



Usage of Information Technology on Employee Commitment: Airport & Aviation Industry in Sri Lanka (AASL)

A. G. G. S. Abeyrathna¹, P. V. S Tissera¹ and W. Rajapakshe^{2*}

¹Sri Lanka Institute of Information Technology, New Kandy road, Malabe, Sri Lanka.

²SLIIT Business School, Sri Lanka Institute of Information Technology, New Kandy Road, Malabe, Sri Lanka.

Authors' contributions

This work was carried out in collaboration between all authors. Authors AGGSA and PVST designed the study, performed the statistical analysis, and the literature searches. Author WR wrote the protocol, and wrote the first draft of the manuscript, managed the analyses of the study and finalized the study. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/AJEBA/2019/v10i330108

Editor(s):

(1) Dr. Vasillii Erokhin, School of Economics and Management, Harbin Engineering University, China.

Reviewers:

(1) Ahmad Rasmi Albattat, Management and Science University, Malaysia.

(2) Atilla Akbaba, Izmir Katip Çelebi University, Turkey.

Complete Peer review History: <http://www.sdiarticle3.com/review-history/47102>

Received 05 December 2018

Accepted 19 February 2019

Published 11 March 2019

Original Research Article

ABSTRACT

Aims: The objective of the study was to examine how Information Technology (IT) affects the commitment of employees in Airport & Aviation Industry in Sri Lanka (AASL).

Study Design: This study is primarily a survey research, relying mainly on the collection and analysis of primary data collected through a questionnaire.

Methodology: Based on the review of theoretical background and the literature and exploratory interviews with the participants, three determinant on commitment were identify in this study, including usage of IT, IT infrastructure, IT knowledge management. The population of study constituted of 4000 employees in 19 departments in AASL as a population of interest. The study employed purposive sampling method to select six department from 19 in the population and then random sampling method was used to select 250. Structured questionnaires were used in collecting data. The results of Cronbach's alpha values are greater than 0.7 for all variables. To analysis

*Corresponding author: E-mail: wasantha.r@slit.lk;

data, descriptive statistics, correlation analysis, ANOVA and multiple regression analysis were used.

Results: Four hypotheses were tested and all were accepted. Results indicate that employee background on IT, IT infrastructure and IT knowledge management are affecting by 50.4 percent to employee commitment. In addition, results showed that there is a positive and moderate relationship between employee background on IT and IT knowledge management with employee commitment. Moreover, there is a positive and weak relationship between IT infrastructure and employee commitment. The study concluded that Employee background on IT, IT infrastructure and IT knowledge management factors take part in a critical role in influencing the level of employee commitment is a conclusion that was made.

Keywords: Commitment; usage of IT; IT Infrastructure; IT knowledge management; airport & aviation industry in Sri Lanka.

1. INTRODUCTION

Globalization of market and business competition over the previous few years has changed the business landscape. To respond to business competition, organizations are using new information technologies to provide quality services, achieve cost leaderships and attain sustainable competitive advantages. At that movement, employee is an extremely important person for organizations to understand. Employee commitment has significant to both the employees and the organization. To organization, highly committed employees mean, they lower organization cost continuously. Then, to employees, high commitment to the organization and the job reflects their being in respectable condition as well as positive relationship with the organization, which is advantageous to their daily work life. Committed employees will increase the productivity because the employees emotionally feel at one with the organization and work to achieve organizational goals through attain competitive advantages [1]. Moreover, another scholar [2] stated, commitment has three main categories named as affective, continuance and normative commitment. The emotional commitment was negatively relate to withdrawal behavior such as withholding effort, withdrawal from job [3].

Modern information technologies can result in employees' working smoother, providing high-quality service as well as deliver more efficient services to customers. Hence, IT played an important role and maintain accuracy of the information as well as save time. However, the advantage of IT is depended on acceptance of employees and nature of utilization of the system [4]. Regardless of advantages of IT on high quality service at work place, it can be affected employee job satisfaction [4,5,6]. If employee

unable to adopt to the IT changes, they may quit the organization [6]. The relationship between IT and employee commitment cannot ignored [7]. Therefore relationship between employees acceptance of IT adoption has to be studied to improve employees' efficiency, effectiveness and commitment.

This study is to investigate effects for usage of information technology on employee commitment in the Airport and Aviation Service Industry in Sri Lanka (AASL). AASL is an organization, which started to use information technology from most years back and this organization updating and using modern and recent information technology in today. In general, people may think the commitment of every employee in AASL is high and positive. However, from the preliminary survey, it has been recognized that employee performance is changing when adopting new technology. Human resource data showed that operational level employees' performance was gradually decline from 78% in 2016 to 63% in 2108. Moreover, it is revealed that passenger satisfaction might be negative due to use of information technology by employees, when they unable to adopt to the new system. Some of the passenger complaints are about non-friendly staff, the updates of information are slow, delays in systems specially ticketing system, bag handling system, security system, announcements system, etc. [8].

In AASL, it was recognized that among administrators to face the problem of software update. For example, when new software with different command icons and application setting cause time lost and difficult access old data and information will lead to frustration. From the preliminary survey, further, recognized that problems occurred when transferring files new system, opening related software and slowing

down office work. Such a situation affects staff performance, commitment, productivity, emotion, and quality of work.

