Effects of Personal Engineering Capabilities, Effectiveness of System Information Accounting, Physical Comfort and Work Environment on Employee Performance

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ABSTRACT: The purpose of this study was to analyze the effect of the influence of personal engineering abilities, effectiveness of accounting information systems, physical comfort and work environment on employee performance. This research was conducted at LPD in Denpasar City. The sample in this study amounted to 105 respondents. The data analysis technique used is multiple linear regression analysis. The results of his research are the ability of personal techniques to have a positive effect on employee performance, the effectiveness of SIA has a positive effect on employee performance, physical comfort has a positive effect on employee performance and the work environment has a positive effect on employee performance.

Keywords: Personal Technical Ability; SIA effectiveness; Physical Comfort; Employee Performance, Work Environment

I. INTRODUCTION

Information systems are the basis for the current business. According to Laudon & Laudon (2008: 15), information systems can be defined technically as a set of interconnected components to collect, process, store, and distribute information that is useful as a decision-making and monitoring tool in an organization. In the information system there are three activities, namely input, process and output. The information generated is a new output of information systems. The survival of a company is largely determined by the company's ability to compete with other companies. Competitiveness requires strategies that can take advantage of all the strengths and opportunities that exist, as well as close weaknesses and neutralize the strategic obstacles faced in business (Kelton et al., 2010).

Information Systems (SI) have a very important role in the field of accounting because basically the main purpose of accounting is to provide information for decision makers in the company. In general, all companies or organizations will always need information to make a decision. The information needed must be accurate, available on time whenever needed, and have appropriate and relevant value (Larasdiputra & Suryanawa, 2014). Quality accounting information plays an important role for the management of every organization because data and information form the basis of individual business activities (Nwokeji, 2012)

A good employee performance if he has high skills, is willing to work if he gets a reward (salary) or is given in accordance with the agreement, and has a good future and hope. Efforts to improve employee performance in the use of accounting information systems can be influenced by personal technical ability, the effectiveness of accounting information systems, physical comfort and work environment. These factors greatly affect the performance of employees in implementing data processing systems.

The ability of personal techniques in the use of information in a company, can be seen from the ease of users in identifying data, accessing data and interpreting the data. The ability of good personal accounting techniques will encourage users to use accounting information systems so that information system performance will be higher. The ability of personal engineering is something that can not be separated from the application of technology, besides that human existence is very important in the application of technology (Septriani, 2010)

Accounting Information Systems (AIS) can be defined as systems that process financial information and support decision making in the context of coordinating and controlling organizational activities using computer-based methods. Accounting information systems are interrelated components integrated to collect, store and disseminate data for the purpose of planning, controlling, coordinating, analyzing, and making decisions (Soudani, 2012). The importance of using SIA in producing quality information and supporting decision making processes can improve organizational efficiency (Nabizadeh & Omrani, 2014). Accounting information systems play an important role in effective decision making processes to control and coordinate organizational activities so as to achieve greater performance (Samuel, 2013). The effectiveness of accounting
information systems can provide convenience to its users and satisfaction in completing tasks. According to Aditya & Suardhika (2013), the effectiveness of accounting information systems has a positive effect on employee performance. The effectiveness of accounting information systems depends on the success between the system and the user (user).

Aditya & Suardhika (2013) states, high physical comfort will affect the perception of a user (user) to complete the tasks that become his obligations. Aditya & Suardhika (2013) also said that factors affecting one's perception one of them is a situation factor. The situation factor referred to in this study is the state of the computer system used by the user, the availability of a good computer system around the computer user (user) can improve employee performance.

