The Impact of Management Information System on Employee Performance

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Abstract

The major aim of the research paper is to measure the impact of Management Information System (MIS) on service quality in commercial banks. Moreover, it tries to investigate whether there are differences in the employee performance between the state and private commercial banks. Primary data has been collected from the bank employees in Manmunai North and Kattankudy divisional secretariat areas in Batticaloa District. Stratified random sampling was used to obtain 225 responses from employees. The collected data were used to test the model using regression methodology and t-test analysis was employed to find out the traces of differences. The reliability result reveals that the essential elements of MIS are system quality, information quality, employee characteristics and technical support whereas the identified consequence is employee performance. The results suggest that all the MIS dimensions have strong positive relationship with employee performance while among them, employee characteristics has high impact on employee performance. Further results imply that there are differences in the employee performance between state and private commercial banks in Batticaloa district (Manmunai North and Kattankudy DS divisions). Private bank employees perform well their services than state bank employees.

Implications of this research for IS theory and practice are discussed.

Keywords: System quality, information quality, employee characteristics, technical support, employee performances, and Management Information System (MIS)

Introduction

With the rapid development of information technology (IT), the use of information systems (IS) to improve employee performance in organizations is evolving. Organizations are introducing computer technology and developing their own Management Information System (MIS) for more efficient management especially for effective decision making. The growing utilization of MIS may encourage employees to increasingly use MIS to help them perform tasks and manage work (Igbaria and Tan, 1997).

Banks are the most important institutions in the chain of financial system in a country, it plays vital roles in the financial sector, not only in terms of turnover, profit and employment, but also it has impact on all functional areas of the economy. Therefore, providing effective services by banks to the
nation are necessitated with the growing economy due to the rapidly advancing IS. Since the units in banking industry are dealing with the similar products, they should show their identity in the market. Hence, they are investing more on the development and implementation of the IS at their banks in order to increase their employee performance which enables them to provide effective service to customers. In this context, the banks in Sri Lanka are also not exceptional. Recent development in IS Technology is a driving force to change the performance level of banks.

Understanding the impact of MIS on the performance of users is very crucial for all organizations because it can improve performance either organizational or individual. However, the value of understanding the impact of MIS on user performance has not yet received adequate attention. Most previous researches have focused on identifying the determinants of computer acceptance, making it inadequate to determine the impact of different types of information systems user performance (Esteves and Coilado, 2000; Fiona and Nah, 2002; Hendricks, Singhal and Stratman, 2007; Hayes, Hunton and Reck, 2001). Then, with increasing competitive pressures, as managers are trying to achieve maximum productivity of people, processes and information systems, it has been a task for researchers in ISs to provide managers with advice on investment in specific aspects of MIS that lead to the highest performance possible users (Kositanurit, Osei-Bryson and Ngwenyama, 2011). In light of these facts and because organizations invest significant resources in the adoption of MIS, this research attempts to assess the impact of MIS on the employee performance perceived by the employees in commercial banks.

Research Problem

Banking sector is one of the most influential sectors for the economic development in country like Sri Lanka. People approach banks for several benefits such as getting loans, saving their funds, pawning activities, etc. Further, nowadays people prefer personalized service rather than formal service patterns. They have so much of queries to clear for which they want immediate solutions at the time they are having discussion with bank personnel. On the other hand, bank employees should be available with sufficient information to respond to the requests of the customers. Banks can differentiate themselves by providing superior service to customers as all the banks are having similar products. Prior research by Vannirajan and Manimaran (2009) indicates that employee performance is a must to render superior service to customers.

More banks have been established in Batticaloa district compared to previous years (Before 10 years, there were only 5 commercial banks operating in the district, but now there are 11 commercial banks operating in the same district). Customers of those previous 5 banks are now spread out to all the 11 banks which means they switch from one bank to other because they may have not received the desired service from those banks. In addition to that, there is a common view point among the public that private banks’ employee performance is in high and at expected level than that of state bank employees’. Therefore the performance level of the employees in each bank should be evaluated. Further, Pratyush and Berg (2003) suggested that MIS is one of the important motivators for achieving the high employee performance. As MIS has many independent variables it is essential to decide which variable impacts the employee performance most and which impact least. Thus these issues have been turned as the research problem of this study.
Research Objectives
The followings are the objectives of the study:

- To explore the level of each MIS dimension (system quality, information quality, employee characteristics, technical support) of commercial banks in Batticaloa district.

