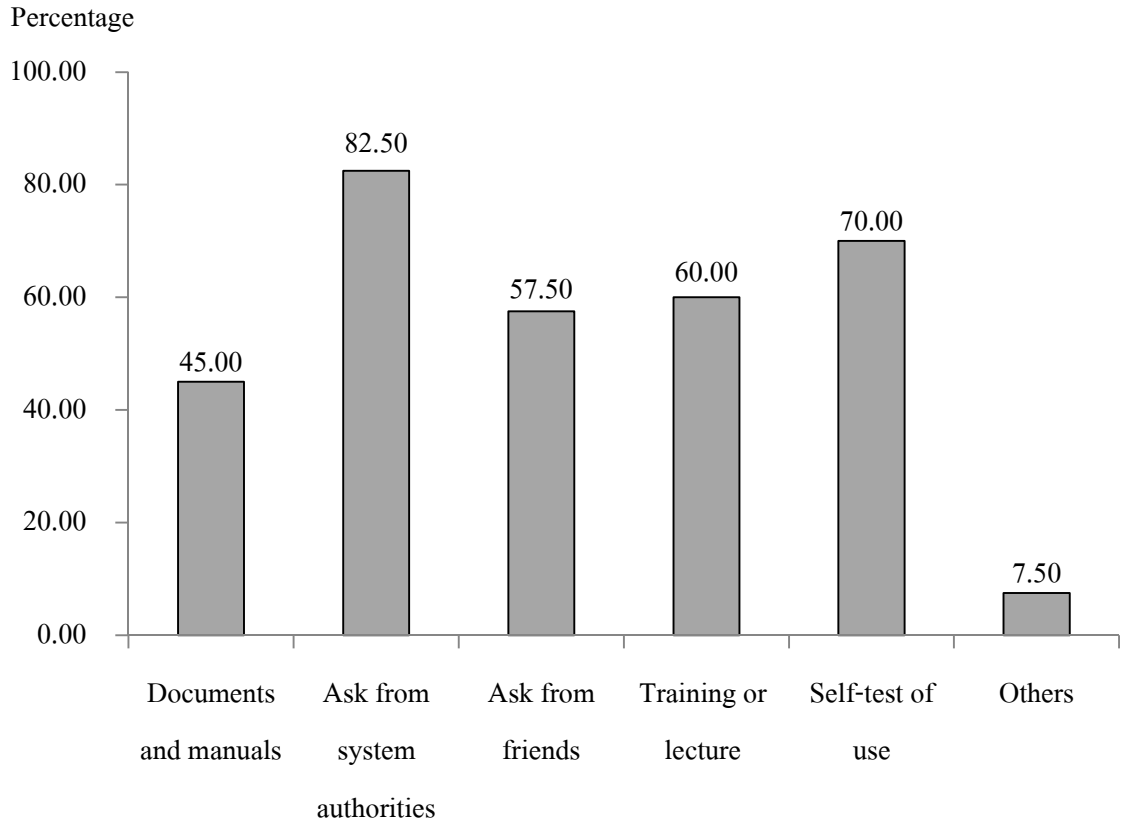


Figure 4.7 Leaning of system use and access

4.2 Attitudes Towards the Acceptance and System Use

The analysis of attitudes towards acceptance and system use is the analysis at the opinion level of the sample group who answered the questionnaires about factors affecting the acceptance and system use. The data were analyzed by using Descriptive Statistics method considered by Mean, Standard Deviation (S.D.) and

Reliability of question items by reading the Cronbach's Alpha value. The details of data analysis are shown in the Table 4.2 as follows:

Table 4.2 Mean and SD. of attitudes towards the acceptance and system use.

Attitudes towards acceptance and system use	Mean	S.D.	Opinion Level
System Support			
1. The administrator emphasizes the system use.	3.75	0.588	High
2. The administrator clearly determines the development policy plans and system uses.	3.68	0.656	High
3. The administrator created the motivation for personnel to participate of development and system use.	3.33	0.829	Moderate
4. The chief supports the system use.	4.10	0.545	High
5. The authorities in the organization or development system authorities give help and give consultancy.	3.88	0.822	High
6. Various organizations mutually co-ordinate and co-operate in the system development.	3.67	0.764	High
7. You get training of use methods and functions.	3.35	1.001	Moderate
8. You can transfer knowledge from training to your colleagues.	3.80	0.723	High
9. The organization organizes the training of system use regularly.	2.78	1.000	Moderate
Total	**3.59**	**0.770**	**High**
System Quality			
1. There is the clear safety system and right and access determination of users' data.	4.15	0.483	High
2. There is the system of spare data storage in case the system causes problems, which can be restored.	3.20	0.911	Moderate
3. The connection of system is stable.	3.38	0.897	Moderate

Table 4.2 Mean and SD. of attitudes towards the acceptance and system use. (Cont.)

Attitudes towards acceptance and system use	Mean	S.D.	Opinion Level
4. The system is quick which can respond the usage of users effectively.	3.42	0.844	High
Total	**3.54**	**0.780**	**High**
Output Quality			
1. The information from the system is correct and reliable.	3.82	0.781	High
2. The information from the system is modern all the time.	3.77	0.733	High
3. The system helps produce the correct reports and be the part of decision making for the operation.	3.82	0.747	High
4. The system helps you get the correct answers for the commitment.	3.80	0.687	High
Total	**3.81**	**0.740**	**High**
Job Relevance			
1. Your work characteristics are relevant to the system use.	4.32	0.730	Highest
2. The system helps adjust the work styles to be compact, quick and flexible more.	4.00	0.716	High
Total	**4.16**	**0.720**	**High**
Computer Skill			
1. You are knowledgeable and can use basic computer program such as Microsoft Office, Internet and Intranet very well.	3.97	0.733	High
2. You can learn and use the computer technology or new technologies by your own.	3.90	0.672	High
3. You can solve the basic problems about the computer use by your own.	3.35	0.834	Moderate
Total	**3.74**	**0.750**	**High**

Table 4.2 Mean and SD. of attitudes towards the acceptance and system use. (Cont.)

Attitudes towards acceptance and system use	Mean	S.D.	Opinion Level
Perceived Usefulness			
1. The system helps operate more effectively and efficiently.	3.90	0.591	High
2. The system helps use the information together with other computer programs very well.	3.87	0.563	High
3. The system helps reduce the mistake of operation.	3.90	0.672	High
4. The system helps search information or retrieves reports more quickly than searching information from the documents.	4.05	0.552	High
5. The system helps reduce the quantity and number of paper use in the organization.	3.70	0.791	High
Total	**3.88**	**0.630**	**High**
Perceived Ease of Use			
1. The use and work procedures of the system are clear and easy to understand.	3.67	0.730	High
2. You perceive and can learn the system use.	3.75	0.776	High
3. You have to spend the time and efforts for learning of system use very much.	3.28	0.877	Moderate
4. You think that the system use is easy, knowledge and skills are not necessary.	3.28	0.679	Moderate
5. The system is flexible and applicable.	3.34	0.627	Moderate
Total	**3.46**	**0.74**	**High**
Intention to Use			
1. You intend and pay attention to use the system continually.	3.85	0.700	High
2. You pay attention to use the system when you need to record and need the data only.	3.88	0.853	High

Table 4.2 Mean and SD. of attitudes towards the acceptance and system use. (Cont.)

Average	**3.87**	**0.780**	**High**
Average in every aspect	**3.76**	**0.740**	**High**

Remark: Cronbach's Alpha = 0.881

According to the Table 4.2 the attitudes towards the acceptance and system use as overall image for all 8 aspects were found that most of the responders had attitudes towards acceptance and system use at the high level with its mean was equal to 3.76 and the standard deviation was equal to 0.740. When considering as each aspect it was found that the aspect which it's mean was the highest included the job relevance aspect with the mean of 4.16 and the standard deviation of 0.720. Secondly, it was perceived usefulness aspect with the mean of 3.88 and the standard deviation of 0.630. Whereas the aspect which it's mean was the least included the perceived ease of use with its mean of 3.46 and the standard deviation of 0.740, respectively as shown in the Figure 4.8.

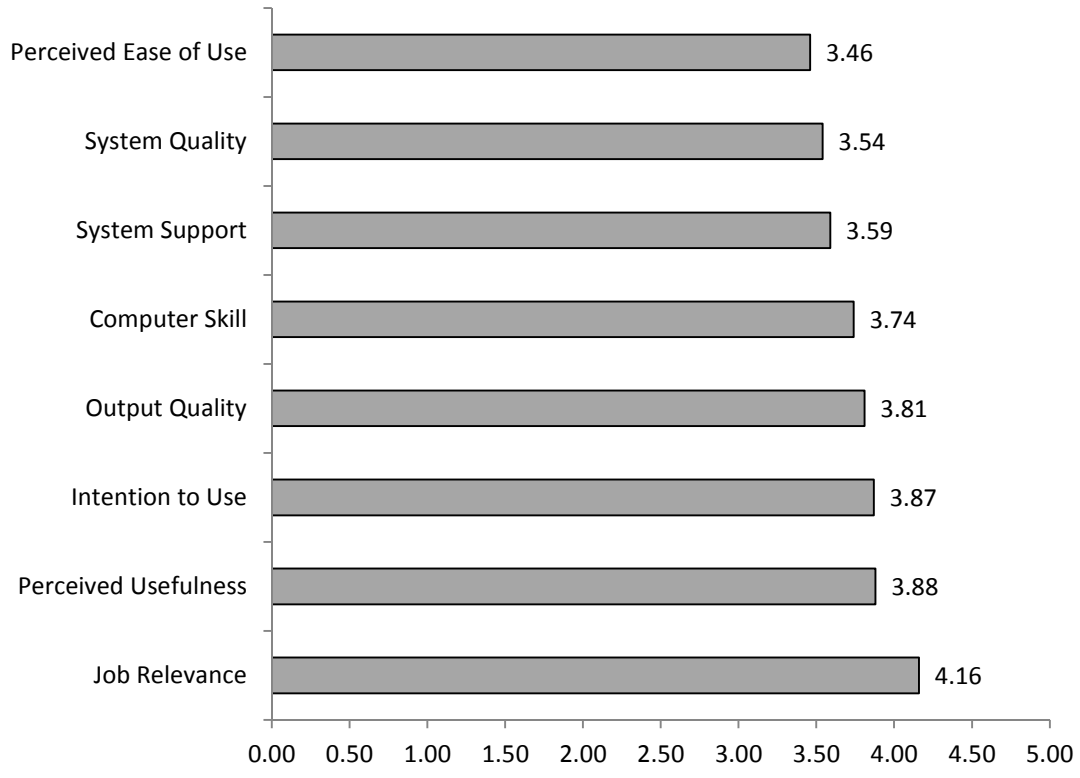


Figure 4.8 Average in every aspect

When analyzing the data in each aspect, it was found that in terms of system support as overall image it had the opinion level at the high level the mean was equal to 3.59 and the standard deviation was equal to 0.770. Most of the opinions were viewed that the chief supported the system the most. The mean was equal to 4.10 and the standard deviation of was equal to 0.545. Secondly, it was about the authorities in the organization or the authorities of system development helped and gave consultancy. Its mean was equal to 3.88 and the standard deviation was equal to 0.822. Whereas the least opinion was about the organization organized the training of system use regularly. Its mean was equal to 2.78 and the standard deviation was equal to 1.