Work environment factors also determine whether employee performance can work well or not, because if the work environment at the place where the employee works is very bad such as the relationship between employees and superiors is not good and an unsupportive work atmosphere can result in employee performance in using accounting information systems This is not going well so that the tasks that are done will be disrupted or hampered by the factors above because it determines the level of success of employee performance in carrying out their functions and duties. Research Rahmawati et al. (2014) states, the work environment is a situation and psychological condition in the organization. Therefore the organization must provide an adequate work environment such as physical work environment (comfortable office layout, clean environment, good air exchange, color, adequate lighting, and melodious music). And non-physical environment (work atmosphere, employee welfare, the relationship between employees and leaders, and places of worship). A good work environment also affects employee performance in carrying out their duties optimally.

In addition, to produce optimal performance in an organization can be measured from the results of work done by employees. Through the achievement of each individual's performance, the company can produce complete performance and achieve success in accordance with what is expected by the company. According to Moheriono (2010) competence has a very important role, because in general competence involves the ability in someone to do a job. One of the must-have competencies of employees is integrity, because employees with integrity will create a culture of integrity within the company and subsequently create a very valuable corporate environment, so that the company can focus more on the long-term situation of both employees, customers and investors which results in excellence in company performance.

Financial institutions have begun to utilize computer-based accounting information systems, one of which is the Village Credit Institution. The Village Credit Institution (LPD) is a financial business entity owned by Pakraman Village, where it operates in the village environment to serve the local village community. According to Main (2014), assessing the performance of an LPD requires good and complete financial reports, therefore we also need an accounting information system that is supported by computerized information technology.

The Village Credit Institutions in Denpasar have mostly implemented a computer-based system in eliciting data, but there are still a number of LPDs that have not implemented a computer-based accounting information system. Therefore the LPD development strategy was discussed in facing challenges in the global era into a special discussion in the meeting with moderators of Professor Unhi Prof. Ketut Sudha, who presented a number of speakers from the LPD, Bendesa, BKS LPD, LPLPD, MMDP Denpasar. In an interview held by the Bali Post Media Group (KMB) at The Vasini hotel, Denpasar, Monday (18/2/19). (http://www.balipost.com)

This research was conducted in all LPDs in Denpasar City. The reason for selecting all LPDs in Denpasar as a research object is because to face tighter competition in the era of the industrial revolution 4.0, the LPD must strengthen HR and must master information and technology (IT) so that the performance of LPD employees is able to compete in the industrial era 4.0. LPD must survive the fierce competition of banks that have a wide range of programs and services. LPD does not only compete with banks, of course there is fintech which is very popular at the moment. This research is only carried out in a certain point of time (cross section), while the environment is changing (dynamic), times will continue to develop, and technology will continue to be more sophisticated, so this research is important to do again in the future.

The higher the personal engineering ability of the Accounting Information System due to the positive relationship between the personal engineering abilities of the accounting information system and employee performance (Almilia & Briliantien, 2007). The relationship between TAM theory, namely the user or user is something that can not be separated from the application of technology, besides that human existence is very important in the application of technology. (Choe, 1996) It also adds that the personal information system technical capabilities are the main influence of employee recruitment and the design of accounting information systems

Previous Researcher Adventri (2008), Astuti (2013) concluded that the ability of personal accounting techniques has a significant positive effect on employee performance.

H1: Personal technical ability has a positive effect on employee performance
Effectiveness is how well the work produces outputs as expected (Christian, 2012). In general, the effectiveness of the use or implementation can be evaluated from the convenience obtained by the user in managing data. TAM explains if the system provides benefits, the system is said to be effective for its users. According to Sajady et al. (2008) the effectiveness of a system seen from the contribution of the system in producing quality information, for evaluation and decision making as well as a means of internal control. Research results by Awesejo et al. (2013), Suratini (2015) found a positive effect on the effectiveness of the use of accounting information systems on performance. The first hypothesis is proposed.

H2: The effectiveness of accounting information systems has a positive effect on employee performance.

According to Aditya & Suardhika (2013) the environment around the user or physical comfort can also support the effectiveness of the company's information system whereas according to Maryati (2014: 139) a healthy and good work environment will affect the work comfort of employees. The availability of facilities in the field of information technology systems helps employees in completing tasks on time without any obstacles. This relates to the theory of Technology-to-Performance Chain (TPC), which is that if technology provides an ease in carrying out tasks, then the convenience of the technology will increase is related to employee performance results.


