Administration Of E-Invoicing Value Added Tax (Comparative Study between Indonesia and Australia)

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Analysis on Fees Exemption Policy of Land and Building Rights Acquisition in Jakarta

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Critical Success Factors In Implementing Employee Information System Based On E-Government In The Bureau Of Public Affairs At The Regional Secretariat Of West Java Province

Implementation of Billboard Tax Policy in the City of Bandung

Public-Private Partnership In Water Supply Of DKI Jakarta
**Critical Success Factors** in Implementing Employee Information System Based On E-Government in The Bureau of Public Affairs At The Regional Secretariat Of West Java Province

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**ABSTRACT**

This research aimed to identify critical success factors in the implementation of E-Government based on employee management information system in the Bureau of Public Affairs at the Regional Secretariat of West Java Province. Employee management information system is a process on managing information through the use of available resources within the organization. The formulation of the problem in this study is in its implementation in which various kinds of obstacles were found such as the difficulties in operating digital-based information system applications by each employee, also the inaccuracy of available data in information system. Qualitative method was used in this research by collecting data through literature review study, field research and interviewing four informants. They were the Head of the Public Affairs Bureau at the Regional Secretariat of West Java Province, the Head of Household Administration and Staffing, the administrator staff for management information system and a civil servant within the General Affairs Bureau. The research shows that the implementation of employee management information system based on e-government in the Bureau of Public Affairs at the Regional Secretariat of West Java province is not optimal because it has not been supported by competent human resources in the implementation of technology-based management information system therefore data accuracy is difficult to be achieved.

**Keywords** : Critical success factors; management information system; e-government; West Java Province.
INTRODUCTION

Within an organization, the existence of an employee management information system has become an inseparable part. It is a system used in processing and organizing data and information that benefits in supporting policy making. Personnel management information system is a process of managing information through the use of available resources within the organization. Management cannot ignore the information system because it directly influences how management make plans, manage its employees, make decisions and improve work targets that needs to be achieved.

Based on Law No. 5 of 2014, concerning Public Civil Servants, mandates to ensure the efficiency, integration, and accurate of data in the Management of Public Civil Servants, a National Civil Servant Information System is needed and is integrated among Government Agencies based on information technology. This must be met by organizations because, organizations always face demands for increased access, effectiveness, responsiveness, accountability, and transparency. (Wicaksono, 2019)

Therefore, we need information system that, beside all the data processing, but also for management functions in decision making (Suyitno, 2018).

Implementation of personnel management information systems through an application-based computerized program namely SIMPEG (Personnel Management Information System) in the Bureau of Public Affairs at the Regional Secretariat of West Java Province has been in used since early 2007. The SIMPEG application program has been used for managing staffing data for 12 years. Subsequently SIMPEG underwent an update, and the use of this application program was stopped and replaced with the West Java SIAp application program which is Sistem Informasi Aparatur Pemerintahan Provinsi Jawa Barat (West Java’s Government’s Civil Servant Information System). Both are based on information technology that has the function of managing personnel administration data from an agency. The managed data migrated data from SIMPEG to SIAp West Java. However, in the West Java SIAp application program, it is necessary to attach digital archives. Personnel Management Information System (SIMPEG) is very important in providing services for all existing personnel, because employees are an important asset in a well-managed organization (Denaya A, 2019).

The purpose of using an employee management information system based on the application of the West Java SIAp is to produce information on staffing data to assist leaders in planning formation, employee procurement, employee recruitment, planning the transfer of employee deployment and planning employees’ training in the future. As a result, this will provide accurate payroll data for employee expenditure planning, and helps smoothen administration. This information is data that has been processed so that it becomes an important form that is useful for the recipient and benefits as a basis for making decisions that can impact directly or indirectly in the future (Hartono, 2013).

E-government is a way for the government to use a new technology in the bureaucracy that can provide easy access for the government in terms of services and information. The implementation of good governance and the improvement of effective and efficient public services requires the existence of policies and
strategies for developing e-government) (Sari & Winarno, 2012). Development of E-Government based on Presidential Instruction No. 3 of 2003 is an effort to develop governance based on (using) electronics in order to improve the quality of public services effectively and efficiently.

In its application, the management information system based on e-government through the West Java SIAP application at the Bureau of Public Affairs, aims to facilitate employee data processing in order to produce accurate data, however the implementation did not run optimally. The information stored is still not the latest or updated information due to changes in data made by each employee and this is still ongoing and runs slow. Therefore, to help the organization focuses its resources in achieving organizational goals that have been set, the authors use Critical Success Factors (CSFs) or determinants of success, which are factors that must exist in the organization to be able to achieve its goals (Kustanti, 2014).