- To explore the level of employee performance in commercial banks in Batticaloa district.

- To discover whether there are any differences in the level of employee performance between state and private commercial banks in Batticaloa district.

Literature Review

Employee Performance
Many organizations believe that their employees hold a special place in the organization by playing essential roles in achieving organizational goals (Collis and Montgomery, 1995). It is believed that companies can create and sustain competitive advantage by establishing proper human resource in terms of employee performance. According to Collis and Montgomery (1995), good employee performance will positively impact on the organization’s performance. Even though the human resource of an organization is seen as cost in some companies as proposed by Larsen and Brewster (2003), it has received increasing appreciation as a source of competitive advantage. Therefore, proper personnel should be developed by organizing and managing the work of employees. Srinivas and Nowduri (2011) states that organizations nowadays invest and use MIS for the purpose of efficient functioning and improved decision making. Similarly, Ali, Siti and Ideris (2012) proposes that MIS moves the decision making process towards the right path and facilitates the process during dynamic environmental changes and management activities. Therefore, organizations can adopt MIS to organize and manage the work of employees to ensure improved employee performance.

Management Information System (MIS)
According to Srinivas and Nowduri (2011), there are three types of information systems: Transactional Processing Systems (TPS), Management Information Systems (MIS), and Expert Systems. MIS refer to an information system that collect, process, disseminate and retrieve the data with the help of integrated hardware and software components to facilitate the management decision making process. It also possesses several automated application to cultivate the capabilities of computers. MIS further has several subsets such as Decision Support Systems and Executive Information Systems. Therefore the terms MIS and IS are used interchangeably in this paper. Jahangir (2005) denotes that the organizations should make sure that proper MIS have been adopted by their management as it plays a significant role in the choice of decisions to be made. General observation regarding MIS is, that while good MIS facilitates decision making, bad MIS drives to worse decisions. Ustudy.in (2010) also supports the above observation and further suggested that efficient decisions are dependent on quality of information. Therefore, managers should ensure that they develop quality information by cultivating their environment.

System Quality
System quality refers to the quality of the software, hardware and data components of an information system and its functioning. A well established, designed and implemented system will lead to remarkable organizational benefits such as increased revenues, massive cost reductions, enhanced process efficiency and broader market share by outperforming the competitors (Bakos and Treacy, 1984). On the
contrary, if a system is not properly designed and implemented, it will create regular system failures and run outs which will slow down the business operations. This will end up in increased cost to the firm.

**Information Quality**

Information quality represents the quality of the outputs that come from systems which are commonly in the form of on screen display and printed reports (Delone and McLean, 1992). The quality of IS is essential as the process of decision making ultimately depend on quality information, and hence it has drawn much attention in IS literature. Good information quality depends on good data quality. Poor data quality will lead to poor information quality and poor information quality will cause negative effects on organizational performance (Redman, 1998).

**Employee Characteristics**

Employee Characteristics refers to a set of perceptions and behaviors of employees with regard to information system in organizations. Employee Characteristics include training in information system handling, experience in handling IS of organizations, attitudes and perception of employees about IS and the feeling of employees by using IS of organizations (Bailey and Pearson, 1983). Pratyush and Berg (2003) indicated that there is a positive relationship between employee characteristics and employee performance whereas Goodhue (1986) had already mentioned that employee characteristics are one of the essential variables that lead to better organizational performance.

**Technical Support**

Technical support refers to the assistance an employee receives from IT department when he/she faces issues with the information system he/she uses. The quality of technical support is an influential factor in employee performance in organizations where extensive use of IS takes place (Vannirajan and Manimaran, 2009). Therefore it is important not only to an employee but also for a customer because customers will be dissatisfied if the system of an organization is down and causes delays.

**Methods**

**Sampling Design**

The study was conducted among the employees of commercial banks in Mannunai North and Kattankudy Divisional Secretariat areas of Batticaloa district. A sample of 225 employees was chosen, who worked in 23 branches. The technique of stratified random sampling was used for the study. The study was based on the primary data collected by administering a questionnaire on the sample.