H3: Physical comfort has a positive effect on employee performance.

The work environment is one of the factors that support the creation of job satisfaction for employees including place conditions, cooperative relations between employees and community service programs. The relationship of a good work environment, work atmosphere that allows and the availability of adequate facilities and with the high level of work productivity of employees in the company can not be doubted (Anoraga & Widiyanti, 1993: 130) The TRA theory says that the attitude towards fellow employees is able to provide good performance. The results of the study were conducted Hermawan (2003) states the work environment affects the effectiveness of employee performance in carrying out their duties. Rahmawati et al. (2014), Untari & Wahyuati (2014) stated the results of his research that the work environment significantly affected employee performance. Research Kartini & Budianto (2015) states that the work environment influences employee performance. Utami (2017) that the work environment influences employee performance. Based on previous research it can be concluded the following hypothesis.

H4: The work environment has a positive effect on employee performance.

II. RESEARCH METHODS

This research was conducted at the Village Credit Institute (LPD) in Denpasar City. The rapid development of financial institutions triggers fierce competition between LPDs and other financial institutions, so an accounting information system is needed to improve the performance of LPDs so that they can compete with other financial institutions.

The population in this study were all LPD employees in the city of Denpasar. Based on data obtained from the Village Credit Empowerment Institution (LP-LPD) the number of LPDs in the City of Denpasar is 35 LPD with 544 employees. Samples taken using a purposive sampling technique that is the method of determining the sample with certain considerations where the sample members will be chosen in such a way that can represent the characteristics of the population. The criteria in selecting the sample in this study are employees who directly use the accounting information system in the LPD in Denpasar City. So the number of samples in this study were 105 employees with the following details:

<table>
<thead>
<tr>
<th>No.</th>
<th>Information</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of employees at Regional Credit Institutions in Denpasar City</td>
<td>544</td>
</tr>
<tr>
<td>2</td>
<td>Do not use computer-based SIA directly</td>
<td>(254)</td>
</tr>
<tr>
<td>3</td>
<td>Not occupying the position of head, treasurer and head of credit</td>
<td>(185)</td>
</tr>
<tr>
<td></td>
<td>Number of Samples</td>
<td>105</td>
</tr>
</tbody>
</table>

Source: Research Data, 2020

The criteria in selecting sample in this study are employees who directly use the accounting information system in the LPD in the city of Denpasar and hold positions as head, treasurer, and credit department. So the number of samples in this study were 105 employees.

Data analysis technique used for problem solving in this study is multiple linear regression analysis techniques. Multiple linear regression models are shown by the following equation:
\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon \quad (1) \]

Information:
- \( Y \): Employee Performance
- \( \alpha \): Constants
- \( \beta_1, \beta_2, \beta_3 \): Coefficient of regression for independent variables
- \( X_1 \): Personal Technique
- \( X_2 \): Effectiveness of Accounting Information Systems
- \( X_3 \): Physical Comfort
- \( X_4 \): Work Environment
- \( \epsilon \): Residual value

### III. RESULTS AND DISCUSSION

Descriptive statistics presented in this study are to provide information regarding the characteristics of the research variables. The characteristics in this study consist of the number of observations, minimum values, maximum values, mean values, and standard deviations. The results of descriptive statistics in this study can be seen in Table 2.