Being aware of the critical success factors in a management information system is very important as it can assist the management to focus on the organizations’ resources which will lead to goals accomplishments. Critical Success Factor (CSF) is a limited area that if fulfilled, will guarantee and ensure successful and competitive performance of individuals, departments or organizations (Rockart, 1982).

The problem formulated in this study is to discover how management information system based on e-government is being applied in the Public Affairs Bureau at the Regional Secretariat of West Java Province. Critical Success Factors (CSF) will review the critical factors in the organizational environment to define which influence the success and accomplishments of the organization. This study uses theoretical approach in explaining concepts, methods and research data to discuss the existing problems.

LITERATURE REVIEW

Based on the investigation and formulation of the existing problems, it is necessary to have a comparison of similar phenomenon in different perspectives. The research for comparison is a research conducted by (Al-Naimat et al., 2013) “The Critical Success Factors For E-government Implementation In Jordan”. The research method used was deductive approach. The result of this study identified critical success factors which were funding, information technology infrastructure, policy and legal issues, awareness, resistance to changes in vision and strategies, and also training. By acknowledging the factors, this will drive e-government to success and reduce performance measure related with the development of e-government in Jordan.

Another research was done by (Hussein et al., 2007) entitled “The Impact Of Technological Factors On Information System Success In The E-Government Context (Case Study in Malaysia)”. In this research, it is reveal that in Malaysia, the application of electronic governance is still new. However, in implementation, it worked well. The successful dimensions were measured by the quality of the system, the quality of information and the perceived benefits. Success factors are also supported by competent users, good information technology infrastructure, and a well-engaged system.

In addition, a research was conducted by (Kustanti et al., 2014) “An Analysis of Critical Success Factors in E-Procurement implementation at Probolinggo Regency”. This research used quantitative method. The results of this study are adjustments and evaluation of some of the CSF that were rejected by the respondents
especially the idea that all providers are capable to implement e-procurement in accordance with the regulations. Moreover, the technological standard did not influence significantly towards the implementation of e-procurement, which may also become obstacles.

Thus, there are similarities between the previous studies with this research. One of them is focusing on the use of technology through e-government with successful aspects perceived from critical success factors that can identify or focus on the organization’s resources to achieve its goals. On the other hand, one of the differences is this study focused on the use of management information system based on e-government at the Public Affairs Bureau at the Regional Secretariat at West Java Province.

“A Management Information System (MIS) is a human or machine system that is integrated to present information to support the operations, management and decision making functions in an organization” (Davis & Olson, 1984). While e-government according to Budi Rianto et al. (2012) is “a form of application which included the implementation of tasks and governance using telematics technology or information and communication technology”.

The focus of this study is the management information system at the Public Affairs Bureau in the Regional Secretariat at West Java Province by using the critical success factors aiming to find out the critical success factors in management information system because it can help the organization to focus on the resources they owned to accomplish the stated goals. In this study, the authors used the theory of critical success factors from (Rockart, 1982).

The use of this theory is based on the relevance of the theory to the indication of the problem discovered. In addition, the critical success factors proposed by Rockart (1982) are in accordance with the context of the application of employee management system information based on e-government in the Public Affairs Bureau at the Regional Secretariat of West Java Province.

Rockart John F (1982) stated four critical success factors that focused on organization’s resources to identify success or failure through the development of system information namely:

**Service (actual and perception)**
The actual service that is effective and efficient in the operating performance (system/terminal response time, timely information system development, and within the budget). Services involved perceptions of users of the company or organizational management that involved ease of use of services.

**Communication (Top Management and Key Users)**
Two-way communication between top-level management and key users. Communication includes potential use of information systems on the impact of information technology, the very perceived needs of the use of information systems and priorities on the information systems functions.
**Human Resources**

Human resources are an important factor in developing and maintaining information systems. The quality of employees is a key element in success or failure. There is an increase for skillful and technically competent human resources.

**Repositioning of Information System.**

Realignment of information systems through by providing a new set of tools, techniques and processes in managing information as a decision support that uses computerization for its users so that data processing activities became more central in the information system functioning.

**RESEARCH METHODS**

The method used in this study is a qualitative research method with descriptive analysis. With this method, the writer can describe in-depth the various situations and conditions that exist systematically and factually and can link the variables that will be generated from the object of research.