For the System Quality aspect, it was found that as overall image it had the opinion level at the high level. Its mean was equal to 3.54 and the standard deviation of was equal to 0.780. Most of the opinions were viewed that there was the clear safety system and right determination to access the data of users. Its mean was equal to 4.15 and the standard deviation was equal to 0.483. Secondly, the system was quick and could respond the use of users effectively. Its mean was equal to 3.42 and the standard deviation was equal to 0.844. Whereas the least opinion was about there was the system of spare data storage, in case the system causes problems, which could be retrieved the spare data to use. Its mean was equal to 3.20 and the standard deviation was equal to 0.911. For the Output Quality, it was found that as overall image the opinion level was at the high level. Its mean was equal to 3.81 and the standard deviation was equal to 0.740. The majority had the opinion that the information from system was correct, reliable and the system could produce the correct reports to be the part of decision making for the operation. Its mean was equal to 3.82 and the standard deviation was equal to 0.781 and 0.747. Secondly, the system helped getting the correct information for being used in the commitment. Its mean was equal to 3.80 and the standard deviation was equal to 0.687. The aspect which had the least opinion included the information got from the system was Real time. Its mean was equal to 3.77 and the standard deviation was equal to 0.733.

According to the job relevance it was found that as overall image the opinion level was at the high level. Its mean was equal to 4.16 and the standard deviation was equal to 0.72. The majority viewed that the work characteristics were relevant with the system use with the mean of 4.32 and the standard deviation was

equal to 0.730. Whereas the least opinion included the system helped adjust the work style to be more compact, quicker and more flexible. Its mean was equal to 4.00 and the standard deviation was equal to 0.716. In terms of computer skill it was found that as overall image the opinion level was at the high level. Its mean was equal to 3.74 and the standard deviation was equal to 0.750. The majority viewed that there was the knowledge's and capable to use the basic computer program such as Microsoft Office, Internet and Intranet very well. Its mean was equal to 3.97 and the standard deviation was equal to 0.733. Secondly, the ability to learn and use the computer technology or new technologies by their own its mean was equal to 3.90 and the standard deviation was equal to 0.672. Whereas the least opinion included basic problem solving about self-computer use its mean was equal to 3.35 and the standard deviation was equal to 0.834. The perceived usefulness it was found that as overall image the opinion level was at the high level. Its mean was equal to 3.88 and the standard deviation was equal to 0.630. The majority viewed that the system helped search the information or retrieved the reports more quickly than searching information from the documents. Its mean was equal to 4.05 and the standard deviation was equal to 0.552. Secondly, the system helped the operation work effectively and efficiently more than the previous time and the system helped reduce the mistakes. Its mean was equal to 3.90 and the standard deviation was equal to 0.591 and 0.672. For the least opinion it included the system which helped reduce the quantity and number of paper use of the organization. Its mean was equal to 3.70 and the standard deviation was equal to 0.791.

For perceived ease of use it was found that as overall image the opinion level was at the high level. Its mean was equal to 3.46 and the standard deviation was equal to 0.740. The majority viewed that there was the ability to perceive and learn the system use. Its mean was equal to 3.75 and the standard deviation was equal to 0.776. Secondly, it was the use and procedures of the system operation which were clear and easy to understand. Its mean was equal to 3.67 and the standard deviation was equal to 0.730. The least opinion was about the necessity to spend time and efforts to learn and use the system very much, the system use was easy, skills and knowledge's were not necessary. Its means was equal to 3.28 and the standard deviation was equal to 0.877 and 0.627. Intention to use it was found that as overall image the opinion level was at the high level. Its mean was equal to 3.87 and the standard deviation was equal to was

equal to 0.780. The majority viewed that it was the intention to use the system when the data record and data were needed. Its mean was equal to 3.88 and the standard deviation was equal to 0.853. The least opinion included the intention and goals to rely on the system use continually. Its mean was equal to 3.85 and the standard deviation was equal to 0.700.

4.3 Analysis of Correlation Coefficient of Independent Variables and Dependent Variables

The analysis of correlation coefficient of independent variables and dependent variables according to the conceptual framework the researcher considered the Pearson's Correlation Coefficient. The results were as follows:

Table 4.3 Correlation Coefficient.

	SYS	SYQ	OUQ	JOR	COS	PEU	PEE	INU
SYS	1.000							
SYQ	0.520 ●	1.000						
OUQ	0.332 ▲	0.505 ●	1.000					
JOR	0.124	0.166	0.345	1.000				
COS	0.473 ●	0.145	0.327 ▲	0.275	1.000			
PEU	0.409 ●	0.481 ●	0.459 ●	0.304	0.319 ▲	1. 000		
PEE	0.663 ●	0.533 ●	0.563	0.378	0.375 ▲	0.570 ●	1.000	
INU	0.296	0.246	0.058	-0.093	0.073	0.179	0.429 ●	1.000
Mean	3.590	3.540	3.810	4.160	3.740	3.890	3.470	3.860
S.D.	0.500	0.600	0.620	0.640	0.560	0.460	0.530	0.580
Min	2.670	2.250	2.000	2.500	2.670	3.000	2.600	3.000
Max	4.890	5.000	5.000	5.000	4.670	5.000	4.600	5.000

▲ Means the correlation at the significance of 0.05

● Means the correlation at the significance of 0.01

From the Table 4.3 it was found that the variables which had mutual correlation were 17 pairs totally. For 11 pairs, they had the statistical significance at 0.01 level and the statistical significance at the 0.05 level for all 6 pair. All variables had the positive characteristics. The variables which had the mutual correlation the highest included the system support and perceived ease of use (r = 0.663). The variable which had the least correlation included computer skill and perceived usefulness (r = 0.319). From the characteristics of correlation among the mentioned variables there is the appropriateness to be analyzed about the causal influence further.

4.4 Path Model Analysis

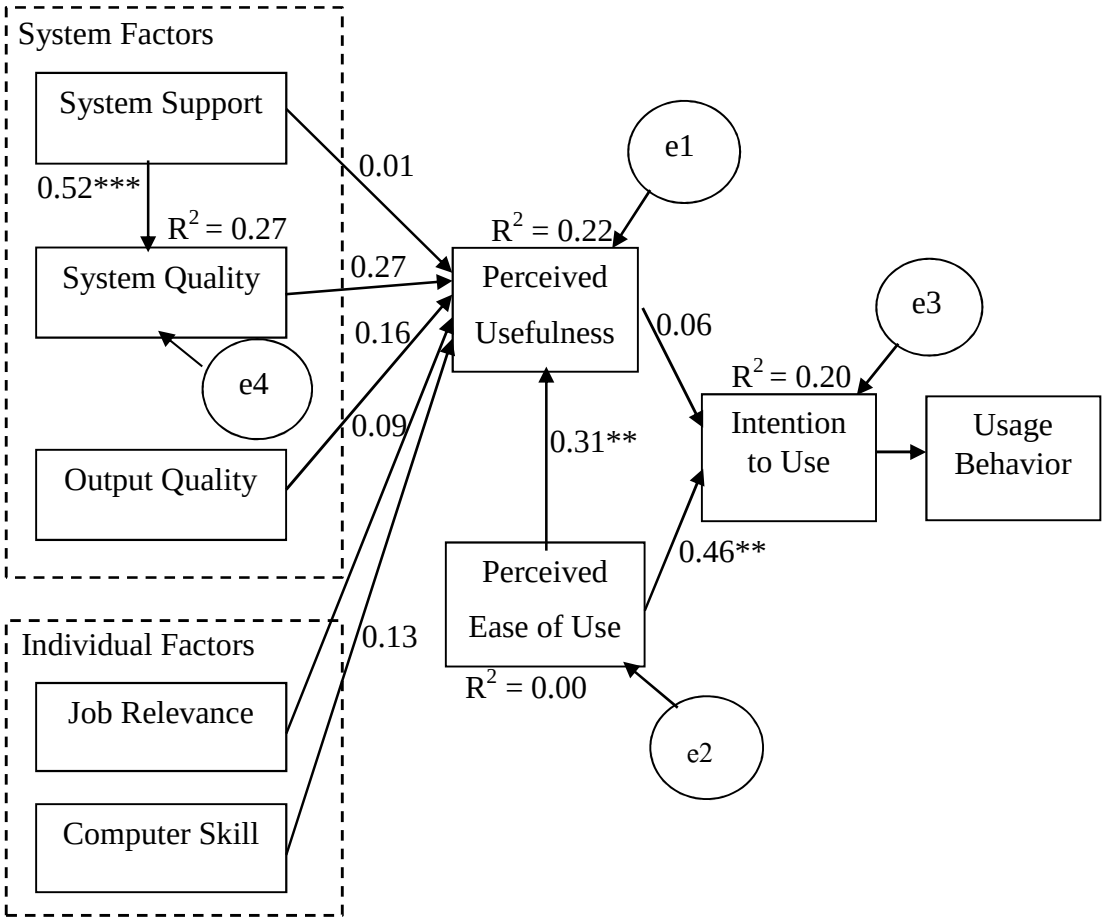
The path model analysis in this study represented the equation value of the appropriate model which was Chi-Square (χ^2) equal to 69.89, degree of freedom (df) equal to 19, Probability in Statistics (P-value) equal to 0.00, Goodness – of – Fit Index (GFI) equal to 0.67, Adjusted GFI (AGFI) equal to 0.38, Normed Fit Index (NFI) equal to 0.36, Non - Normed Fit Index (NNFI) equal to 0.077, Relative Fit Index (RFI) equal to 0.057, Incremental Fix Index (IFI) equal to 0.436, Root Mean Square Residual (RMR) equal to 0.084 and Root Mean Square Error of Approximation (RMSEA) equal to 0.262. Generally the appropriate statistics value for the equation should have the value more than or equal to 0.9 for GFI, NFI, RFI and CFI which are the appropriate indicator of the variables. According to the results mentioned above it can be seen that the model is acceptable according to the determined criteria and this model supports the correlation between the latent variables and indicator variables. The details are shown as the Table 4.4.