There has been a debate whether information technology has an effect on employees' commitment. The employees who using information technology highly has a changeable commitment to one another and in some cases employee commitment might be negative [9]. The reason for that is organization can be only benefitted, when different types of problems in the information technology systems and related equipment's caused, and even from time to time, employee capability and knowledge cannot practically apply to their works. Organizations spend giant investments for information technology related training programs to improve their employees' IT knowledge, skills as well as capabilities. However, if information technology knowledge management did not provide properly, IT expert employees in the organization might be discouraged. These problems are caused mostly due to lack of an information technology based on identifying employees appropriately. As a result, employees requires training and support repeatedly [10]. Therefore, the balancing of IT usage and employee satisfaction has become a important to enhance their involvement and commitment [11,12].

These evidence shows that there was some problems in adopting new technology and employee commitment. In human capital management, commitment is different from employee to employee. When concerns about overall employee commitment, organization imagine that, every employee of them has higher commitment and it is positive. However, in real case it cannot be accurate. Employees are the people who have higher diversity. Even though every employee has same facilities, equipment in one work environment the commitment of them is various to each other. If top management of an organization did not understand about this matter in a proper way, that will lead to a giant dispute. Therefore, this study investigating the relationship between IT usage and employee commitment incorporating a case study conducted at Airport and Aviation Service Industry in Sri Lanka (AASL).

The objectives of this study are; (a) to identify how use of information technology and employee commitment, (b) to determine the relationship between employee background on information technology and employee commitment, (c) to determine the relationship between IT

infrastructure and employee commitment, and (d) to determine the relationship between IT knowledge management and employee commitment.

2. LITERATURE REVIEW

Information technology define as a computer mediated work where a task is completed through the medium of the information system rather than physical strength of the employee [13]. An informing technology is designed to upgrade or enrich the work processes [13]. There are many research focusses on to identify how IT impact on employees. Thus, in order to understand how technology impacts employee commitment, it is necessary to examine how technology impacts work place.

The present time is essential to see the relationship between organization and employees is a core function of human resource management [14]. Organization essential to encourage employee commitment due to significant business strategic and practical in information technology. Commitment of employee is significance for both employee and the organization. If employees have higher commitment, then the employee related cost might be lower and if the commitment is high then employees job related reflects are in good working condition as well as have a positive relationship with the organization. The commitment was directly link with organizational culture. There was correlation between commitments of the employees in IT organizations and other related variables appeared one after another. If have negative or low commitment and it will affect negatively to the organization.

Employee commitment has been in the center of growing interests and improvement of organization performance [15]. Because of the continuously development of information technology, lives of employee have become changed [16]. Organizations adopt most recent IT to their organization and employees, at that situation employee commitment might be negative or positive. Thus, achieve high performance, organization want to consider the emotional states of its employees. Organizational commitment defined as a psychological construction of accountability that an employee has towards the vision and objectives of an organization [17]. Further, the organizational commitment of employees can be used to gain employees support for organization and make

the most of the benefits [18]. The relationship between commitment and effort, resistance to change and the negative factors that break down commitment. Researchers briefly presented that there are significant differences between male and female employees commitment. Reason for that, female employees were more affectively and normatively committed than male employees [3]. The employee commitment was determined by their engagement. When they feel fair treatment, gradually increased their commitment for the organization [19].

Information technology influence on product quality, service, and organizational practices to achieve competitive advantage [20]. Information technology discoveries support organizational development however, make challenges too. One of the challenge is IT adoption and how IT use for the strategies [21]. The information technology challenges for long-term protection of electronic information [22].

Nowadays-technological development and logical research have reached their peaks and resulted in many important developments in communication and information technology systems [23]. It is obvious that such a large size (international) airport has many problems or issues to be considered in improving the quality of the services noticeably for both passengers and employee working at the airport using information technology. Additionally to the operation and security, its effective management is of considerable importance. With the information technology system to be constructed in a web environment, companies having little knowledge about the airport will be enlightened with detailed information and given directions. Besides, necessary protections can be taken with high assurance when a problem or an unpredicted case takes place.

Most airports have been still run by independent information systems designed for different parts of the airport system, for instance passenger services, air traffic services and airport management system. In view of the geographical information system (GIS) applications, airport information systems can be easily identified as an operational GIS application. The main objective of geographical information system is to improve the effectiveness and efficiency of the international airport services.

Airports in throughout the world, are struggling to meet the increasing demand for air travel. For

that reason, construction of new infrastructure and improvement of existing facilities are needed. In order to meet mentioned expectation, the necessity of using new information processing technologies has come to a place. An information technology that can provide great advantages due to the accessibility of large amount of spatial data is geographical information systems. An ideal airport IT system should be produced from the combination of a number of sub-systems. Some of these systems include an airport security system, a technology system for terminal services, a flight information system, a system for emergency departments as well as a passenger information system.

Information technological developments should be followed to manage an airport with lowest error and to give best services to airplanes and passengers. In order to build a successful information technology system, data must be structured and managed in a way that helps personnel perform their regular activities much more easily and effectively.

The contributing influences on an individual's attitude towards a new technology in the organization. Beliefs and values, people age, gender and also cognitive ability, organizational social factors were influence to the new information technology [24]. Furthermore, the recent explosions of computer use and accessibility in both academic and work settings have made computer literacy almost compulsory, yet there are many individuals who are unfamiliar with computers and information technology [25]. There are individual differences in computer usage and familiarity and one suggested reason for these differences is computer pressure as well as phobia. Employees' prior experience with organizational change can have an impact on commitment to change [26]. It is possible that before a change initiative is introduced, an employee has a positive or sometimes negative attitude about the willingness to change by prior experiences. The ability to face present changes is based on previous experiences of employees. When a change is announced, unfortunately employees remember past experience that made that they have expectations about the results and possible risks of change.