The questionnaire was developed for the study purpose by incorporating the technology-to-performance model (TPC) proposed by Goodhue and Thompson (1995). Further the models proposed by Luarn and Huang (2009) and Pratyush and Berg (2003) also were employed to develop the questionnaire. The opinions of the respondents with regard to each statement were evaluated on a five-point Likert scale ranging from 'strongly disagree' to 'strongly agree'.

**Methods of Data Analysis and Evaluation**

**Univariate Analysis**

Univariate analysis is appropriate for any single variable to explore individual qualities of its data. This analysis was used to identify the level of each single variable of this study. The following criteria were used to evaluate the results.

Table 1: Decision Criteria for Univariate Analysis
### Decision Criteria for Bivariate Analysis

<table>
<thead>
<tr>
<th>Decision Criteria</th>
<th>Decision Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.0 \leq X_i &lt; 2.5$</td>
<td>Low Level</td>
</tr>
<tr>
<td>$2.5 \leq X_i &lt; 3.5$</td>
<td>Moderate Level</td>
</tr>
<tr>
<td>$3.5 \leq X_i \leq 5.0$</td>
<td>High Level</td>
</tr>
</tbody>
</table>

*Source: Sajiththa and Ragel (2014)*

### Bivariate Analysis

Table 2: Decision Criteria for Bivariate Analysis

<table>
<thead>
<tr>
<th>Decision Criteria</th>
<th>Decision Attribute</th>
</tr>
</thead>
<tbody>
<tr>
<td>$r = 0.1$ to $0.29$ or $r = -0.1$ to $-0.29$</td>
<td>Low level of impact</td>
</tr>
<tr>
<td>$r = 0.3$ to $0.49$ or $r = -0.3$ to $-0.49$</td>
<td>Medium level of impact</td>
</tr>
<tr>
<td>$r = 0.5$ to $1.00$ or $r = -0.5$ to $-1.00$</td>
<td>High level of impact</td>
</tr>
</tbody>
</table>

*Source: Sekaran (2000)*

### Multiple Regression Analysis

In order to assess the relative importance of each MIS quality dimension on employees performance, the multiple regression model was used. The fitted regression model was:

$$EP_i = \beta_0 + \beta_1 SQ + \beta_2 IQ + \beta_3 EC + \beta_4 TS + u_i \quad i = 1 \text{ to } 225$$

Where:

- $EP_i$: Employee Performance
- $SQ$: System Quality
- $IQ$: Information Quality
- $EC$: Employee Characteristics
- $TS$: Technical Support
- $\beta_0$: Intercept (constant) Value
- $\beta$: Coefficient Estimate
- $u_i$: Error Term

T-test

This test is used to identify the significant difference between the two variables. In this research, the independent sample t-test was used. The Independents-samples t-test procedure compares means for two groups of cases. Hypothesis testing for independent samples t-test is carried out as follows:

- $H_0$: There are no significant differences between two group means ($p \geq 0.05$)
- $H_1$: There are significant differences between two group means ($p < 0.05$)

### Data Analysis

#### Levels of MIS and Employee Performance Dimensions

Management Information System is evaluated with the help of four dimensions: System Quality, Information Quality, Employee Characteristics and Technical Support as indicated by Vannirajan and Manimaran (2009). Similarly employee performance
is evaluated by six indicators as proposed by Pratyush and Berg (2003). Table 3 indicates the average values of the indicators for each variable of MIS dimensions and employee performance and table 4 indicates the summary details of the independent and dependent variables.