#### Table 2. Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>The mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Technical Ability</td>
<td>96</td>
<td>7:00</td>
<td>3:00 p.m.</td>
<td>12,1354</td>
<td>1,92283</td>
</tr>
<tr>
<td>SIA effectiveness</td>
<td>96</td>
<td>10:00 PM</td>
<td>40.00</td>
<td>32,6771</td>
<td>4,30780</td>
</tr>
<tr>
<td>Physical Comfort</td>
<td>96</td>
<td>11:00</td>
<td>8:00 p.m.</td>
<td>17.1458</td>
<td>2.03123</td>
</tr>
<tr>
<td>Work environment</td>
<td>96</td>
<td>8.00</td>
<td>3:00 p.m.</td>
<td>12.1354</td>
<td>1.73278</td>
</tr>
</tbody>
</table>

*Source: Research Data, 2020*

Based on Table 2 it can be concluded that the number of research observations numbered 96. The variable ability of personal technique has a minimum value of 7 and a maximum of 15 with an average value of 12.1354. The standard deviation of the personal technical ability variable of 1.92283 shows that the standard deviation of the data at an average value is 1.92283.

The variable effectiveness of the accounting information system has a minimum value of 22 and a maximum value of 40 with an average value of 32.6771. The standard deviation of the SIA effectiveness variable is 4.30780 this shows that the standard deviation of the data at an average value is 4.30780.

Variable physical comfort has a minimum value of 11 and a maximum value of 20 with an average value of 17.1458. The standard deviation of the physical comfort variable is 2.03123, this shows that the standard deviation of the data at an average value is 2.03123.

The work environment variable has a minimum value of 8 and a maximum value of 15 with an average value of 12.1354. The standard deviation of the work environment variable is 1.7328, this shows that the standard deviation of the data at an average value is 1.7328.

Calculation of multiple linear regression coefficients is done by regression analysis through SPSS 18.0 for Windows software, the results shown in Table 3 are obtained.

#### Table 3. Results of Multiple Linear Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>2.802</td>
<td>1.179</td>
</tr>
<tr>
<td>Personal Technical Ability</td>
<td>0.216</td>
<td>0.099</td>
</tr>
<tr>
<td>SIA effectiveness</td>
<td>.209</td>
<td>0.053</td>
</tr>
<tr>
<td>Physical Comfort</td>
<td>0.224</td>
<td>0.053</td>
</tr>
<tr>
<td>Work environment</td>
<td>0.429</td>
<td>.141</td>
</tr>
<tr>
<td>R. Square</td>
<td>0.759</td>
<td></td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.749</td>
<td></td>
</tr>
<tr>
<td>F Statistics</td>
<td>71.684</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Research Data, 2020*

Based on the results of multiple linear regression analysis as presented in Table 3, the regression equation can be made as follows:
Score the significance of each independent variable is less than 0.05. This shows that all independent variables have a significant effect on the dependent variable. The magnitude of the influence of the independent variable on the dependent variable shown by the total determination value (R Square) of 0.759 means that 75.9% of the variation in employee performance is influenced by variations in the ability of personal techniques, effectiveness of the AIS, physical comfort, and the work environment, while the rest of 24.1% is explained by other factors not included in the model.

The accuracy test of the regression model aims to find out whether all the independent variables identified (personal technical ability, SIA effectiveness, physical comfort, and work environment) are appropriately used to predict employee performance. This test is often also called the F test. The results of data processing in Appendix 9 using the SPSS program obtained a F count value of 71.684, with a sig value of 0.000 <0.05, then H0 is rejected and H1 is accepted. In conclusion, the group tested had a significant (significant) difference. This result means that there is a significant influence between the factors of personal technical ability, effectiveness of the AIS, physical comfort, and work environment simultaneously on employee performance.

The influence of personal technical ability, effectiveness of AIS, physical comfort, and work environment variables on the performance of employees is tested using the t test. Test criteria to explain the interpretation of the influence between each variable; if the significance value <0.05 then H0 is rejected and H1 is accepted. Conversely, if the significance value> 0.05 then H0 is accepted and H1 is rejected.

Based on the results of the analysis of the influence of the ability of personal techniques on employee performance obtained a significance value of 0.032 with a positive regression coefficient of 0.216. Significance value of 0.032 <0.050 indicates that H1 was accepted. This result means that personal technical ability has a positive and significant effect on employee performance.