The impact of computer technology on people and their work condition, and the relative comfort of men and women when using computers [27]. The effect of exposure to computer technology and the idea that men and women differ with

regard to their interest in as well as reaction to technology has received increasing attention. Men, alternatively, are supposedly more interested in mastering computer commands and want computers with recognition as well features that spread their senses. The skill-biased technological changes can be defined as the increase in the relative demand for high-skilled workers over low-skilled workers as a result of the introduction of a radically different and complex information technology in the organization [28]. In other words, high-skilled workers have a higher capacity to grasp the always growing development of new as well as complex instruments used in the job. Information technological progress can be attributed towards skilled uselessness giving rise to skills mismatch (skill gap). The development of a multifaceted electronic communications and information environment for learning and research is bringing into focus new roles for the services and staff with responsibility for improving skilled use of networked information resources [29].

Comparison of older and younger adults' attitudes towards and abilities with computers [30]. Older people's experiences with and attitudes towards computers are negative, for the most part when compared with younger associates. There is a conventional view that older adults are technologically inadequate. Older people were left feeling inadequate and incapable of using computers, lack of learning ability, their being too old and their belief that there was just too much they did not know. IT infrastructure has been viewed as the foundation of IT components (hardware, software, and networks), whereas latest conceptualizations extend IT infrastructure as including shared services, such as data, information, as well as standardized applications. Basically, confirm that organizational capabilities facilitate the impacts of IT infrastructure capabilities on organization performance. That without well-developed IT infrastructures, organization will not succeed in goals and objectives through employees. For that reason, managers must think about IT infrastructure and other IT management capabilities as foundations of organization competitive advantages [31].

Organizational and information technological infrastructures alignment [32]. Furthermore,] the impact of information technology infrastructure flexibility (ITIF) on competitive advantage (CA) of small and medium-sized enterprises (SMEs) [33]. ITIF provides organizations with the ability to

follow dynamic inter-organizational relationships, business process reengineering, diversification of products and services as well as scalability. In addition, other authors [34] agree with the findings of Lim [33]. The concept of ITIF and the similarities found when compared to the concept of manufacturing flexibility and competitive advantage. Sustained competitive advantage is attained by organization implementing strategies that achievement internal strengths, through responding to environmental opportunities, while counterbalancing external threats and avoiding internal weaknesses.

Moreover, information technology has an energetic role in organizations today. Both technical and human components are needed in IT infrastructure management and its development. Information technology infrastructure needs to be well matched and flexible as it affects the business value of information technology in the organization [35]. The impact of information technology infrastructure on innovation performance (product and services). Attain high efficiency and effectiveness in organizations have need of investment on IT components, such as the internet, office automation, and management information system [36].

The role caring about the properties dimensions of IT, emphasize it as it can improve performance, Employee commitment, and improve the level of Knowledge employment, as well as the importance of getting employers and users involved in the process of designing information system and developing it [37]. The types of technology infrastructure are found in an organizational knowledge management systems [38]. Organizations differentiating on the basis of human resource due to its intangible features such knowledge, skills and commitment of workforce increasingly sees it as vital in order to remain sustainable in the competitive market [39]. Training has been increasing productivity of organizations. It does not only improve employees ingeniously, also provides employee with an opportunity to almost learn their jobs and perform more knowledgeably. Another authors investigated the influence of Organizational Information (OI) on Knowledge Management Practices (KMP) [40]. The IT pathway, the emphasis is on using software and the internet to capture information in databases. In the people pathway, emphasis is on creating an environment that care for innovation and the premier possible level of skill utilization. A better

considerate of the effect of OI on KMP can be advantageous for all organizations and policy makers.

2.1 The conceptual model of the study

The conceptual model of the study was developed based on the review of the literature done in the field as shown in Fig. 1.

The research hypotheses of the study are as follows;

- H1: There is a significant effect of usage of IT on employee commitment.
- H2: There is a significant effect of employee background on IT on employee commitment.
- H3: There is a significant effect of IT infrastructure on employee commitment.
- H4: There is a significant effect of IT knowledge management on employee commitment.

3. RESEARCH METHODOLOGY

The study was cross-sectional in nature whereby the purpose is to describe the level of employee's commitment due to the usage of information technology in AASL. This was a survey research which involved collecting data through questionnaire. The level of employee commitment considered as dependent variable and the usage of information technology (IT) consider as independent variable. Usage of IT was measured through three sub dimensions; (1)

employee background on IT, (2) IT infrastructure and (3) IT knowledge management were considered as independent variables.

The questionnaire has used to collect data from the respondents. The questionnaire has two sections. Section one consisted of six questions to collect information about the respondents' profile. Section two was consisted of 40 questions which were related to independent and dependent variables. All these variables were measured by 5 point Likert Scale. Responds' profile was consisted of 6 questions; age, work experience in AASL, department, percentage of IT usage, introduce new IT, and IT related education qualification.