### Table 3: Levels of MIS and Employee Performance Dimensions

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Indicators</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>System Quality</strong></td>
<td>Ease of use</td>
<td>4.07</td>
<td>0.773</td>
</tr>
<tr>
<td></td>
<td>Convenience of access</td>
<td>3.90</td>
<td>0.826</td>
</tr>
<tr>
<td></td>
<td>System reliability</td>
<td>3.71</td>
<td>0.825</td>
</tr>
<tr>
<td></td>
<td>System accuracy</td>
<td>3.83</td>
<td>0.905</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td>Versatility</td>
<td>3.90</td>
<td>0.826</td>
</tr>
<tr>
<td></td>
<td>Adoptability</td>
<td>3.79</td>
<td>0.805</td>
</tr>
<tr>
<td></td>
<td>User requirements</td>
<td>3.76</td>
<td>0.789</td>
</tr>
<tr>
<td></td>
<td>Integration</td>
<td>4.07</td>
<td>0.732</td>
</tr>
<tr>
<td><strong>Information Quality</strong></td>
<td>Information accuracy</td>
<td>4.00</td>
<td>0.747</td>
</tr>
<tr>
<td></td>
<td>Information completeness</td>
<td>3.96</td>
<td>0.749</td>
</tr>
<tr>
<td></td>
<td>Information relevance</td>
<td>3.92</td>
<td>0.699</td>
</tr>
<tr>
<td></td>
<td>Timeliness of information</td>
<td>4.03</td>
<td>0.657</td>
</tr>
<tr>
<td></td>
<td>Conciseness of information</td>
<td>3.97</td>
<td>0.784</td>
</tr>
<tr>
<td></td>
<td>Content of information</td>
<td>3.83</td>
<td>0.789</td>
</tr>
<tr>
<td><strong>Employee Characteristics</strong></td>
<td>Relative advantage</td>
<td>4.17</td>
<td>0.743</td>
</tr>
<tr>
<td></td>
<td>Reading of use</td>
<td>4.16</td>
<td>0.791</td>
</tr>
<tr>
<td></td>
<td>Compatibility</td>
<td>4.00</td>
<td>0.933</td>
</tr>
<tr>
<td></td>
<td>Self-efficacy</td>
<td>4.12</td>
<td>0.814</td>
</tr>
<tr>
<td></td>
<td>Visibility</td>
<td>3.89</td>
<td>0.822</td>
</tr>
<tr>
<td></td>
<td>Image</td>
<td>4.00</td>
<td>0.771</td>
</tr>
<tr>
<td></td>
<td>Training</td>
<td>3.64</td>
<td>1.027</td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td>3.76</td>
<td>1.024</td>
</tr>
<tr>
<td><strong>Technical Support</strong></td>
<td>Responsiveness</td>
<td>3.80</td>
<td>0.824</td>
</tr>
<tr>
<td></td>
<td>Competency</td>
<td>3.96</td>
<td>0.724</td>
</tr>
<tr>
<td></td>
<td>Assurance</td>
<td>4.02</td>
<td>0.707</td>
</tr>
<tr>
<td></td>
<td>Reliability</td>
<td>4.02</td>
<td>0.719</td>
</tr>
<tr>
<td></td>
<td>Empathy and dependability</td>
<td>3.84</td>
<td>0.697</td>
</tr>
<tr>
<td><strong>Employee Performance</strong></td>
<td>Speed of completion</td>
<td>4.03</td>
<td>0.818</td>
</tr>
<tr>
<td></td>
<td>Decision confidence</td>
<td>3.85</td>
<td>0.813</td>
</tr>
<tr>
<td></td>
<td>Time-to-time decision</td>
<td>3.96</td>
<td>0.795</td>
</tr>
<tr>
<td></td>
<td>Quality of decision</td>
<td>3.89</td>
<td>0.783</td>
</tr>
<tr>
<td></td>
<td>Decision effectiveness</td>
<td>3.94</td>
<td>0.808</td>
</tr>
<tr>
<td></td>
<td>Viability of decision</td>
<td>3.88</td>
<td>0.767</td>
</tr>
</tbody>
</table>

*Source: Survey Data*

The summary of the four dimensions of MIS as well as the overall score of Employee Performance are depicted in Table 4.
Table 4: Summary Measures of MIS and Employee Performance

<table>
<thead>
<tr>
<th>Variables/Dimensions</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Quality</td>
<td>3.88</td>
<td>0.584</td>
</tr>
<tr>
<td>Information Quality</td>
<td>3.95</td>
<td>0.530</td>
</tr>
<tr>
<td>Employee Characteristics</td>
<td>3.97</td>
<td>0.539</td>
</tr>
<tr>
<td>Technical Support</td>
<td>3.93</td>
<td>0.559</td>
</tr>
<tr>
<td>Employee Performance</td>
<td>3.93</td>
<td>0.630</td>
</tr>
</tbody>
</table>

*Source: Survey Data*

**Correlation Analysis**

Pearson (r) correlation coefficient was computed to test the direction and strength of relationships that exist among the study variables. Table 5 below presents the results of correlation analysis. Further it has been revealed that all dimensions of MIS have strong positive relationship with employee performance.