Based on the results of the analysis of the effect of the effectiveness of SIA on employee performance obtained a significance value of 0.000 with a positive regression coefficient of 0.209. Significance value of 0.000 <0.05 indicates that H2 was received. This result means that the effectiveness of SIA has a positive and significant effect on employee performance.

Based on the analysis of the effect of physical comfort on employee performance obtained a significance value of 0.008 with a positive regression coefficient of 0.224. Significance value of 0.008 <0.050 indicates that H3 is accepted. This result means that physical comfort has a positive and significant effect on employee performance.

Based on the results of the analysis of the influence of the work environment on employee performance obtained a significance value of 0.003 with a positive regression coefficient of 0.429. Significance value of 0.003 <0.05 indicates that H4 is accepted. These results mean that the work environment has a positive and significant effect on employee performance.

Results The analysis in this study shows that the ability of personal techniques has a positive and significant effect on the performance of employees. This means that the lower the level of personal technical ability, the employee performance level will be lower, and vice versa if the employee has a high personal technical ability, the employee's performance will be better. Then in accordance with previous research Adventri (2008), Astuti (2013) concluded that the ability of personal accounting techniques has a significant positive effect on employee performance.

This result means that the effectiveness of SIA has a positive and significant effect on employee performance. In accordance with the results of research by Awesejo et al. (2013), Suratini (2015) found a positive effect on the effectiveness of the use of accounting information systems on employee performance.

According to Aditya & Suardhika (2013) the environment around the user or physical comfort can also support the effectiveness of the company's information system whereas according to Maryati (2014: 139) a healthy and good work environment will affect the comfort of employees. research Romandhon (2016) also states that the results of physical comfort research affect employee performance. In accordance with the results which state that physical comfort has a positive and significant effect on employee performance.

Kartini & Budianto (2015) states that the work environment influences employee performance. Utami (2017) that the work environment influences employee performance. Then in accordance with the results obtained stating that the work environment has a positive and significant effect on employee performance.

The work environment is one of the factors that support the creation of job satisfaction for employees including place conditions, cooperative relations between employees and community service programs. The relationship of a good work environment, work atmosphere that allows and the availability of adequate facilities and with the high level of work productivity of employees in the company can not be doubted (Anoraga & Widiyanti, 1993: 130) The TRA theory says that the attitude towards fellow employees is able to provide good performance. The results of the study were conducted Hermawan (2003) state the work environment affects the effectiveness of employee performance in carrying out their duties. Rahmawati et al. (2014), Untari & Wahyuati

IV. CONCLUSION

Personal technical ability has a positive and significant effect on employee performance in the LPD in Denpasar. This means that if the employee has high personal technical abilities, the employee's performance will be better.

The effectiveness of the accounting information system has a positive and significant effect on employee performance in the LPD in Denpasar. This means that the more effective the accounting information system, the better the employee's performance level will be.

Physical comfort has a positive and significant effect on employee performance in the LPD in Denpasar. This means that the surrounding physical environment consisting of equipment, machinery, and spatial planning with pleasant working conditions, the better the resulting employee performance levels will be better.

The work environment has a positive and significant effect on employee performance in the Denpasar City LPD. As the relationship between employees is good, the employee's performance will get better.

LPD institutions are expected to adapt to new things, especially regarding accounting information systems so as to improve the performance of these employees. In addition, the factors driving the occurrence of employee performance are the ability of personal techniques, the effectiveness of accounting information systems, physical comfort and work environment. Therefore, LPD in Denpasar should pay more attention to these factors in an effort to improve employee performance.

The results of this study are expected to be able to encourage further researchers to observe other factors that can affect employee performance in addition to the ability of personal techniques, the effectiveness of accounting information systems, physical comfort and work environment. Future studies are also expected to increase the number of research samples and expand the sample area of researchers, and can conduct research at several government agencies in the Province of Bali so that later the results can be generalized to a wider scope.

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