Employee background on IT consisted of 10 questions: (1) employee satisfaction about the IT related past experience, (2) willing to accept more responsibilities, (3) quickly and courteously to fulfill task, (4) glad to spend the rest of job, (5) employee feeling about continuously adoption IT to be a significant part of any organization, (6) willing to accept any changes, (7) age and gender is relevant when using IT and facing IT related problems, (8) will be able to do work better using IT, rather than doing it by manually, (9) glad that chose to work this organization, and (10) 100% committed to their works after the IT changes.

IT infrastructure consisted of 10 questions: (1) provide service successfully when organization using modern software, (2) faced some problems when working with new software, (3) dissatisfy of job when problems occur in use of IT

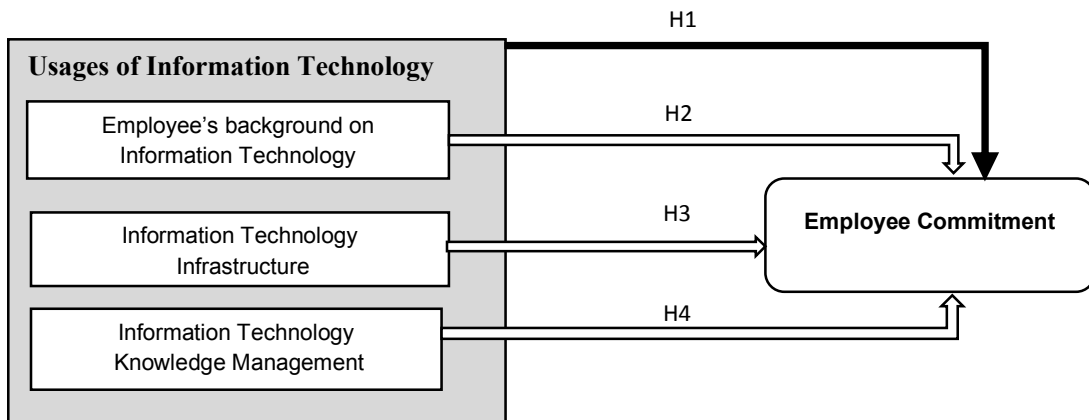


Fig. 1. Conceptual model of the study

components, (4) the software more complex and it make harder accomplish given tasks, (5) the security and safety is high for the software, (6) very comfortable to use hardware, (7) always connect with supervisor and top-level management through online communications, (8) save time using different types of IT systems such as online salary payments, online leave applications and online grievance handling practices, (9) provides the special announcements as soon as possible (10) 100% committed to work with information technology infrastructure.

Information technology KM consisted of 10 questions as : (1) provide good training program regarding the use of IT, (2) participating for every program, (3) excellent support of keeping employee collaboration, (4) good support from department supervisors to face IT related problems, (5) feel for leaving would be the problems cause from IT's support programs, (6) use to learn about IT through internet and etc., (7) after given training, reduce my dislike for IT and IT work related all problems, (8) No need of huge knowledge about IT to work when it, (9) organization want improve their IT related training programs and (10) 100% committed to my work with Information technology knowledge management.

As a final point, employee commitment consisted of 10 questions as : (1) organization is most important part of life, (2) employee feel an important person to this organization, (3) always try to fulfill responsibilities, (4) believe that staff is the best team, (5) highly satisfied with the work environment, (6) satisfied with the supervisors, (7) never hope to leave from organization, (8) enjoyed by the telling peoples in outside about organization's environment, (9) satisfied with the monetary and non-monetary benefits and (10) 100%committed and satisfied with job and organization.

Structured questionnaires were used in collecting data. Questionnaire's content validity was assured by using literature. Pilot survey was

conducted with 25 number of employees to test the reliability. The Cronbach's alpha for measure of internal consistency in the data set, that is, how closely related a set of items are as a specific group. The results of alpha values were noted as a good sign for high internal consistency among items because it was greater than 0.7 for all variables as shown in Table 1, which was the rule of thumb.

The population of the study constituted of 4000 employees from 19 departments in AASL as a population of interest. The study employed purposive sampling method to select six department from 19 from the population. Then random sampling method was used to select 250 from those departments at the 95% confidence level and 5% confidence interval. Out of 200 questionnaire distribution 212 were respondent. To analysis the data, descriptive statistics, ANOVA were used, Moreover, correlational analysis used in order to analyze the extent and the nature of relationships between variables and multiple regression analysis were used to measure linear relationship between dependent variable and each of independent variables.

3.1 Ethical Considerations for Data Collection and Analysis

Written permission to conduct the research study was obtained from the AASL as well as SLIIT. Furthermore, written permission was obtained from the supervisor and module leader. Subjects' consent was obtained before they completed the questionnaires by employees in AASL. The subjects were informed of employee rights to willingly consent or decline to participate, and to withdraw participation at any time without permission from researchers. Subjects were informed about the purpose of the study, the procedures that would be used to collect the data from employees, and assured that there were no potential risks involved for their jobs. Secrecy and privacy of employees were maintained throughout the study. In this study secrecy was ensured by not requesting the

Table 1. Result of reliability test

Variables	Cronbach's Alpha
Employee background on IT	0.753
IT infrastructure	0.855
IT knowledge management	0.835
Employee commitment	0.708
Overall	0.839

Table 2. Demographic/respondents' profile

Demographics	Percent
Age	
20-28 years	25.9
29-36 years	14.6
37-44 years	18.9
45-52 years	25.5
53-60 years	15.1
Length of service at AASL	
Below 1 year	24.1
1-5 year	11.8
5-10 years	16.5
10-20 years	31.6
Above 20 years	16.0
Departments	
Human resource department	28.8
Accounting and finance	14.6
IT department	19.8
Customer service department	18.4
Other	18.4
Usage of IT	
Below 20% IT related work	12.7
21% - 40% IT related work	11.8
41% - 60% IT related work	6.1
61% - 80% IT related work	31.6
81% - 100% IT related work	37.7
IT newly introduce	
Very few	50.5
Yes	49.5
Education qualification relevant to IT	
Through experience with job	12.7
Through IT courses	12.3
Through IT diploma	14.6
Through IT degree	41.0
Through IT postgraduate	19.3

employees name or employment numbers on the questionnaire. Researchers provide assurance in the first page of questionnaire.