Table 4.4 Path Analysis.

Model fit	Recommended Value	Model Value
χ^2/d.f	<2.0	69.888/19
goodness – of – fit index (GFI)	>0.9	0.673
Adjusted Goodness of fit (AGFI)	<0.8	0.381
normed fit index (NFI)	>0.9	0.360

Table 4.4 Path Analysis. (Cont.)

Model fit	Recommended Value	Model Value
non- normed fit index (NNFI)	<0.9	0.077
relative fit index (RFI)	<0.9	0.057
incremental fix index (IFI)	<0.9	0.436
Root mean square residual (RMR)	<0.05	0.084
Root mean square error of approximation (RMSEA)	<0.08	0.262



** Means the correlation at the significance of 0.01

*** Means the correlation at the significance of 0.001

Chi – Square = 69.889, df =19, P – value = 0.00, RMSEA = 0.262

Figure 4.9 Path Analysis

From the figure 4.9 the casual relation between the path coefficient value and correlation coefficient value used the T-Test statistics and to investigate the statistical significance and it was found that the system support had the positive significance and this affects the quality of the system ($\beta = 0.52$, $p < 0.001$), perceived ease of use had the positive significance and affected the perceived usefulness ($\beta = 0.31$, $p < 0.01$) and perceived ease of use had the positive significance and affected the Intention to Use ($\beta = 0.46$, $p < 0.01$).

According to the description of variation on system quality ($R^2 = 0.27$), it was found that the perceived usefulness ($R^2 = 0.22$), perceived ease of use ($R^2 = 0.00$) and intention to use ($R^2 = 0.20$), the results got can be considered as the appropriate model. However, there are some routes which there has no the statistical significance. For the figure 4.1, it represented that the factors affected the highest in terms of perceived usefulness was the perceived ease of use ($\beta= 0.31$), secondly it was the system quality ($\beta= 0.27$), output quality ($\beta= 0.16$), computer skills ($\beta= 0.13$), job relevance ($\beta= 0.09$) and system support ($\beta= 0.01$). Whereas the factors affecting and influencing the highest in terms of intention to use included the perceived ease of use ($\beta = 0.46$), secondly it was perceived usefulness ($\beta= 0.06$). Moreover, the perceived ease of use directly influenced towards the intention to use and the use behaviors were caused by the intention to use the system.

Perceived usefulness and perceived ease of use can be indicated that the perceived ease of use was affected the most on the other hand the technology users were influenced by the perceived of use and perceived ease of use.

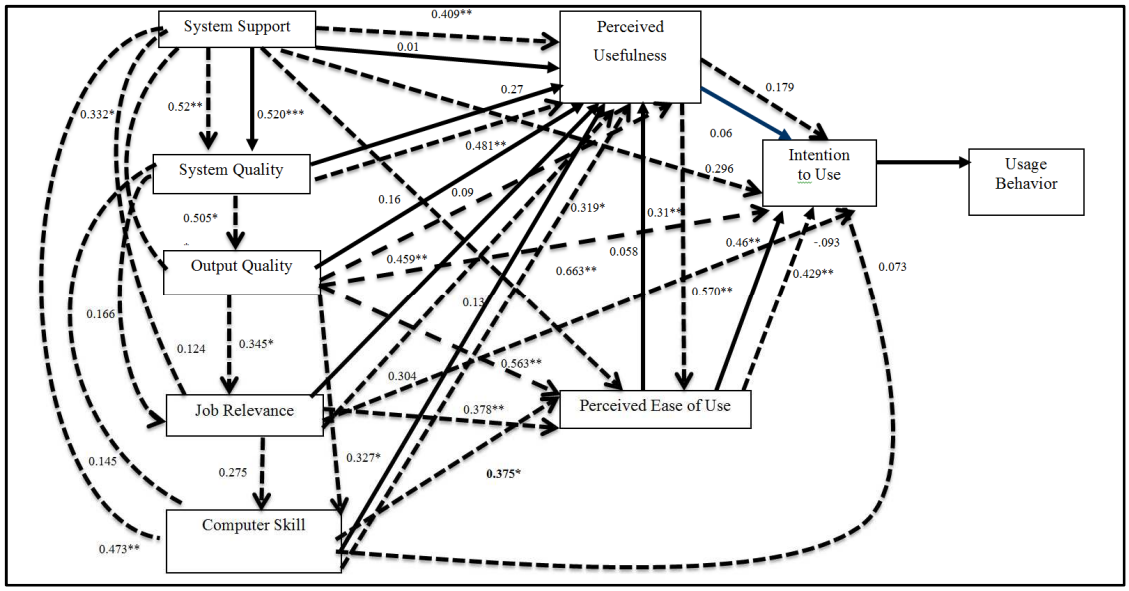


Figure 4.10 Correlation Analysis

According to the figure 4.10, it can be concluded to express the Causal Relationship between the Path Coefficient and Correlation Coefficient. The statistics used is t-test to investigate the significant statistics and found that the support of system use had positive significance and it affects the quality of system ($\beta = 0.52$, $p < 0.001$). When considering the Correlation Coefficient, it was found that the support of system use of positive relation ($r = 0.520$) by statistical significance at 0.01 with the quality of use system which had the positive relation ($r = 0.332$) by statistical significance at 0.05 level. The results quality of system use had the positive relationship ($r = 0.124$) with the relation of work supported to the system use had the positive relationship ($r = 0.473$) by statistical significance at 0.01 level with the computer skills which the system use had the positive relationship ($r = 0.409$) by statistical significance at 0.01 level with the perception of received benefits for the support of system use which had the positive relationship ($r = 0.663$) by statistical significance at 0.01with the perception of use easiness for system use support which had the positive relationship ($r = 0.296$) with the intention of use.

The quality of system by having no statistical significance affecting the perceived benefits ($\beta = 0.27$, $p > 0.01$), when considering the Correlation Coefficient, it

was found that the quality of system had the positive relationship (r = 0.505) by statistical significance at the 0.01 level with the results quality. The system quality had positive relationship (r = 0.166) with the relevance of work. The quality of system had the positive relationship (r = 0.145) with the computer skills, the quality of system had the positive relationship (r = 0.481) by statistical significance at the 0.01 level with the perceived benefits, the quality of system had the positive relationship (r = 0.533) by statistical significance at the 0.01 level with the perception of easiness of use which the quality of system had the positive relationship (r = 0.246) with the intention of use. The quality of results had no statistical significance affecting the perceived benefits (β = 0.16, p >0.01). When considering the Correlation Coefficient, it was found that the quality of results had the positive relationship (r = 0.345) by statistical significance at the 0.05 level with the relevance of work which made the quality of results have the positive relationship (r = 0.327) by statistical significance at the 0.05 level with the math skills which the quality of results had the positive relationship (r = 0.459) by statistical significance at the 0.01 level with the perceived benefits. The quality of results had positive relationship (r = 0.563) by statistical significance at the 0.01 level with the perceived easiness of use, the quality of results had the positive relationship (r = 0.058) with the intention of use.

For the relevance with work which had not statistical significance affecting the perceived benefits (β = 0.09 , p > 0.01), when considering the Correlation Coefficient, it is found that the relevance of work had the positive relationship (r = 0.275) with the computer skills, the work relevance had the positive relationship (r = 0.304) with the perceived benefits with the work relevance which had the positive relationship (r = 0.378) by statistical significance at 0.05 level with the perceived easiness of use. And the work relevance had negative relationship (r = -.093) with the intention of uses. The math skills in terms of computer skills had no statistical significance towards the perceived benefits (β = 0.13, p > 0.01). When considering the Correlation Coefficient, it was found that the skills of computer had the positive relationship (r = 0.319) by statistical significance at the 0.05 level with the perceived benefits. The computer skills had the positive relationship (r = 0.375) by statistical significance at the 0.05 level with the perceived easiness of use, and the computer skills had the negative relationship (r = 0.073) with the intention of use. The perceived

benefits had no statistical significance affecting the intention of use ($\beta = 0.06$, $p > 0.01$) When considering the Correlation Coefficient, it was found that the perceived benefits had the negative relationship ($r = 0.570$) by statistical significance at the 0.01 level with the perceived easiness of use. The perceived benefits had negative relationship ($r = 0.179$) with the intention of use. The perceived easiness of use had the statistical significance affecting the perceived benefits ($\beta = 0.31$, $p < 0.01$). And the perceived easiness of use had the statistical significance affecting the intention of use ($\beta = 0.46$, $p < 0.01$). When considering the Correlation Coefficient, it was found that the perceived easiness of use had the negative relationship ($r = 0.429$) by statistical significance at the 0.01 with the intension of use.

4.5 Hypothesis Test

According to the hypothesis test and data analysis it was found that the determined hypothesis for all 10 items had all 3 significance which included the 2nd hypothesis (H2), the 3rd hypothesis (H3) and the 7th hypothesis (H7). The details are shown in the Table 4.5.

Table 4.5 Conclusion of hypothesis test results.