Table 5: Correlation between MIS and Employee Performance

<table>
<thead>
<tr>
<th>Variables/Dimensions</th>
<th>Employee Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Quality</td>
<td>0.545**</td>
</tr>
<tr>
<td>Information Quality</td>
<td>0.579**</td>
</tr>
<tr>
<td>Employee Characteristics</td>
<td>0.571**</td>
</tr>
<tr>
<td>Technical Support</td>
<td>0.503**</td>
</tr>
</tbody>
</table>

**Correlation is significant at the 0.01 level (2-tailed)**

*Source: Survey Data*

**Multiple Regression Analysis**

The results from the multiple regression analysis are shown in the table below.

Table 6: Impact of MIS on Employee Performance

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Regression Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Quality</td>
<td>0.242**</td>
</tr>
<tr>
<td>Information Quality</td>
<td>0.226**</td>
</tr>
<tr>
<td>Employee Characteristics</td>
<td>0.260**</td>
</tr>
<tr>
<td>Technical Support</td>
<td>0.218**</td>
</tr>
<tr>
<td>Constant</td>
<td>0.203</td>
</tr>
<tr>
<td>R²</td>
<td>0.448</td>
</tr>
<tr>
<td>F-Statistics</td>
<td>46.414**</td>
</tr>
</tbody>
</table>

**Significant at 5 per cent level (p<0.05)**

*Source: Survey Data*

**Employee Performance Differences**

Independent sample t-test was carried out to find out whether there are any differences existing in the level of employee performance between state and private banks. The results of the analysis is shown below:
Table 7: Employee Performance (Group Statistics – Nature of Ownership)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Nature of Ownership</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>State Banks</td>
<td>72</td>
<td>3.4306</td>
<td>0.5072</td>
</tr>
<tr>
<td>Performance</td>
<td>Private Banks</td>
<td>153</td>
<td>4.1601</td>
<td>0.5410</td>
</tr>
</tbody>
</table>

Source: Survey Data

Table 8: Employee Performance (Independent Sample T-Test Analysis)

<table>
<thead>
<tr>
<th>Variance Assumption</th>
<th>Levene’s Test for Equality of Variance</th>
<th>T-Test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig</td>
</tr>
<tr>
<td>Equal variance assumed</td>
<td>0.407</td>
<td>0.524</td>
</tr>
<tr>
<td>Equal variance not assumed</td>
<td>-9.850</td>
<td>147.627</td>
</tr>
</tbody>
</table>

Source: Survey Data

Results and Discussion

Level of MIS and Employee Performance

MIS is evaluated under four dimensions: System Quality, Information Quality, Employee Characteristics, and Technical Support. All the dimensions of MIS have a higher level of attribute (mean values of system quality, information quality, employee characteristics and technical support are 3.88, 3.95, 3.97, and 3.93, respectively) (Table 4). Among these dimensions, ‘employee characteristics’ has a comparatively higher level of attribute, while system quality has a lower level of attribute. System quality is measured by eight indicators. System quality has a higher level of attribute (mean value = 3.88). Also, all indicators of system quality have higher level of attribute (mean values of ease of use, convenience of access, system reliability, system accuracy, versatility, adoptability, user requirements, and integration are 4.07, 3.90, 3.71, 3.83, 3.90, 3.79, 3.76, and 4.07, respectively) (Table 3). Among these indicators, ease of use and integration have comparatively higher level of attribute, and system reliability has lower level of attribute. Information quality is measured by six indicators. Information quality has a higher level of attribute (mean value = 3.95). Also, all indicators of information quality have higher level of attribute (mean values of information accuracy, information completeness, information relevance, timeliness of information, conciseness of information, and content of information are 4.00, 3.96, 3.92, 4.03, 3.97, and 3.83, respectively) (Table 3). Among these indicators, timeliness of information has comparatively higher level of attribute, and content of information has lower level of attribute.