Data source in this study consists of primary data and data collection techniques was done through observation which were supported with in-depth interviews.

In determining the informants, the writer uses a purposive technique, with certain considerations when electing the informants. This technique was chosen because the writer wants to get information or data from people who really understand the research problem being studied. Informants in this study includes: Head of the Public Affairs Bureau at the Regional Secretariat of West Java Province, the Head of Household Administration and Staffing, the civil servant that also acts as administrator staff that was authorized to manage the SIApp West Java application and civil servants within the Public Affairs Bureau at the Regional Secretariat of West Java Province.

**RESULTS AND DISCUSSIONS**

**Critical Success Factors** in the Implementation of Employee System Information based on E-Government in the Public Affairs Bureau at the Regional Secretariat of West Java Province.

A management information system is not just a technological development, but also related to the organization and people processing it. Management information system based on e-government in the Public Affairs Bureau at the Regional Secretariat of West Java Province uses West Java’s Government’s Civil Servant Information System or abbreviated as SIApp West Java, which is a total integration of processing devices including collectors, procedures, processors and software; storage devices include data centres and data banks as well as interrelated, interdependent and interdependent communication devices in the framework of providing information in the employment field.

Law No. 5 of 2014, concerning Public Civil Servant, mandates to ensure the efficiency, integration and accuracy of data in the Management of Public Civil Servants, a National Civil Servant Information System is needed, held nationally, integrated among Government Agencies and based on Information technology. SIApp
is a forum for personnel in the Regional Secretariat of West Java Province to improve personnel management services that are accurate, integrated, real time and has quality towards the government’s civil servants’ information. The procedure in using the West Java SIAp application is that every civil servant will have a personal West Java SIAp account that can be accessed from a cellphone or Personal Computer with the support of the internet network. Then, by having access to this, the staff can input and update data that is required and this is available in the menus provided within the application. Data of each employee must include photos or digital documents, for example in the educational level, the staff must attach their latest academic certificate. This applies to all staffs. If the data is completed and has been updated periodically, this will be needed by the staffing management. Thus the government of West Java Province then will have no difficulty in searching for staff information as it is accessible anytime.

There are still obstacles in organizing staff data and the inaccuracy of it became a setback in implementing management system information based on e-government in the Public Affairs Bureau at the Regional Secretariat of West Java Province. The outdated information provided in the system is due to the slow work of the employees. This has also resulted in a delay for the operator to manage the updated data. Based on the description above, there are indications of problems related to the non-satisfactory in implementing management information system based on e-gov at the Regional Secretariat of West Java Province.

In analyzing this phenomenon regarding the ineffectiveness of e-government implementation with management system information in the Public Affairs Bureau at the Regional Secretariat of West Java Province, therefore critical success factors (CSF) are reviewed to define what factors are needed that influence the success of organizations and success in accomplishing goals. This way, we will be able to identify each key factor / determinant of success. The theoretical foundation used to analyze this research is the critical success factor theory from Rockhart (1982) which consists of four factors namely Service, Communication (manager to main users), Human Resources and Provision of Information Systems.

Service

The first critical success factor is Service. Service has two aspects namely actual and perception. Actual includes the required operational performance that is effective and efficient (system / terminal response time, development of timely information systems, and within budget) while the perception is user’s understanding of the ease of service used and can also help complete work through the development of system tools to measure and understand the status of services provided (Rockart, 1982).

In the service aspect through the West Java SIAp application program, which includes information systems performance, that is effective and efficient (responding time of information systems), when accessed by each civil servant, storage space is still limited in managing digital data with a maximum size due to limited server storage that affects the accuracy of the data displayed. If the employee uploaded data that does not comply with the terms regarding large / small size (in the calculation of kilobytes) then it is certain that employee data is rejected and becomes an error. This has resulted many employees stop / skip the process of uploading digital data, resulting in incomplete or inaccurate staffing data in accordance with required requirements.
Table 1. Personal Document Digital Archive Example