Hypothesis	Description	β Value	Results
1st Hypothesis (H1)	Perceived Usefulness caused by system use affects the Intention to Use	0.06	Has no statistical significance
2nd Hypothesis (H2)	Perceived Ease of Use Perceived Ease of Use affects the Intention to Use	0.46	Has no statistical significance
3rd Hypothesis (H3)	Perceived Ease of Use affects the Perceived Usefulness	0.31	Has statistical significance
4th Hypothesis (H4)	Intention to Use affects the Use Behaviors	0.00	Has no statistical significance

Table 4.5 Conclusion of hypothesis test results. (Cont.)

Hypothesis	**Description**	**β Value**	**Results**
5th Hypothesis (H5)	System Support affects the Perceived Usefulness of System Use	0.01	Has no statistical significance
6th Hypothesis (H6)	System Quality affects the Perceived Usefulness of System Use	0.27	Has no statistical significance
7th Hypothesis (H7)	System Support affects the System Quality	0.52	Has statistical significance
8th Hypothesis (H8)	Output Quality affects the Perceived Usefulness of System Use	0.16	Has no statistical significance
9th Hypothesis (H9)	Job Relevance affects the Perceived Usefulness of System Use	0.09	Has no statistical significance
10thHypothesis (H10)	Computer Skills affects the Perceived Usefulness of System Use	0.13	Has no statistical significance

The hypothesis test about direction connection among the variables of model in the 1st, 2nd, 4th, 5th, 6th, 8th, 9th and 10th hypothesis had no statistical significance. Moreover, the description of model correlation as overall image in terms of intention to use the value was equal to R^2 = 20%. In terms of system quality the value was equal to R^2 = 27% and in terms of perceived usefulness the value was equal to R^2 = 22%. Hence, the purposes of the research which aimed to study the acceptance level of information technology, factors affecting and influencing the acceptance, problems and obstructions towards the acceptance of information technology on the use of annual budget plan system of the Department of Industrial Promotion. The analysis results supported the conceptual principle of Technology Acceptance Model 2 which believes that the use behaviors of persons in terms of acceptance on information technology towards system use are expected to have better intention towards the acceptance and technological use.

CHAPTER V
RESULTS DISCUSSION AND RECOMMENDATIONS

The research of acceptance of information technology on the use of annual budget plan system of the Department of Industrial Promotion aimed to study the acceptance level of information technology, factors affecting and influencing the acceptance, problems and obstruction towards the acceptance of information technology towards the use of annual budget plan system of the Department of Industrial Promotion as well as recommending the ways to create the acceptance of information technology towards the organization.

The sample group used in this research included civil servants, governmental employees and service contractors relevant to the system use 40 persons totally from all 45 persons. The instrument was questionnaire for data collection. The researcher developed the questionnaire based on the factors learned from documents and related literature reviews then the data got from the questionnaire was analyzed to find the Percentage, Frequencies, Mean, Standard Deviation, to find the coefficient value of Cronbach's Alpha and analyzed the Structural Equation Modeling (SEM). According to the data analysis the research analysis, the research results can be concluded as follows:

5.1 Discussion of Research Results

According to the data analysis in the Chapter 4, the data analysis identified 2 factors having statistical significance which had 3 hypotheses having statistical significance including 1 factor in the TAM 2 Model, which was perceived ease of use. The hypotheses which had the statistical significance included the 2nd hypothesis (H2), 3rd hypothesis (H3) and 1 external factor which were system support. The hypothesis which had statistical significance included the 7th hypothesis (H7) which affected the intention to use expressing the use behaviors and use acceptance. The analysisand

results discussion can be concluded as follows:

Perceived ease of use this is the factor having the statistical significance affecting the intention to use and affecting the perceived usefulness which identified the use behaviors and system use acceptance. The research results revealed that such factors had 2 hypotheses which had the statistical significance including 2nd hypothesis (H2): perceived ease of use affected the intention to use ($\beta = 0.46$ $p < 0.01$) and 3rd hypothesis (H3): perceived ease of use affected the perceived usefulness ($\beta = 0.31$, $p < 0.01$). When the users perceived that the annual work plan system was easy to sue and useful, therefore it affected the users to have the intention to use which identified the use behaviors of the system increasingly. This is in accordance with the conceptual framework of TAM 2. According to the data analysis from the questionnaire, it was found that most of the responders gave the opinion level towards the perceived ease of use at the high level (3.46%). This identified that such factor was the part to push the positive results towards the perceived usefulness and intention to use. This is in accordance with the research of Tanchanok Kunnatee (2010) which studied about attitudes of commercial bank customers towards the financial transaction through internet banking in Pai District, Maehongsorn province. The study results revealed that the perceived ease of use on internet banking service affected the attitudes leading to the intention to use of internet banking. The study results suggest that if the customers perceive the ease of use this will affect the intention to use.

System Support this is the factor having the statistical significance which affected the system quality. The study results were found that such factor had 1 hypothesis having the statistical significance, which was the 7th hypothesis (H7): system support affected the system quality ($\beta = 0.52$, $p < 0.001$). When the users got the system support it affected the users to use the system increasingly. Therefore, it caused the development and improvement towards the system in order to be appropriate for the use, which would affect the system to have more quality. This is in accordance with the conceptual framework of TAM 2 Model. Moreover, the data analysis from the questionnaire revealed that most of the responders gave the opinion level towards the factor of system support at the high level (3.59%). This identified that such factor was the part to push the positive results to the system quality and the intention to use. This is in accordance with the research results of Wallaya

Charearnsrisan (2010) which studied about the acceptance and use of administration system of resource plan, Case study of medical supplies company the research results revealed that when the factor of system support was increased, it would affect the intention of use increasingly. This will cause the intention to use since when the users view that the system support is useful for the operation, the users will have the intention to use of the system increasingly.

Moreover, the data analysis in the Chapter 4 revealed that the factors affecting the acceptance and system use by having no statistical significance are as follows:

1. Factor of perceived usefulness; this included the 1st hypothesis (H1): perceived usefulness of system use affected the intention to use.
2. Factor of intention to use; this included the 4th hypothesis (H4): intention to use affected the use behaviors.
3. Factor of system support; this included the 5th hypothesis (H5): system support affected the perceived usefulness of system use.
4. Factor of system quality; this included the 6th hypothesis (H6): system quality affected the perceived usefulness of system use.
5. Factor of output quality; this included the 8th hypothesis (H8): output quality affected the perceived usefulness of system use.
6. Factor of job relevance; this included the 9th hypothesis (H9): job relevance affected the perceived usefulness of system use.
7. Factor of computer skills; this included the 10th hypothesis (H10): computer skills affected the perceived usefulness of system use.

This can be seen that such factors influenced the intention to use which represented the use behaviors and acceptance on the system use by having no statistical significance, namely such factors cannot be said that they influenced the intention to use for the system which had the statistical significance 0.05 down but it is possible that such factors may have the significance higher than 0.05 level.

Hence, the data analysis results gave the conclusion for answering the research purposes that most of the users using the budget plan system (3.76%) had the attitudes and acceptance level of system use at the high level. The factors affecting and influencing the acceptance and system use consisted of internal factors which included

the perceived ease of use, this was relevant and influenced the intention to use and perceived usefulness. For external factor, this included the system support which was relevant and influenced the system quality. For the problems and it was found that most of the problems included creating the personnel motivation to participate the development and system use from the training management administrators, spare data storage in case the system had problems so that the spare data could be retrieved to use the system connection, basic problem solving about self-computer use, learning of system use and system flexibility. According to the data analysis from the questionnaire it was found that most of the responders gave such opinion at the moderate level. Such problem helped push the positive and negative results towards the system use which would affect the system use to cause the lack of continuousness, ignorance of value or usefulness of the usage and cause the ineffectiveness and inefficiency through the operation.

5.2 Recommendations

5.2.1 Recommendations in Significant factors

According to the research results it was found that the factors of perceived usefulness, perceived ease of use and system support influenced the intention to use, therefore the recommendations towards the related authorities are that if the acceptance and continuously system use is needed, it should be created by the system which considers the usefulness of use, ease of use which should not be too complicated. Moreover, it should be considered on related external factors and influenced the system use since these are the crucial points which make the users have the positive attitudes and affect the system use have more effectiveness.

5.2.2 Recommendations in insignificant factors

The organization should create the motivation to the personnel to realize that the organization perceives the significance of personnel who can use the operational system effectively as expected. This can be done by giving the admiration or giving rewards to the persons who can operate in accordance with the goal set.

For the motivation it can help the employees use the system more effectively in order to create the effective work and create the self-esteem to get good compensation and position advancement. Moreover, the organization should improve and develop the system to be able to support the changing technologies and support the current operation. In addition, it should have the spare data storage. When there are some problems with the system the spare data can be operated instead as well as developing the system to be stable and can respond the needs of use quickly. And the system should be flexible for operation in various terms. Moreover, the organization should organize the training to give knowledge to the users and authorities continuously in order to learn that the system is important to the operation and how much it affects the organization. Moreover, it should describe the procedures of use in various parts and create the manual used with the perfect and current system for the authorities. In addition it should have the competence test of system use both before and after training. In order to observe that how much the users have knowledge sufficient to use the system for operation.

For the factors influencing the intention to use by having no statistical significance this factor cannot be said that it influenced the intention to use at the system which had the significance of 0.05 level down, however it is possible that such factor had the significance at the level more than 0.05. The factor without statistical significance may have the relationship and influence the system use or it may have the interaction among the variables such as factor of perceived usefulness etc. According to the data analysis it was found that there had no the statistical significance.

However, such factors might be influenced and affected the intention to use. When the users perceive that the system use is useful and it will affect the attitudes towards the system use increasingly. On the other hand such factor has no statistical significance which is not affected the attitudes of system use. This is in accordance with the research of Jaruwan Teschim (2014) which studied about the acceptance and intention to use the Geographic Information Technology System (GIS) in the Metropolitan Waterworks Authority (Thailand), the research results found that when the GIS technology was perceived that it had more usefulness, it did not affect the intention of use on the GIS technology use. This is not in accordance with the conceptual framework of TAM Model which can be concluded that in the context of

governmental organization the perception of technology usefulness did not affect the attitudes or intention to use hence this should have the study in terms of factors which have not significance towards the use in order to take the information got from the study to be used as the ways of plan, development and encouragement of system use further.