4. RESULTS AND DISCUSSION

4.1 Demographic/Respondents' Profile

The demographic information of the respondents' are presented in Table 2. It included age, length of service, department currently work, length of service, education qualification which are relevant to information technology as well as if organization introduce new IT or not and usage of IT as a percentage in respondents' job role. According the results, over 50% respondents are over 36 years old and more than 5 years' service in AASL. More over majority of them has IT

related work and have IT related educational qualification.

4.2 Descriptive Statistics

The employee background on IT variable has a range of 3.9. The maximum and minimum value for employee background of IT is 4.9 and 1.0 respectively. The mean score for this variable is equal to 3.2, with a standard deviation of 0.8. This is the highest mean score and the variance for this variable is 0.7. The IT infrastructure variable has a range of 3.8. The maximum and minimum value for IT infrastructure is 4.9 and 1.1 respectively. The mean score for this variable is equal to 3, with a standard deviation of 1.1. This is the secondly highest mean score and the variance for this variable is 1.2 as presented in Table 3.

The IT knowledge management variable has a range of 3.6. The maximum and minimum value for IT knowledge management is 4.6 and 1 respectively. The mean score for this variable is equal to 2.4, with a standard deviation of 0.9. This is the lowest mean score and the variance for this variable is 0.9. The employee commitment variable has a range of 3.6. The maximum and minimum value for employee commitment is 4.6 and 1 respectively. The mean score for this variable was equal to 3.0 with a standard deviation of 0.6. This is the thirdly highest mean score and the variance for this variable is 0.4 as presented in Table 3.

4.3 Correlation Analysis

Table 4 stated that correlation between employee commitment and employee background on IT is $r=0.5$ which mean, there is a moderate uphill and positive relationship. The number of non-missing observations for employee background on IT is 212. The positive results explained that the two variables tend to increase together. Overall, if employee

background on IT is more supportive to employees then employee commitment might be increase. When employees background on IT with minimum problems the commitment of employees might be high, positively enhanced and improved. The sig (2-tailed) value is 0.000 among employee background on IT and employee commitment. This means that, there is a statistically significant correlation.

The employee background on IT is another component which affects employee commitment. The agreements and disagreements of respondents regarding IT related past experience, IT related skills, risk taking skills, employee involvement, employees IT interesting levels, employee perception, employee belief, self-motivation skills, employee gender and age are the impacts on the above mentioned results. The results show that employee background on IT positively improves employee commitment through the efficient usage of human resources, information sharing, better communicating among the employees and their supervisors hence lead to improve employee commitment.

Table 3. Descriptive statistics

Variable	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Employee background on IT	3.9	1.0	4.9	3.211	0.8485	0.720
IT infrastructure	3.8	1.1	4.9	3.023	1.1054	1.222
IT knowledge management	3.6	1.0	4.6	2.495	0.9776	0.956
Employee commitment	3.6	1.0	4.6	3.020	0.6425	0.413

Table 4. Correlation between independent variables and dependent variable

	Employee background on information technology	Information technology infrastructure	Information technology on knowledge management	Employee commitment
Employee background on IT	1			
IT infrastructure	0.087	1		
IT on knowledge management	0.209**	0.85	1	
Employee commitment	0.518**	0.316**	0.519**	1

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

Table 5. Analysis of variance (ANOVA)

Model	Sum of Squares	df	Mean Square	F	Sig.
1				70.561	.000b
Regression	43.930	3	14.643		
Residual	43.166	208	.208		
Total	87.097	211			

a. Dependent Variable: Organizational Commitment

b. Predictors: (Constant), Usage of IT

Table 4 stated that correlation between IT infrastructure and employee commitment is $r=0.3$ and that result mean, there is a weak and positive relationship. The non-missing observation for IT infrastructure is 212. The positive results explained that the two variables tend to increase together. Overall, if IT infrastructure is more supportive to employees then employee commitment might be increase. The sig (2-tailed) value between employee commitment and IT infrastructure is 0.000. This means that, there is a statistically significant correlation.

The IT infrastructure is another main component, which affects employee commitment. The result is a weak correlation because there are several problems within employees regarding IT infrastructure and majority of employees are not committed for IT infrastructure provided by this organization. The agreements and disagreements of respondents in user-friendly systems, software problems, IT related applications, security provided for IT infrastructure, service requirements and data resources might be the reason for above-mentioned result.

The correlation between IT knowledge management and employee commitment is $r=0.5$ as shown in Table 4 indicated that there is a moderate uphill and positive relationship. The number of non-missing observations for IT knowledge management is 212. The positive results show that the two variables tend to increase together. Overall, if IT knowledge management is more supportive to employees then employee commitment might be increase. When IT knowledge management with minimum problems the commitment of employees might be high, positively enhanced and improved. The sig (2-tailed) value between employee commitment and IT knowledge management is 0.000. This

means that, there is a statistically significant correlation.