‘Employee characteristics’ is measured by eight indicators. Employee characteristics has a higher level of attribute (mean value = 3.97). Also, all indicators of employee characteristics have higher level of attribute (mean values of relative advantage, reading of use, compatibility, self-efficacy, visibility, image, training, and experience are 4.17, 4.16, 4.00, 4.12, 3.89, 4.00, 3.64, and 3.76, respectively) (Table 3). Among these indicators, relative advantage has comparatively higher level of attribute, and training has lower level of attribute. Technical support is measured by five
indicators. Technical support has a higher level of attribute (mean value = 3.93). Also, all indicators of technical support have higher level of attribute (mean values of responsiveness, competency, assurance, reliability, and empathy and dependability are 3.80, 3.96, 4.02, 4.02, and 3.84, respectively) (Table 3). Among these indicators, assurance and reliability have comparatively higher level of attribute, and responsiveness has lower level of attribute.

Similarly, employee performance (dependent variable) is measured by six indicators. Employee performance has a higher level of attribute (mean value = 3.93). Also, all indicators of employee performance have higher level of attribute (mean values of speed of completion, decision confidence, time-to-time decision, quality of decision, decision effectiveness, and viability of decision are 4.03, 3.85, 3.96, 3.89, 3.94, and 3.88, respectively) (Table 3). Among these indicators, speed of completion has comparatively higher level of attribute, and decision confidence has lower level of attribute.

**Relationship between MIS and Employee Performance**

It is observed from Table 5 that correlation is significant at 0.01 level (2-tailed). The r-value between system quality and employee performance is 0.545; between information quality and employee performance is 0.579; between employee characteristics and employee performance is 0.571; and between technical support and employee performance is 0.503. These values fall in the range of r = 0.5 to 1.0 or r = −0.5 to −1.0, the decision criteria for correlation analysis (see Table 2), indicating that there is a strong positive correlation between MIS dimensions and employee performance.

**Impact of MIS on Employee Performance**

This analysis shows that system quality, information quality, employee characteristics, and technical support significantly contribute to employee performance. The contribution of employee characteristics towards employee performance is at high level compared to the other three dimensions. These predictions have been significant at p-value of 5% (p<0.05). Further, 44.8% variance in employee performance can be explained by four dimensions of MIS as represented by adjusted r² value. Hence, the equation for employee performance can be written as follows:

\[
\text{Employee Performance} = 0.203 + 0.242\text{SQ} + 0.226\text{IQ} + 0.260\text{EC} + 0.218\text{TS}
\]

Here, all the dimensions are significant with employee performance. The value of system quality is 0.242, which means that when there is one unit change in system quality, employee performance changes by 24.2%. The value of information quality (0.226) indicates that one unit change in information quality would result in 22.6% of change in employee performance. The value of employee characteristics (0.260) indicates that one unit change in employee characteristics would result in 26% of change in employee performance. In the same way, the value of technical support, which is 0.218, indicates that when technical support changes by one unit, employee performance would also change by 21.8% (Table 6).

**Employee Performance Differences**

Levene’s test for equality of variances indicates that variances for two types banks do not differ significantly (p-value, 0.00<0.05) from each other (see Table 8). Then ‘Equal-Variance Assumed’ assumption was taken and t-test for equality of means was carried out to compare average values between state and private banks. As the p-value from the t-test for equality of means (p=0.00), is less than the significance level 0.05, it was concluded that there is sufficient evidence to say, at the 5% level of significance, that “there are significant differences in...
the employee performance level between state and private commercial banks in Batticaloa district”.

To support this finding, group statistics table can be utilized (refer Table 7). According to that table, mean value of private bank employee performance is 4.1601, which is greater than the mean value of state bank employee performance, 3.4306. The analysis confirmed that private commercial bank employees perform their services in a high level compared to state commercial bank employees in Batticaloa district.

**Conclusion, Recommendation and Implications**

**Conclusion**

Banks are one of the leading financial intermediaries established and expanding themself in Batticaloa district after the war period and they have an extensive usage of MIS to provide excellent service to customers. Even they use MIS as competitive weapon to outperform the competitors. Therefore, it is essential to discover the impact of MIS on employee performance with respect to Manmunai North and Kattankudy divisional secretariat (DS) divisions where more banking transactions take place compared with other divisions.

The research problems of this study are how management information system has impacts on service quality and whether there are any differences in the employee performance between state and private commercial banks. These problems have been addressed through the findings. It was implied that MIS has positive impact on employee performance. Among the MIS dimensions, employee characteristics have high impact on employee performance compared to other three dimensions. Further, MIS dimension as a whole explain 44.8% variation in employee performance. Secondly, it was pointed out that there are differences in the employee performance between state and private commercial banks in Batticaloa district (Manmunai North and Kattankudy DS divisions). Private bank employees perform well their services than state bank employees. In addition to that, it was found that system quality, information quality, employee characteristics, technical support and employee performance are at high level in the commercial banks in Batticaloa District. All MIS dimensions (system quality, information quality, employee characteristics and technical support) have strong positive relationship with employee performance.