<table>
<thead>
<tr>
<th>No</th>
<th>File</th>
<th>Information</th>
<th>Date Uploaded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Marriage certificate</td>
<td>Marriage certificate</td>
<td>Not uploaded yet</td>
</tr>
<tr>
<td>2</td>
<td>Tax File Number (NPWP)</td>
<td>NPWP</td>
<td>2019/06/20 08:24:52</td>
</tr>
<tr>
<td>3</td>
<td>Healthcare ID Card</td>
<td>ASKES/BPJS</td>
<td>Not uploaded yet</td>
</tr>
<tr>
<td>4</td>
<td>Identification Card</td>
<td>ID Card</td>
<td>2019-06-20 08:18:44</td>
</tr>
<tr>
<td>5</td>
<td>Birth Certificate</td>
<td>Birth Certificate</td>
<td>Not uploaded yet</td>
</tr>
<tr>
<td>6</td>
<td>Family Card (KK)</td>
<td>Family Card (KK)</td>
<td>Not uploaded yet</td>
</tr>
<tr>
<td>7</td>
<td>KARPEG</td>
<td>KARPEG</td>
<td>2019-06-20 08:21:47</td>
</tr>
<tr>
<td>8</td>
<td>KPE</td>
<td>KPE</td>
<td>2019-06-20 08:23:18</td>
</tr>
</tbody>
</table>

Source: PNS Civil Service Data accessed at siap.jabarprov.go.id (2020)

Based on the table above, employees data that is already available or not, can be seen clearly with the use of West Java SIAp, therefore this can ensure the smooth process of staff administration.

In providing e-government services through the Information and Communication Technology component, it is able to support the implementation of services based on e-government consisting of infrastructure applications for server environments and security, data and content management tools, application development tools, operating systems and hardware. This information technology infrastructure is the most important thing in the implementation of services based on e-government and is a key success factor of a management information system based on e-government (Al-Naimat et al., 2013). Providing adequate and equipped facilities in every e-government implementation will result in successful implementation (Hussein et al., 2007).

Critical Success factors which include aspects of service also involve perceptions, namely users’ understanding of the ease of service used.

Figure 1. SIAp Jabar Preview

Source: siap.jabarprov.go.id (2020)
From Figure 1, it is clear that the West Java SIAP display is very easy to access from the available menus. Unfortunately, the use of integrated information technology through the use of the internet is still difficult for several civil servants in the Public Affair Bureau of the Regional Secretariat of West Java Province. This impacts the management periodically, and because of the limited updated data, data displayed may not be that accurate as needed.

This can be seen clearly from the following table:

<table>
<thead>
<tr>
<th>No</th>
<th>Status</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Draft</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>Proposed Change</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>Revision</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>BKD Verification Already</td>
<td>116</td>
</tr>
<tr>
<td>5</td>
<td>Proposed Changes (Work Units)</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>Revised Amendments (Work Unit Employees)</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: PNS Civil Service Data accessed at siap.jabarprov.go.id (2020)

The overall data of civil servants in the Public Affairs Bureau amounted to 253 people, while the data of employees who have been processed are 119 people. This means that as many as 134 personnel’s data have not been updated. If calculated as a percentage, the implementation rate is only 47%. Referring to this data, it can be seen that for data accuracy in the West Java SIAP Application program services, it is not yet optimal.

**Critical Success factors** from service aspects include actual services which means the required operating performance that is effective and efficient (system / terminal response time, timely development of information systems, and within budget) and perceptions regarding users’ understanding of the ease of service used by technology with the utilization of West Java SIAP application, has not yet reached maximum result.

**Communication**

The second critical success factor is communication that includes the potential, needs and priorities in the function of information systems (Rockart, 1982). Organizations must be oriented towards active communication leadership in the use of information technology to meet organizational needs and achieve organizational goals.

In a two-way communication between managers and main users, namely between superiors and subordinates in the Public Affairs Bureau at Regional Secretariat of West Java Province, harmonious communication must be established so potential, needs and priorities of SIAP West Java implementation can
run optimally. Therefore, this can also affect good performance in achieving the objectives of using the West Java SIApp application in accordance with Law No. 5 of 2014, concerning Public Civil Servants, which mandates to ensure the efficiency, integration, and accuracy of data in the Management of Civil Servant App.

Two-way communication from top management to main users is needed to find out the potential and impact on the use of information system technology in meeting the needs of an organization (Rockart, 1982).

Communication that has been established between superiors and subordinates in the General Bureau of the Regional Secretariat of West Java Province, there are still obstacles and are considered to be substandard. In the work process, subordinates feel less attention to their needs. In an organization, communication has a very important role, if communication runs well it will have a harmonious understanding of a work program that is being carried out, also has an impact on good working relationships so as to create maximum work effectiveness.