The IT knowledge management is another main component which affects employee commitment. The agreements and disagreements of respondents in training programs, supervisor support, self-learning motivations, supportive staff and knowledge sharing are positive might be the reasons for above mentioned result.

4.4 Result of Hypotheses Testing

H1 states that “there is a significant effect of usage of IT on employee commitment”. Table 5, the results of the ANOVA indicates that there is a significant impact usage of IT on employee commitment as p values if equal to .000. Thus the hypothesis one is accepted.

H2 indicates that “there is a significant effect of employee background on IT on employee commitment”, H3, indicates that “there is a significant effect of IT infrastructure on employee commitment” and H4 indicates that “there is a significant effect of IT knowledge management on employee commitment”. Table 6 shows the p value of all independent variables as 0.000, means there is a significant impact on of independent variables organizational commitment. Accordingly, these results explained that employee commitment is depended on employee background on IT, IT infrastructure and IT knowledge management and all hypotheses are accepted.

The R value is 0.7 and the R square value of 0.5 explains that employee background on IT, IT infrastructure and IT knowledge management contributes to 50.4 percent of the variance to the employee commitment while the other factors contribute for 49.6 percent of the variability. That

Table 6. Multiple regression analysis of independent variables

	Un-std Coefficient B	Std Coefficient Beta	t	p
(Constant)	0.915		5.974	.000
Employee background on IT	0.311	.411	8.210	.000
IT infrastructure	0.142	.245	4.983	.000
IT knowledge management	0.271	.412	8.240	.000

Notes: $R = 0.710$; $R^2 = 0.504$; Adjusted $R^2 = 0.497$; Std. error of estimation = 0.4556;
 $F = 70.561$ (0.000). * $p < .05$

a. Dependent variable: Employee commitment (constant).

means there is 50.4 percent impact of independent variables to dependent variable. This means employee background on IT, IT infrastructure and IT knowledge management are affecting by 50.4 percent to employee commitment.

Table 6 shows that adjusted R^2 is 0.4 which shows a positive value. Adjusted R-square value is always close to R-square as well as it is always lower than R-square. The R-square is 0.5 which is a close value to adjusted R^2 and also lesser than R square. According to regression results shown in Table 5, the adjusted R-square explained 40 percent of the variation in the dependent variable (employee commitment) whereas 60 percent is unexplained. Standard error of the regression is 0.4.

B_1 (employee background on IT) = coefficient of 0.3 result explains that any increase in variable employee background on IT and it is expected to increase by 31.1 percent in employee commitment as well. A change in the value of IT employee background on IT will lead to a 0.3 times direct changes in the employee commitment. Table 3 results of standardized beta 0.4 indicated that employee background on IT had the strongest impact on employee commitment. Employee background on IT obtained the second largest beta.

T value of employee background on IT is 8.2 with a significance level of 0.000 (sig <0.05) and that significant p value is less than 0.05 which indicates that the employee background on IT is a significant predictor of the employee commitment (dependent variable), assuming the other variables (IT infrastructure & IT knowledge management) constant. Thus, the two variables are positively related. B_2 (IT infrastructure) = coefficient of 0.1, which explains that, increase in variable IT infrastructure is expected to increase the employee commitment of 14.2 percent as well. A change in the value of IT infrastructure will lead to a 0.1 times direct changes in the variable employee commitment. When 0.1 of coefficients increase in IT infrastructure, employee commitment also predicted to be higher. The results of standardized beta 0.2 indicated that IT infrastructure had the strongest impact on employee commitment. IT infrastructure obtained the lowest beta.

T value of IT infrastructure is 4.9 with a significance level of 0.000 (sig < 0.05) as well as that significant p value is less than 0.05 which

specifies that the IT infrastructure is a significant predictor of the dependent variable, assuming other variables (employee background on IT & IT knowledge management) constant. Thus, the two variables are positively related. B_3 (IT knowledge management) = coefficient of 0.2, which explains that, increase in variable IT knowledge management is expected to increase the employee commitment of 27.1 percent as well. A changes caused in IT knowledge management will lead to a 0.2 times direct changes in the employee commitment. The results of standardized beta 0.4 indicated that IT knowledge management had the strongest impact on employee commitment. IT knowledge management obtained the largest beta.

T value of IT knowledge management is 8.2 with a significance level of 0.000 (sig < 0.05) as well as that significant p value is less than 0.05 which indicates that the usage of IT (independent variable) is a significant predictor of the employee commitment (dependent variable), assuming other variables (IT infrastructure & employee background on IT) constant. Thus, these two variables are positively related.

The value of $F = 70.5$ with significant value (p) = 0.000 is smaller when compared to 0.05. This result specifies, overall the regression model statistically significantly predicts the outcome variable and p value is the significant ANOVA. Through that it clearly shows employee background on IT, IT infrastructure sand IT knowledge management which is the independent variables of this study, reliably predict the employee commitment. Through the results it shows that there is a significance relationship between independent and dependent variables. F value explained that model is fit for the data in the study.