5.3 Future Related Research

For the further research it should have the study in terms of factors affecting and influencing the behaviors of intention towards the system use in order to bring the information to improve and develop the system to be effective and in accordance with the operation more. Moreover, it should have the data collection and analysis of system use results in the next year continuously. This is because each year there is the adjustment and alteration of authorities for the operation, structural adjustment of operation or procedures of operation as well as system development in various parts. This will cause the change of operation. Therefore, the data should be kept each year to be used for being the plan of operation and plan of system development to support change in various terms which will be happen in the future in order to be more beneficial.

Moreover, such study used the questionnaire as the instrument for data collection. This is only the quantitative data. Therefore, for the next research it should have the study in terms of qualitative research as well in order to get the in-depth information for analysis more as well as the study of data analysis on factors having no statistical significance. This is because some factors may have the relationship and influence towards the system use or it may have the interaction among the variables affecting the acceptance towards the system use and to make the research varied which can be applied to be appropriated to the organization further.

REFERENCE

Adisak Tisanont. (2011). Theories of education. [Online]. Retrieved 20 September 2013, from: http://kruoong.blogspot.com/p/blog-page.html.

Bueno, S., & Salmeron, J.L. (2008). TAM-Based Success Modeling in ERP. *Interacting with Computers*, 20(6), 515-523.

Cataleeya Petchchareanrat. (2011). Factors in the Acceptance and the Use of the New Cloud Computing-Based Intranet System: A case study on Thai Beverage Public Company Limited. [Online]. Retrieved 21 September 2013, from: http://www2.citu.tu.ac.th/citu/www/sites/all/themes/maxx/researchstudent/Cattaleeya.pdf.

Chanchai Pingkhuntod. (2009). A Study of the Relationship Between Administration on Good Governance in Educational Institute and Satisfaction of the Educational Institute Task Administration under Nakhon Ratchasima Educational Service Area Office 1-7 as Perceived by Teachers. [Online]. Retrieved 29 September 2013, from: http://202.28.199.20/tdc/dccheck.php?Int_code=4&RecId =553&obj_id=5407&showmenu=no.

Chureeporn Tongtawai. (2012). Service Quality Factors that Influence the Acceptance of Outsourcing Services in Small and Medium-sized Enterprises (SMEs): A Case of Application Development Outsourcing. [Online]. Retrieved 20 September 2013, from: http://libdcms.nida.ac.th/thesis6/2555/b176372.pdf.

Chuttur, Mohammad. (2009). Overview of the Technology Acceptance Model: Origins, Developments and Future Directions. [Online]. Retrieved September 2013, from http://sprouts.aisnet. org/785/1/tamreview.pdf.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319-339.

Davis, F. D. (1993). User Acceptance of Information Technology: System characteristics, user perceptions and behavioral impacts. *International Journal of Man-Machine Studies*, 38(3), 475-487.

Herzberg, Frederick, Bernarol and Synderman, Barbara Bloch. (1959). The Motivation to Work. New York: John Wiley and Sons, lnc.

Holden, R.J., & Karsh, B.T. (2010). The Technology Acceptance Model : Its past and its future in health care. *Journal of Biomedical Informatics*, 43(1), 159-172.

Jeerapan Jarerat. (2012). Requirements Development Knowledge of Computer and Information Technology for the Performance of Nongkhai Primary Educational Service Area Office 1. [Online]. Retrieved 28 September 2013, from: http://202.28.199.16/tdc/login.php?Intcode=54&RecId=14551&objid=40173.

Kamolrat Intaratat. (2007). Information Technology and Communication Theory. Bangkok: N.D.

Kantaya Permpol. (2007). Factors Affecting the Job Expectation and the Job Satisfaction of the Immigration of Suvannabhumi Airport Check Point. [Online]. Retrieved 25 August 2013, from: research.dusit.ac.th/menu/abstra/abstract/full/social/kantaya/ch2.pdfresearch.dusit.ac.th/menu/abstra/abstract/full/social/kantaya/ch2.pdf.

Kannika Saisin. (2012). Current Conditions, Problems and Needs of Nongkhai Technical College's Staff in Using Information Technology. [Online]. Retrieved 28 September 2013, from: http://tdc.thailis.or.th/tdc/dccheck.php?Int_code=54&RecId=14549&obj_id=40171&showmenu=no.

Kotler, E. L. and H. L. Armstrong. (2002). Citizen Evaluation and Urban Management: Services Delivery in an Era of Protest. Harper & Row. New York.

Lee, D., Lee, S.M., Olson, D.L., & Chung, S.H. (2010). The Effect of Organizational Support on ERP Implementation. *Industrial Management and Data System*, 110(2), 269-283.

Lin, H.F. (2010). An Investigation into the Effects of IS Quality and Top Management Support on ERP System Usage. *Total Quality Management and Business Excellence*, 21(3), 335-349.

Maslow, Abraham. (1970). Motivation and Personnality. New York: Harper and Row Publishers.

Nattapong Somsoros. (2010). Information and Communication Technology Acceptance of Officers in Regional Revenue Office4. Degree of Master of Science, Suan Sunandha Rajabhat University.

Nion Singhiranreaung. (2012).Customers Behavior and Satisfaction Affected By Managerial Administration of Fresh Coffee Shops in Amphoe Mueang. [Online]. Retrieved 29 September 2013, from: http://202.28.199.20/tdc/dccheck.php?Int_code=4&RecId=915&obj_id=7497&showmenu=no.

Nisanart Chanarpat. (2011). The Satisfaction of the People Towards the Tax Collection Service of Phutthaisong Sub-district Municipality, Phutthaisong Distrct, Buriram Provnce. [Online]. Retrieved 29 September 2013, from: http://202.28.199.20/tdc/dccheck.php?Intcode=34&RecId=2736&obj_id=26024&showmenu=no.

Nuttakritta Chitnork. (2008). Apartment Residents' Satisfaction with Service of Narong Mansion Company Limited. [Online]. Retrieved 28 February 2013, from: http://www.pnru.ac.th/offi/arit/uploadfiles/uploadfile/44/03b2a539b72d7a09 58bbb7d3888ffb90.pdf.

Pantipa Aedam. (2006).Technology Acceptance in Public Sector A Case Study: The use of ERP in Electricity Generating Authority of Thailand. Degree of Master of Science, Thammasar University.

Opas Aiamsiriwong. (2008). Computer Science and Information Technology. Bangkok : se-ed ucation.

Pattravadee Wongsumet. (2013). Factors Influencing the Adoption of Web-Based Learning System. [Online]. Retrieved 25 August 2013, from: http://www.bu.ac.th/knowledgecenter/executive_journal/july_sep_13/pdf/aw01.pdf

Pathomporn Suksa-ard. (2008). Problems in Using Information Technology for Administration of the Primary School Administrators in Nonthaburi Educational Service Office Area 2. Master paper, M.Ed. (Educational Administration). Bangkok : Graduate School, Chandrakasem Rajabhat University

Phra Wittaya Kongprab. (2010). The Fundamental Information Technology Acceptance of Teachers in Religious Study School (Group 1), Office of National Buddhism. Degree of Master of Science, Suan Sunandha Rajabhat University.

Payap University. (2009). Introduction to Technology Management Office English. [Online]. Retrieved 29 August 2013, from: http://courseware.payap.ac.th/docu/sc312/lesson1/lesson01.htm.

Richard P. Bagozzi and Pual R. Warshaw. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science* (35:8), pp. 982-1003.

Rutairat Chidmongkol. (2008). Factors Affecting on Achievement Motivation of Nursing Students At Boromarajonani College of Nursing, Udonthani. [Online]. Retrieved 25 September 2013, from: http://www.tcithaijo.org/index.php/tnaph/article/view/4843/4183.

Sasiporn Meaunsrichai. (2012). Factors Affecting the Acceptance of ERP Software from the perspective of Accounting Users. [Online]. Retrieved 25 September 2013, from: http://digi.library.tu.ac.th/thesis/ac/1199/title-biography.pdf.

Singha Chweesuk. (2012). Acceptance Information Technology Theory. [Online]. Retrieved 25 September 2013, from: http://journal.it.kmitl.ac.th/getFile.php?articleId=4fc7969f1698b87278000000.

Siriporn Thitalampoon. (2010). Technology Acceptance Model for Customer Service Technology of Retail Industry in Thailand. Degree of Master of Science, Mahidol University.

Sommai Piatanom. (2008). Satisfaction of the Students in Obtaining the Services of Nakornpathom Rajabhat University. [Online]. Retrieved 25 September 2013, from: http://home.npru.ac.th/sommay/ebooks/ book1.pdf.

Suan Dusit Rajabhat University. (2007). Application of Information Technology. Bangkok : Suan Dusit Rajabhat University.

Suksan Phrombunreung, (2010). The Development of Database Systems of Office Equipment for Academic Resource Center at Mahasarakham University. Mahasarakham : Academic Resource Center, Mahasarakham Universiry.

Sommai Piatanom. (2008). Satisfaction of the Students in Obtaining the Services of Nakornpathom Rajabhat University. [Online]. Retrieved 25 September 2013, from: http://home.npru.ac.th/sommay/ebooks/ book1.pdf.

Suan Dusit Rajabhat University. (2007). Application of Information Technology. Bangkok : Suan Dusit Rajabhat University.

Suksan Phrombunreung, (2010). The Development of Database Systems of Office Equipment for Academic Resource Center at Mahasarakham University. Mahasarakham : Academic Resource Center, Mahasarakham Universiry

Suttiluck Chanasuk et. (2012). The Acceptance and Culture of Information and Communication Technology in Thai Public Organizations. Degree of Master of Science, Phranakhon Rajabhat University.

Tanwin Na Nakorn. (2011). The opinion of students for information technology service at Deebukphangnga Wittayayon School. [Online]. Retrieved 28 September 2013, from: http://dcms.thailis.or.th/tdc/dccheck.php?Intcode =28&RecId=1070&obj_id=10183&showmenu=no.

Vathanophas, V., Krittayaphong, N., & Klomsiri, C. (2008). Technology Acceptance Toward E-Government Initiative in Royal Thai Navy. *Transforming Government : People, Process and Policy*, 2(4), 256-282.