**Human Resources**

The third critical success factor is human resources. The main key to success for an organization lies in the quality of the human resources that control and run it. The quality of human resources includes a person's knowledge, skills and abilities that can be used to produce professional performance. (Rockart, 1982). In the implementation of West Java SIApp in the Public Affairs Bureau at the Regional Secretariat of West Java Province, the quality of competent employees is still limited. Therefore, the application is not yet supported by the availability of adequate human resources in the application management information systems based on e-government through the use of technology.

The number of competent human resources in the General Bureau of the Regional Secretariat of West Java Province can be illustrated from the level / level of education in the following graph:

**Graph 1. The Number of Human Resources in the Public Affairs Bureau based on Educational Level**

![Graph 1](siap.jabarprov.go.id) (2020)

Human resources are seen as a critical success factor because human resources can develop and maintain information systems. The quality of employees is a key element in an organization's success or failure in
achieving its goals (Rockart, 1982). With the use of information systems based on e-government, there is also an increase in the need for human resources who are capable and are competent in regards to the use of technology. The availability of human resources who have the competence and expertise needed to implement e-government can be in accordance with the objectives set up by the organization.

**Information System Repositioning**

The fourth critical success factor is the repositioning of the information system. The intended reposition is the placement of information system functions into a different or new position. One of the main steps in repositioning is the provision of a new set of tools, techniques and processes (Rockart, 1982). In addition, repositioning also requires an increase in the involvement of information systems in the organization line to provide improvement in the needed service.

In this aspect, in the application of employee information systems based on e-government through the West Java SIAP, the repositioning of the information system by equipping office equipment in support of the implementation of information systems in the Public Affairs Bureau at the Regional Secretariat of West Java Province is complete and well available, however it has not be fully used to the maximum. Furthermore, repositioning of information systems relating to new techniques and processes is also needed through the availability of Standard Operating Procedure (SOP) mechanisms in the process of implementing an employee management information system that is considered as something new. The purpose of SOP availability is to explain the exact details or standards regarding routine or repetitive work activities carried out in an organization.

**Figure 2. SIAP Jabar Implementation Process Flowchart**

Source: bkd.jabarprov.go.id (2020)
The provision of adequate information system facilities and system accessibility, as well as the integration of well-developed systems are urgently needed to facilitate the success of the information (Al-Naimat et al., 2013).

The implementation of Personnel Management Information System based on e-government in the Public Affairs Bureau, has not yet been equipped with standard operating procedures (SOPs) that arrange in details the application of of the West Java Civil Servant information System (SIAp), there is only an implementation flowchart. In the introduction phase of the West Java SIAp program in the Regional Operations (OPD), only a letter was circulated. Then for the socialization stage, up to the guidance for its use, it was informed only through the staff of the administrator chosen to manage the West Java SIAp as a representative of the WTO who has the opportunity to attend technical guidance training. There is a manual that contains the use of West Java SIAp starting from initial access, input data, to approving staffing data (data verification) but this is only provided to guide the administrators staff in implementing West Java SIAp. This is not provided for each civil servant in the Public Affairs Bureau. So that the provision of repositioning of information systems to support the implementation of staffing management information systems is not fully optimal.

If the rearrangement / repositioning of information systems through the provision of a set of tools, techniques, and new processes for managing information is available for all, it can support information system users to get the same access when conducting data processing activities using computerized technology so that the utilization of management information systems based on e-government will reached its highest potential.

CONCLUSIONS

Based on the discussion of Critical Success Factors in the Implementation of E-Government Staffing Management Information Systems in the Public Affairs Bureau at the Regional Secretariat of West Java Province, here the writer draws a conclusion that the application of management information systems based on e-government through the West Java SIAp application has not yet run optimal. In the service factor, it has not produced accurate information. This is because the management staffs data in West Java SIAp must be updated periodically and equipped with digital archives (staffing data) which have not been implemented properly. Secondly, the communication factor between superiors and subordinates has not proceeded harmoniously which also has an impact on the creation of work effectiveness that has not been maximized. In regards to human resource factors, human resources in the Public Affairs Bureau can not fully support the process of implementing West Java SIAp. This is due to the fact that most of the staffs educational background showed lack of capability in operating computer and mastering information technology. Finally, the factor on providing information systems has not yet been supported by standard operating procedures (SOP) in the implementation of the West Java SIAp. This is also caused by the lack of socialization and training for civil servants in the Public Affairs Bureau which then causes a gap in understanding the management information system based on e-government applied through the West Java SIAp program.
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