5. DISCUSSION AND CONCLUSION

The purpose of this study was to investigate the relationship between employee background on IT, IT infrastructure and IT knowledge management and employee commitment. To achieve the objectives, four hypotheses were tested and all were accepted. The results of the study confirmed that all independent variables have positively and significantly impact towards dependent variable. Objective two is to determine the relationship between employee backgrounds on information technology on employee commitment. Through the results it clearly shows that there is a moderate uphill and

positive relationship between employee background on IT and employee commitment. According to that the objective two of this study had achieved. Objective three is to determine the relationship between IT infrastructure on employee commitment. Through the results it clearly shows that there is a weak and positive relationship between IT infrastructure and employee commitment. The objective three of this study had achieved. Objective four is to determine the relationship between IT knowledge management and employee commitment. Through the results it clearly shows that there is a moderate uphill and positive relationship between IT knowledge management and employee commitment. Therefore, the objective four of the study was achieved. Objective one is to determine the factors those affect the usage of information technology. This is the main objective of the study. The above mentioned factors are which divided for the easiness of usage of IT which is the main independent variable of this study. These independent variables have positive and significance relationship with dependent variable. The factors which determined are the employee background of IT, IT infrastructure and IT knowledge management. Therefore, main objective of the study was achieved.

Researches had presented some recommendations for the management. As a result of this study following recommendations are offered by the researchers. Management of AASL can pay more attention to the development of IT infrastructure (hardware, software, etc.) and should make employees user friendly to IT infrastructure of the organization as well. Through advanced workshops, training programs, etc. shall be conducted in order to enhance employees' ability on IT infrastructures.

The findings of the study proved that employee commitment to the organization was influenced by existence of training and development and it is therefore recommended that the company should increase employee training in order to support for employee commitment. These training and development programs should be designed in a way that enables employees to gain knowledge and skill of IT for present job and for the next higher job as well. The result of the study is confirmed by previous studies. There was a strongest positive correlation with employees work background and employee commitment [41]. In the same context, another research confirmed that IT infrastructure would

have a positive effect on the commitments [31]. Essentially, results approved that commitment is facilitate the impact of capabilities in IT infrastructure on commitment. These conclusions were in parallel with another research [42]. In accordance with the findings, IT KM, training programs has a positive and strong correlation with development, on the job, on time training and off the job training and job performance [42].

Employee background on IT and employee commitment has positive and significant relationship to each other [43]. It's proved that high information technology employees will leave the organization if their skills are underutilized also support the conclusion. There is a statistically significant association between IT infrastructure and employee performance in accordance with regression analysis [33]. In addition, King [34], stated through KM, organizations seek to obtain possibly useful knowledge and make that obtainable to those who can use it which are appropriate for them. Then organization seek to achieve the maximum usage and through that try to influence organizational performance positively. If organization believed this, then the utilization of effective knowledge can be increased by only small percentage and that will be result top greater benefits.

6. RECOMMENDATION, LIMITATIONS AND FURTHER RESEARCH

Organization should think positively to enhance employee commitment in their organization by supporting the different scope of information technology. Such as: employee background on IT, IT infrastructure & IT knowledge management. This can be done by providing periodic feedback from their employees' regarding employee background on IT, IT infrastructure & IT knowledge management. Provide specific training & development programs for employees to use IT efficiently, involving them more in IT knowledge management, and providing them with more information technology hardware and software, would have introduce adequate information technology applications and systems as needed. The management also should effectively use information technology, through that can improve employee commitment.

The target population of the study consisted of only employees at Katunayaka airport & aviation

(headquarters). A limitation of this study is that the sample used was less representative. The sample was taken only from one location. AASL branches are located in other areas also. Such as: Hambantotala, Thalahena, Ratmalana, etc. The present study is about usage of IT on employee commitment. Employee commitment, as a physiological feeling, is subjected to the many factors. Therefore, the validity of data might be affected by the subjectivity of informants.

The following future research recommendations made based on the findings from this study. The overall findings of this research can be used to give hints and suggestions on the directions for future research. Since the study variables only account for 50.4 percent of the changes in the employee commitment, it means that 49.6 percent of the employee commitment is determined by other factors. Therefore, a future study can be done using different variables to determine their effect on employee commitment. Some of the factors can be job satisfaction, work environment, supervisor support, employee retention, career opportunities, work life policies and job characteristics, etc. Through that can obtain in depth understanding of their relationship. This study recommends to be done to imitate other sectors of the employee commitment to find out the effect of information technology on the employee commitment of the firms. Through that can expand the study. That may provide useful information for AASL managers. In future research, if researches have time and opportunity to the sample then sample could have been enlarged.

In order to address future research, researches should target samples that may be generalized to larger populations. This study was limited to respondents in Katunayaka airport & aviation service industry which is the headquarters of AASL. Perhaps future research could examine all of the branches of ASSL which are located in Hambantota, Ratmalana, Thalahena, etc. This will help to explore the effect of differences of employee commitment in aviation industry. Through these, future researchers can judge the commitment of the employees to see how committed employees can perform better in different sectors of aviation industry.

CONSENT AND ETHICAL APPROVAL

Written permission to conduct the research study was obtained from the AASL as well as SLIIT.