Venkatesh, V., & Davis, F.D. (2000). Theoretical Extension of the Technology Acceptance Model: Four longitudinal field studies. *Management Science*, 46(2), 186-204.

Vroom, H Victor. (1964). Work and Motivation. Now York: Wiley and Sons Inc.

Wasan Jampapaeng. (2010).Technology Acceptance in Public Sector A Case Study: The use of ERP in Electricity Generating Authority of Thailand. Degree of Master of Science, Thammasart University.

Winai Kaewnoi. (2012). Budget Plan. [Online]. Retrieved 30 August 2013, from: http://admission.bu.ac.th/image/self%20development.htm

Wimol Mirasing. (2012). Some Factors Affecting Information Technology Utilization to Enhance Learning in the Class Room of the Fourth Interval Students in Schools Under the Basic Education Commission, Chainat Educational Service Area Office. [Online]. Retrieved 23 September 2013, from: http://202.28.199.20/tdc/dccheck.php?Int_code=31&RecId=2057&obj_id=23932&showmenu=no.

Wirat Amornlertwit. (2009). Development Information Technology System and Communication of Department of Industrial Promotion. Bangkok: Department of Industrial Promotion.

Wuttichai Bunyawan. (2009). Development of Information Technology. [Online]. Retrieved 15 August 2013, from: http://admission.bu.ac.th/image/self%20development.htm.

Yamane, Taro. (1967). Statistics: An Introductory Analysis. Third editio. Newyork: Harper and Row Publication.

Yeun Puworawan. (2009). Online Information Distribution System. [Online]. Retrieved 9 September 2013, from: http://vivaldi.cpe.ku.ac.th:443/projectdoc/bitstream/123456789/196/1/PDF_Online%20Information%20Distribution%20System%40By%20Sasithorn%2049653850.pdf.

_____. (2009) Information Technology for Life Course. [Online]. Retrieved 21 October 2013, from: http://www.aec.snru.ac.th/UserFiles/File/aec/ict%20for%20life/1.doc.

APPENDICES

APPENDIX A
QUESTIONNAIRE

แบบสอบถามเพื่อการวิจัย

เรื่อง การยอมรับการใช้งานระบบแผนงบประมาณประจำปีของกรมส่งเสริมอุตสาหกรรม

<u>คำชี้แจง</u>

แบบสอบถามชุดนี้สร้างขึ้นเพื่อใช้ประกอบการค้นคว้าอิสระ ซึ่งเป็นส่วนหนึ่งของการศึกษาตามหลักสูตรวิทยาศาสตรมหาบัณฑิต สาขาเทคโนโลยีการจัดการระบบสารสนเทศ มหาวิทยาลัยมหิดล โดยมีวัตถุประสงค์เพื่อศึกษาและวิจัยในประเด็นที่เกี่ยวกับระดับการรยอมรับเทคโลยี ปัจจัยที่มีความสัมพันธ์และมีอิทธิพลต่อการยอมรับเทคโนโลยี ปัญหาและอุปสรรคต่อการยอมรับเทคโนโลยี เพื่อเป็นแนวทางสำหรับการวางแผน ปรับปรุง และพัฒนาระบบให้มีคุณภาพและประสิทธิภาพต่อการดำเนินงาน รวมทั้งเป็นแนวทางในการสนับสนุน เพิ่มขีดความสามารถและพัฒนาบุคลากรให้มีคุณสมบัติที่เหมาะสมและรองรับต่อการเปลี่ยนแปลงทางด้านเทคโนโลยีสารสนเทศที่จะนำมาใช้ในการปฏิบัติงาน

ดังนั้นเพื่อให้ได้ข้อมูลที่ก่อให้เกิดประโยชน์อย่างสูงสุด ผู้วิจัยจึงใคร่ขอความกรุณาจากท่านในการตอบแบบสอบถามทุกข้อให้ตรงตามความเป็นจริงทุกประการ และขอรับรองว่าข้อมูลที่ท่านตอบถือเป็นความลับ นำเสนอเฉพาะภาพรวมและใช้เพื่อวัตถุประสงค์ในการศึกษาวิจัยเท่านั้น ซึ่งแบบสอบถามชุดนี้ประกอบด้วย 2 ส่วน ดังนี้

ส่วนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

ส่วนที่ 2 ทัศนคติต่อการยอมรับและใช้งานระบบ

ผู้วิจัยขอขอบพระคุณในความอนุเคราะห์ของท่านที่กรุณาสละเวลาอันมีค่า เพื่อแสดงความคิดเห็นในแบบสอบถามมา ณ ที่นี้ด้วย

ส่วนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

<u>คำชี้แจง</u> กรุณาทำเครื่องหมาย ✓ ลงในช่อง [ ] ที่ตรงตามความเป็นจริงของท่านมากที่สุด

1. เพศ

[ ] หญิง [ ] ชาย

2. อายุ

[ ] 20 – 30 ปี [ ] 31 – 40 ปี [ ] 41 – 50 ปี

[ ] 51 – 60 ปี [ ] มากกว่า 60 ปี

3. วุฒิการศึกษาสูงสุด

[ ] ต่ำกว่าปริญญาตรี [ ] ปริญญาตรี [ ] ปริญญาโท

[ ] ปริญญาเอก

4. ตำแหน่งงาน

[ ] ข้าราชการ [ ] พนักงานราชการ [ ] จ้างเหมาบริการ

5. ประสบการณ์ในการทำงาน

[ ] ต่ำกว่า 1 ปี [ ] 1 – 5 ปี [ ] 6 – 10 ปี

[ ] 11 – 15 ปี [ ] มากกว่า 15 ปี

6. ความถี่ในการใช้งานระบบ

[ ] 1 – 2 ครั้ง/สัปดาห์ [ ] 3 – 4 ครั้ง/สัปดาห์ [ ] 5 – 6 ครั้ง/สัปดาห์

[ ] ใช้ทุกวัน

7. ท่านเรียนรู้วิธีการใช้งานและการเข้าถึงข้อมูลในระบบจากแหล่งใด (ตอบได้มากกว่า 1 ข้อ)

[ ] ศึกษาจากเอกสารและคู่มือที่หน่วยงานจัดทำขึ้น

[ ] สอบถามจากเจ้าหน้าที่ที่ดูแลระบบ

[ ] สอบถามจากเพื่อน

[ ] จากการเข้าอบรมหรือฟังบรรยาย

[ ] ทดลองใช้ด้วยตัวเอง

[ ] อื่นๆ (โปรดระบุ) .....

ส่วนที่ 2 ทัศนคติต่อการยอมรับและใช้งานระบบ

<u>คำชี้แจง</u> กรุณาทำเครื่องหมาย ✓ ลงในช่อง [ ] ที่ตรงตามความเป็นจริงของท่านมากที่สุด

ที่	ทัศนคติต่อการยอมรับและใช้งานระบบ	ระดับความคิดเห็น				
		5 มากที่สุด	4 มาก	3 ปานกลาง	2 น้อย	1 น้อยที่สุด
การสนับสนุนการใช้งานระบบ (System Support)						
1	ผู้บริหารให้ความสำคัญต่อการใช้งานระบบ					
2	ผู้บริหารมีการกำหนดแผนนโยบายในการพัฒนาและใช้งานระบบอย่างชัดเจน					
3	ผู้บริหารมีการสร้างแรงจูงใจบุคลากรให้เข้ามามีส่วนร่วมในการพัฒนาและใช้งานระบบ					
4	หัวหน้างานให้การสนับสนุนการใช้งานระบบ					
5	มีเจ้าหน้าที่ภายในหน่วยงานหรือเจ้าหน้าที่พัฒนาระบบคอยให้ความช่วยเหลือและให้คำปรึกษาแนะนำ					
6	หน่วยงานต่างๆมีการประสานงานและให้ความร่วมมือในการพัฒนาระบบ					
7	ท่านได้รับการอบรมวิธีการใช้และฟังก์ชั่นต่างๆ					
8	ท่านสามารถนำความรู้จากการฝึกอบรมมาถ่ายทอดให้กับเพื่อพนักงานได้					
9	มีการจัดอบรมการใช้งานระบบสม่ำเสมอ					
คุณภาพของระบบ (System Quality)						
1	มีระบบรักษาความปลอดภัยและกำหนดสิทธิ์ในการเข้าถึงข้อมูลของผู้ใช้งานอย่างชัดเจน					
2	มีระบบจัดเก็บข้อมูลสำรอง ในกรณีที่ระบบเกิดปัญหาขัดข้องสามารถนำข้อมูลสำรองมาใช้ได้					
3	การเชื่อมต่อของระบบมีความเสถียร					
4	ระบบมีความรวดเร็วสามารถตอบสนองต่อการใช้งานของผู้ใช้ได้อย่างมีประสิทธิภาพ					

ที่	ทัศนคติต่อการยอมรับและใช้งานระบบ	ระดับความคิดเห็น				
		5 มากที่สุด	4 มาก	3 ปานกลาง	2 น้อย	1 น้อยที่สุด
คุณภาพของผลลัพธ์ (Output Quality)						
1	ข้อมูลที่ได้จากระบบมีความถูกต้องและน่าเชื่อถือ					
2	ข้อมูลที่ได้จากระบบมีความทันสมัยตลอดเวลา					
3	ระบบช่วยให้สามารถผลิตรายงานที่ถูกต้องและนำมาประกอบการตัดสินใจในการปฏิบัติงานได้					
4	ระบบช่วยให้ท่านได้ข้อมูลที่ถูกต้องเพื่อใช้ในการปฏิบัติงานในหน้าที่					
ความเกี่ยวข้องกับงานที่ทำ (Job Relevance)						
1	ลักษณะงานของท่านมีความเกี่ยวข้องกับการใช้งานระบบ					
2	ระบบช่วยปรับรูปแบบการทำงานให้กระชับรวดเร็วและมีความคล่องตัวมากขึ้น					
ทักษะด้านคอมพิวเตอร์ (Computer Skill)						
1	ท่านมีความรู้และสามารถใช้งานโปรแกรมคอมพิวเตอร์พื้นฐาน เช่น Microsoft Office, Internet, Intranet ได้เป็นอย่างดี					
2	ท่านสามารถเรียนรู้และใช้งานเทคโนโลยีคอมพิวเตอร์หรือเทคโนโลยีใหม่ๆ ได้ด้วยตนเอง					
3	ท่านสามารถแก้ไขปัญหาเบื้องต้นเกี่ยวกับการใช้งานคอมพิวเตอร์ได้ด้วยตนเอง					
การรับรู้ถึงประโยชน์ที่ได้รับ (Perceived Usefulness)						
1	ระบบช่วยให้การทำงานมีประสิทธิภาพและประสิทธิผลมากขึ้นกว่าเดิม					