**Recommendation**

Good employee performance is generally regarded as a way to retain existing customers and acquire new ones, reduce costs, enhance corporate image, generate positive word-of-mouth recommendation, and improve profitability. In other words, banks that master its employees’ performance can gain a competitive edge in terms of higher revenue, customer loyalty and customer retention. Banks tend to use MIS to improve the performance of employees, increase efficiency and service quality. As per the findings of this research all MIS dimensions are highly positively correlated with employee performance. Therefore, the organizations should concentrate on the activities that may increase the level of MIS dimensions in order to increase the level of employee performance. Though the levels of all MIS dimensions are at high level, there mean values remain below 4.0 and hence measures have to be adopted by banks to raise the level close to 5.0. Here, some actions are suggested through this study.

Among the MIS dimensions, employee characteristics were found to be the most influential variable as it causes more variation in employee performance than other variables. Unless the employees are having a favourable attitude towards the IS at their bank, the enrichment of other three
variables will not produce a desirable impact. It should be easy for employees to trace a problem from the point of its origin by using the information system. Employees should perceive and feel that they know the process or actions behind each layer of the total organization. Then only they can have a positive attitude towards information system of the bank. Further, proper and sufficient training should be given to employees to handle the IS of the banks. Experienced personnel in information system are very much needed for the better performance of the bank. Therefore, banks should not allow an experienced staff to leave the organization at any cost. If an experienced employee left the bank, it will take a number of years to train and produce a same kind of employee in order to receive the same level of performance of the employee left.

The dimension for which more importance has to be given after employee characteristics is system quality. Senior management and IS division of the banks have to give attention to reliability, accuracy and adoptability of the system and the minimum user requirement to operate the information system of the bank. Information systems should be redesigned by the IS division to reduce the system failures. Further the information system should be designed in a manner that it should not cause any mistakes, thus it should be always accurate. In addition to that, system should be as simple as possible which will enable an employee with low level of IS education to operate the system without any difficulties. It will automatically enable an employee of any age to adopt the system without any hardships. If the system quality improves, the performance of the employees also will increase as a result.

The aspects such as information relevance and content of information have to be concentrated under information quality of the commercial banks. The information that comes from the system should be relevant for decision making. Unnecessary information output that may disrupt the performance of the employees should be removed out of the systems. When the employee needs some information to make a decision about a customer’s request, if the system does not have that required information, the employee will be frustrated. Therefore, the information systems should have sufficient content to enable the decision making without ambiguity. Technical support is an essential element in organizations where extensive use of information system is exhibited. Especially, for banks, it is an unavoidable need. On time service delivery is expected by customers of the banks. If the system breaks down or if an employee is unable to derive required information from the system, technical support should be available anytime to solve the issue at once. If not, the customer will go for another bank. Further, when an employee requires assistance from technical support staff, he should give individual attention on the employee’s needs. Then only the employee will be satisfied and will feel free to clarify if any further issues arise in the system.

The above mentioned recommendations for improving system quality, information quality, employee characteristics and technical support are for both state and private commercial banks in the Batticaloa district. However, the state banks should give more importance to the above mentioned improvements as the level of employee performance was perceived in a low level in state banks compared with private banks.

Implications
As per this study, there are differences in the performance of employees between state and private commercial banks in Batticaloa district. Similarly, the differences in MIS dimensions between state and private commercial banks and the differences in study variables across demographic characteristics of the
employees can be analysed in future studies to contribute to the existing IS literature. As per the IS literature, service quality is exhibited by the employee performance. As this study focuses MIS dimensions and employee performance, the model can be extended by including the service quality variable to get deep understanding about the relationships between and among variables. Even though the performance of employees is at high level in the banks, there is a general question whether the customers are satisfied by those performances of employees. Therefore, the customer satisfaction that is caused by the service quality can be analysed further. The present study analysed the impact of MIS on employee performance in banking industry. It may be extended to various other service industries which rely on MIS extensively.

References