ที่	ทัศนคติต่อการยอมรับและใช้งานระบบ	ระดับความคิดเห็น				
		5 มากที่สุด	4 มาก	3 ปานกลาง	2 น้อย	1 น้อยที่สุด
2	ระบบช่วยให้สามารถใช้ข้อมูลร่วมกับโปรแกรมคอมพิวเตอร์อื่นได้เป็นอย่างดี					
3	ระบบช่วยให้ข้อผิดพลาดในการทำงานลดน้อยลง					
4	ระบบช่วยให้การค้นหาข้อมูลหรือดึงรายงานมีความรวดเร็วกว่าการค้นหาข้อมูลในเอกสาร					
5	ระบบช่วยลดปริมาณและลดจำนวนการใช้กระดาษขององค์กร					
การรับรู้ถึงความง่ายในการใช้งาน (Perceived Ease of Use)						
1	การใช้งานและขั้นตอนการทำงานของระบบมีความชัดเจน เข้าใจง่าย					
2	ท่านเข้าใจและเรียนรู้การใช้งานระบบได้					
3	ท่านต้องใช้ระยะเวลาและความพยายามในการเรียนรู้การใช้งานระบบอย่างมาก					
4	ท่านคิดว่าการใช้งานระบบเป็นเรื่องที่ง่าย ไม่ต้องใช้ทักษะความรู้และความชำนาญ					
5	ระบบมีความยืดหยุ่น สามารถใช้ได้สะดวก					
ความตั้งใจในการใช้งาน (Intention to Use)						
1	ท่านมีความตั้งใจและมุ่งหมายที่จะใช้งานระบบอย่างต่อเนื่อง					
2	ท่านตั้งใจที่จะเข้าใช้งานระบบเมื่อต้องการบันทึกข้อมูลและเมื่อต้องการข้อมูลเท่านั้น					

ข้อเสนอแนะเพิ่มเติม

.....

.....

.....

APPENDIX B
SPSS ANALYSIS

รายละเอียดผลการวิเคราะห์ทางสถิติ (SPSS)

1. วิเคราะห์ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

เพศ

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	หญิง	29	72.5	72.5	72.5
	ชาย	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

อายุ

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20 -30 ปี	11	27.5	27.5	27.5
	31 -40 ปี	11	27.5	27.5	55.0
	41 -50 ปี	13	32.5	32.5	87.5
	51 -60 ปี	5	12.5	12.5	100.0
	Total	40	100.0	100.0	

วุฒิการศึกษาสูงสุด

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ปริญญาตรี	36	90.0	90.0	90.0
	ปริญญาโท	4	10.0	10.0	100.0
	Total	40	100.0	100.0	

ตำแหน่งงาน

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ข้าราชการ	18	45.0	45.0	45.0
	พนักงานราชการ	11	27.5	27.5	72.5
	จ้างเหมาบริการ	11	27.5	27.5	100.0
	Total	40	100.0	100.0	

ประสบการณ์ในการทำงาน

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ต่ำกว่า 1 ปี	3	7.5	7.5	7.5
	1 - 5 ปี	11	27.5	27.5	35.0
	6 - 10 ปี	15	37.5	37.5	72.5
	11 - 15 ปี	3	7.5	7.5	80.0
	มากกว่า 15 ปี	8	20.0	20.0	100.0
	Total	40	100.0	100.0	

ความถี่ในการใช้งานระบบงาน

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 - 2 ครั้ง/สัปดาห์	3	7.5	7.5	7.5
	3 - 4 ครั้ง/สัปดาห์	6	15.0	15.0	22.5
	5 - 6 ครั้ง/สัปดาห์	11	27.5	27.5	50.0
	ใช้ทุกวัน	20	50.0	50.0	100.0
	Total	40	100.0	100.0	

ศึกษาจากเอกสารและตคู่มือที่หน่วยงานจัดทำขึ้น

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ไม่เลือก	22	55.0	55.0	55.0
	เลือก	18	45.0	45.0	100.0
	Total	40	100.0	100.0	

สอบถามเจ้าหน้าที่ที่ดูแลระบบ

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ไม่เลือก	7	17.5	17.5	17.5
	เลือก	33	82.5	82.5	100.0
	Total	40	100.0	100.0	

สอบถามจากเพื่อน

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ไม่เลือก	17	42.5	42.5	42.5
	เลือก	23	57.5	57.5	100.0
	Total	40	100.0	100.0	

จากการเข้าอบรมหรือฟังบรรยาย

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ไม่เลือก	16	40.0	40.0	40.0
	เลือก	24	60.0	60.0	100.0
	Total	40	100.0	100.0	

ทดลองใช้ด้วยตนเอง

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ไม่เลือก	12	30.0	30.0	30.0
	เลือก	28	70.0	70.0	100.0
	Total	40	100.0	100.0	

อื่นๆ

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	ไม่เลือก	37	92.5	92.5	92.5
	เลือก	3	7.5	7.5	100.0
	Total	40	100.0	100.0	

2. วิเคราะห์ทัศนคติต่อการยอมรับและใช้งานระบบ

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ผู้บริหารให้ความสำคัญต่อการใช้งานระบบ	40	3	5	3.75	.588
ผู้บริหารมีการกำหนดแผนนโยบายในการพัฒนาและใช้งานระบบอย่างชัดเจน	40	2	5	3.68	.656
ผู้บริหารมีการสร้างแรงจูงใจบุคลากรให้เข้ามามีส่วนร่วมในการพัฒนาและใช้งานระบบ	40	1	5	3.33	.829
หัวหน้างานให้การสนับสนุนการใช้งานระบบ	40	3	5	4.10	.545

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
มีเจ้าหน้าที่ภายในหน่วยงานหรือเจ้าหน้าที่พัฒนาระบบคอยให้ความช่วยเหลือและให้คำปรึกษาแนะนำ	40	2	5	3.88	.822
หน่วยงานต่างๆมีการประสานงานและให้ความร่วมมือในการพัฒนาระบบ	40	2	5	3.67	.764
ท่านได้รับการอบรมวิธีการใช้และฟังก์ชั่นต่างๆ	40	1	5	3.35	1.001
ท่านสามารถนำความรู้จากการฝึกอบรมมาถ่ายทอดให้กับเพื่อนพนักงานได้	40	2	5	3.80	.723
องค์กรมีการจัดอบรมการใช้งานระบบสม่ำเสมอ	40	1	5	2.78	1.000
มีระบบรักษาความปลอดภัยและกำหนดสิทธิ์ในการเข้าถึงข้อมูลของผู้ใช้งานอย่างชัดเจน	40	3	5	4.15	.483
มีระบบจัดเก็บข้อมูลสำรอง ในกรณีที่ระบบเกิดปัญหาขัดข้องสามารถเรียกข้อมูลสำรองมาใช้ได้	40	1	5	3.20	.911
การเชื่อมต่อของระบบมีความเสถียร	40	1	5	3.38	.897
ระบบมีความรวดเร็วสามารถตอบสนองต่อการใช้งานของผู้ใช้ได้อย่างมีประสิทธิภาพ	40	1	5	3.42	.844
ข้อมูลที่ได้จากระบบมีความถูกต้องและน่าเชื่อถือ	40	2	5	3.82	.781
ข้อมูลที่ได้จากระบบมีความทันสมัยตลอดเวลา (Real time)	40	2	5	3.77	.733

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ระบบช่วยให้สามารถผลิตรายงานที่ถูกต้องและนำมาประกอบการตัดสินใจในการปฏิบัติงานได้	40	2	5	3.82	.747
ระบบช่วยให้ท่านได้ข้อมูลที่ถูกต้องเพื่อใช้ในการปฏิบัติงานในหน้าที	40	2	5	3.80	.687
ลักษณะงานของท่านมีความเกี่ยวข้องกับการใช้งานระบบ	40	3	5	4.32	.730
ระบบช่วยปรับรูปแบบการทำงานให้กระชับ รวดเร็วและมีความคล่องตัวมากขึ้น	40	2	5	4.00	.716
ท่านมีความรู้และสามารถใช้งานโปรแกรมคอมพิวเตอร์พื้Rนฐาน เช่น Microsoft Office, Internet,Intranet ได้เป็นอย่างดี	40	3	5	3.97	.733
ท่านสามารถเรียนรู้และใช้งานเทคโนโลยีคอมพิวเตอร์หรือเทคโนโลยีใหม่ๆได้ด้วยตนเอง	40	3	5	3.90	.672
ท่านสามารถแก้ไขปัญหาเบื้องต้นเกี่ยวกับการใช้งานคอมพิวเตอร์ได้ด้วยตนเอง	40	2	5	3.35	.834
ระบบช่วยให้การทำงานมีประสิทธิภาพและประสิทธิผลมากขึ้นกว่าเดิม	40	2	5	3.90	.591
ระบบช่วยให้สามารถใช้ข้อมูลร่วมกับโปรแกรมคอมพิวเตอร์อื่นได้เป็นอย่างดี	40	3	5	3.87	.563
ระบบช่วยให้ข้อผิดพลาดในการทำงานลดน้อยลง	40	3	5	3.90	.672
ระบบช่วยให้การค้นหาข้อมูลหรือดึงรายงานมีความรวดเร็วกว่าการค้นหาข้อมูลในเอกสาร	40	3	5	4.05	.552

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ระบบช่วยลดปริมาณและลดจำนวนการใช้กระดาษขององค์กร	40	2	5	3.70	.791
การใช้งานและขBนตอนการทำงานของระบบมีความชัดเจน เข้าใจง่าย	40	2	5	3.67	.730
ท่านเข้าใจและสามารถเรียนรู้การใช้งานระบบได้	40	2	5	3.75	.776
ท่านต้องใช้ระยะเวลาและความพยายามในการเรียนรู้การใช้งานระบบอย่างมาก	40	1	5	3.28	.877
ท่านคิดว่าการใช้งานระบบเป็นเรื่องที่ง่าย ไม่ต้องใช้ทักษะความรู้และความชำนาญ	40	2	5	3.28	.679
ระบบมีความยืดหยุ่นคล่องตัว สามารถใช้ได้สะดวก	38	2	5	3.34	.627
ท่านมีความตั้งใจและมุ่งหมายที่จะใช้งานระบบอย่างต่อเนื่อง	40	2	5	3.85	.700
ท่านตั้งใจที่เข้างานใช้ระบบ เมื่อต้องกำารบันทึกข้อมูลและเมื่อต้องการข้อมูลเท่านั้น	40	2	5	3.88	.853
Valid N (listwise)	38				

APPENDIX C
LISREL ANALYSIS

รายละเอียดผลการวิเคราะห์ทางสถิติ (LISREL)

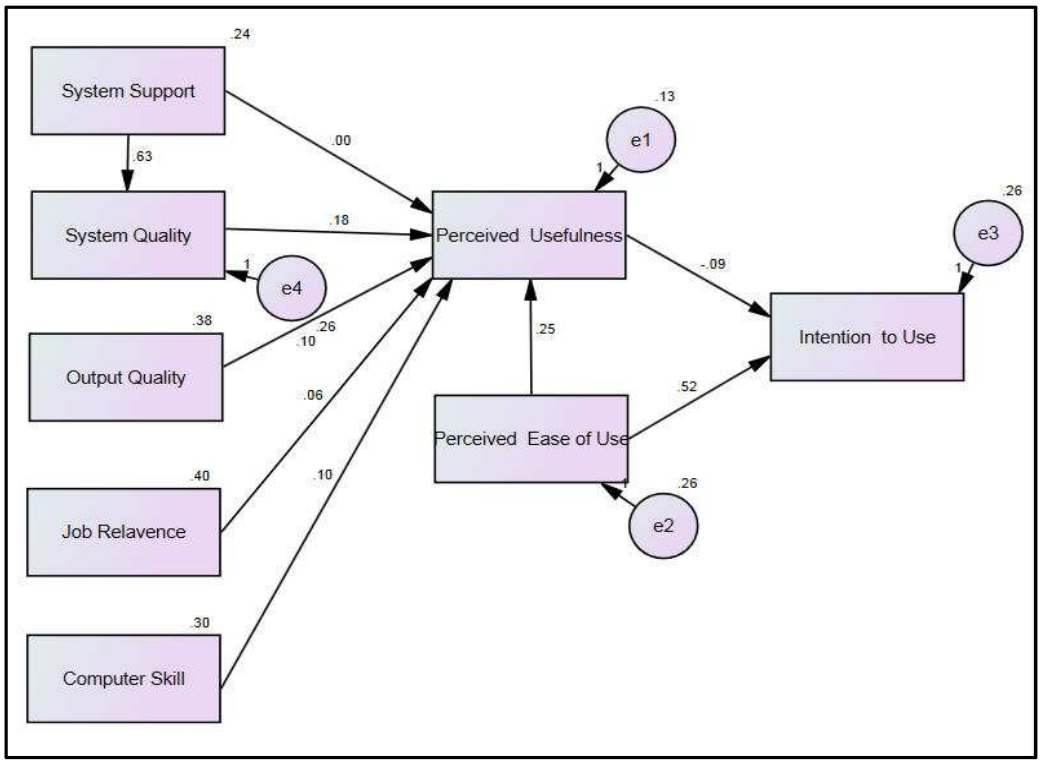
1. Correlation Coefficient.

	System Support	System Quality	Output Quality	Job Relevance	Computer Skill	PU	PEU	Intention to Use
System Support	1							
System Quality	.520**	1						
Output Quality	.332*	.505**	1					
Job Relevance	.124	.166	.345*	1				
Computer Skill	.473**	.145	.327*	.275	1			
PU	.409**	.481**	.459**	.304	.319*	1		
PEU	.663**	.533**	.563**	.378*	.375*	.570**	1	
Intention to Use	.296	.246	.058	-.093	.073	.179	.429**	1

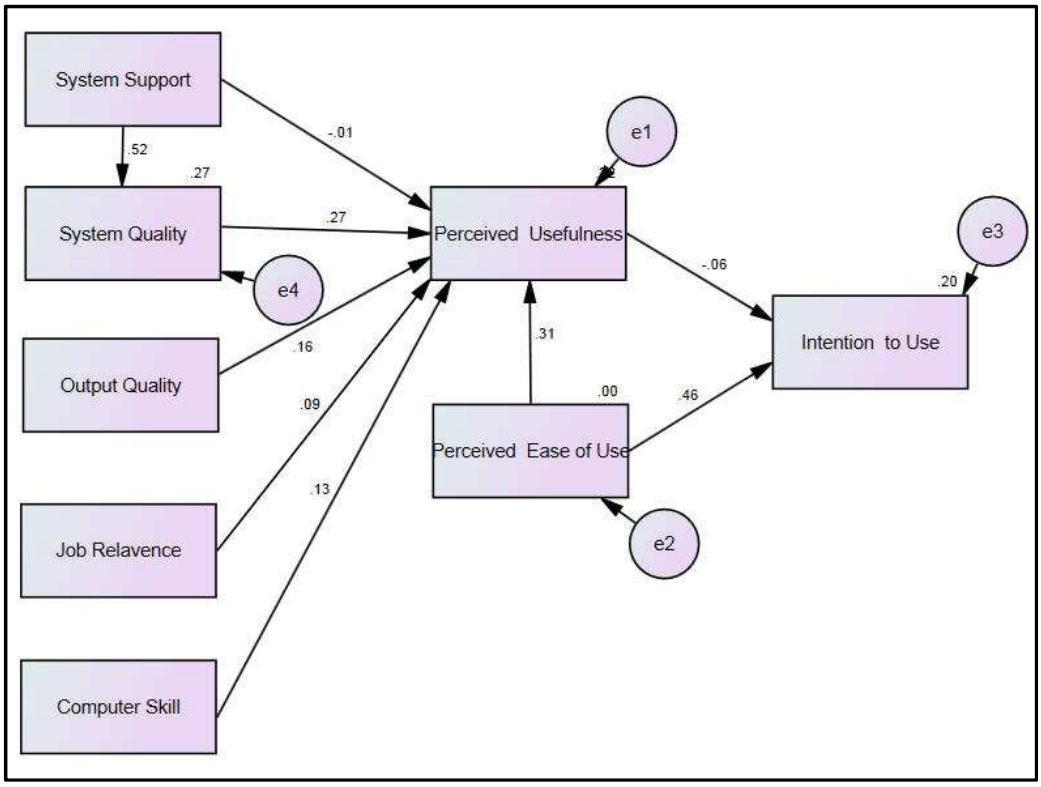
2. Model Result

Model fit	Recommended Value	Model Value
X2/df	<2.0	69.888/19
GFI	>0.9	.673
AGFI	<0.8	.381
NFI	>0.9	.360
NNFI (TLI)	<0.9	.077
RFI	<0.9	.057
IFI	<0.9	.436
RMR	<0.05	.084
RMSEA	<0.08	.262

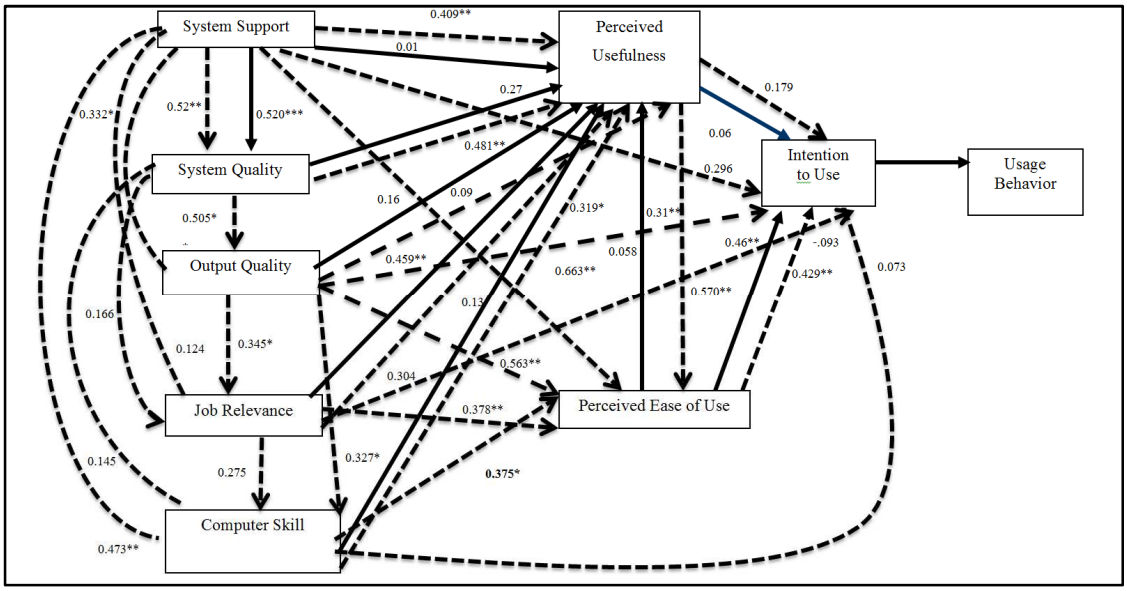
3. Unstandardized



4. Standardize



5. Correlation Analysis



BIOGRAPHY

NAME	Miss Phakamart Ruttanachon
DATE OF BIRTH	January 7, 1988
PLACE OF BIRTH	Songkhla, Thailand
INSTITUTIONS ATTENDED	Walailak University, 2007 - 2011 Bachelor of Science (Information Management) Mahidol University, 2012 – 2013 Master of Science (Technology of Information System Management)
HOME ADDRESS	30, Klongsai, Natawee, Songkhla, Thailand E-mail: Phakamart_r@hotmail.com
PUBLICATION / PRESENTATION	Ruttanachon P, Thammaboosadee S. Use Acceptance Annual Budgets Plan System of Department of Industrial Promotion.