Furthermore, written permission was obtained from the supervisor and module leader. Subjects' consent was obtained before they completed the questionnaires by employees in AASL. The subjects were informed of employee rights to willingly consent or decline to participate, and to withdraw participation at any time without permission from researchers. Subjects were informed about the purpose of the study, the procedures that would be used to collect the data from employees, and assured that there were no potential risks involved for their jobs. Secrecy and privacy of employees were maintained throughout the study. In this study secrecy was ensured by not requesting the employees name or employment numbers on the questionnaire. Researchers provide assurance in the first page of questionnaire.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Renyut BC, Modding HB, Bima J, Sukmawati S. The effect of organizational commitment, competence on job satisfaction and employees' performance in Maluku Governor's Office. *Journal of Business and Management*. 2017;19(11): 18-29.
2. Wołowska A. Determinants of organizational commitment. *Human Resources Management & Ergonomics*. 2014;8(1):129-146.
3. Janoniene GG, Endriulaitiene A. Employees' organizational commitment: its negative aspects for organizations. *Social and Behavioral Sciences*. 2014;140(2014): 558-564.
4. Parvin MM, Nurul Kabir MM. Factors affecting employee job satisfaction of pharmaceutical sector. *Australian Journal of Business and Management Research*. 2011;1(9):113-123.
5. Steven W, Schmidt. The relationship between satisfaction with workplace training and overall job satisfaction. *Human Resource Development Quarterly*. 2007; 18(4):481-498.
6. Wahab E, Umar A, Shamsuddin A. A qualitative inquiry of organizational commitment on the relationship between technology characteristics and technology

- adoption. *Journal of economics, business and management*. 2015;5(9):904-907.
7. Danziger J, Dunkle D. Information technology and worker satisfaction. Center for research on information technology and organizations; 2005.
 8. Skytrax. Airport and aviation customer review; 2018. [Online] Available:<https://www.airlinequality.com/airport-reviews/colombo-airport/> [Accessed 06th April 2018].
 9. Sadiq U, Khan AF, Ikhlaq K, Mujtaba BG. The impact of information systems on the performance of human resources department. *Journal of Business Studies*. 2012;3(4):77-91.
 10. Yaghoubi NM, Yazdani BO, Ahoorani N, Banihashemi SA. Information technology infrastructures and knowledge management: Towards organizational excellence. *Computer and Information Science*. 2011;4(5):20-27.
 11. Floyd SW, Wolf C. Technology Strategy. In: Narayanan, V.K. and O'Connor, G.C. (eds.) *Encyclopedia of technology and innovation management*. West Sussex: Wiley. 2010;125-128. ISBN 1-4051-6049-7.
 12. Harry J, Martin. Improving training impact through effective follow-up: techniques and their application, *Journal of Management Development*. 2010;29(6):520-534.
 13. Zuboff S. Automate-Informate: The new faces of intelligent technology. *Organizational Dynamics*. 1985;14:5-18.
 14. Huang X, Wang Q. A research on the influential factors to organizational commitment in IT industry. International conference on management engineering and management innovation. Atlantis Press. [Online] 2015;201-208. Available: <https://download.atlantispress.com/article/16209.pdf> [Accessed 02nd April 2018].
 15. Abrahamyan L, Mirzoyan T, Santos JFL. An investigation into the relationship between the commitment of employees and their performance. Degree Thesis. Blekinge Institute of Technology, Sweden; 2014.
 16. Qiu W. Impact of techno stress on job satisfaction and organization commitment. Degree of masters of management. Massey University, New Zealand; 2013.
 17. Chelliah S, Sundarapandiyan N, Vinoth B. A research on employees' organizational commitment in organizations: a case of SMEs in Malaysia. *International Journal of Managerial Studies and Research*. 2015; 3(7):10-18.
 18. Osa IG, Amos IO. The impact of organizational commitment on employees productivity: A case study of Nigeria brewery, plc. *International Journal of Research in Business Management*. 2014;2(9):107-122.
 19. Seifert M, Brockner J, Bianchi EC, Moon H. How workplace fairness affects employee commitment. *MITS Loan Management Review*. 2016;57(2):1518.
 20. Mousavi SS, Abady MBA. The role of information technology in organizational procedures' improvement with knowledge based approach-a study of the Iranian taxation affairs organization. *World Applied Sciences Journal*. 2008;3(2):55-66.
 21. Sibanda M, Ramrathan D. Influence of information technology on organization strategy. *Foundations of Management*. 2017;9(1):191-202.
 22. Asproth V. Information technology challenges for long-term preservation of electronic information. *International Journal of Public Information Systems*. 2005;1(1): 27-37.
 23. Kavzoglu T, Yilmaz E, Sesli AF. A case study for an airport information system. *Geosense*. 2006;11(1):29-38.
 24. Bill DT. Contributing influences on an individual's attitude towards a new technology in the workplace. *Liquid knowledge group*; 2003. [Online] Available:<http://www.liquidknowledgegroup.com/Media/ArticleFiles/Contributing%20Influences%20on%20an%20Individual.pdf> [Accessed 5th October 2018]. 1-5.
 25. Arthur W, Hart D. Empirical relationships between cognitive ability and computer familiarity. *Computer Familiarity*. 1989; 22(4):2-7.
 26. Foks M. Antecedents of commitment to change. *Scribbr*. [Online] 2015;2-28. Available:https://essay.utwente.nl/66942/1/Foks%20Mieke_s%201388215%20scriptie.pdf Accessed 5th October 2018]
 27. Ray CM, Sormunen C, Harris TM. Men's and women's attitudes toward computer technology: A comparison. *Office systems Research Journal*. 1999;17(1):1-8.
 28. Santoso G. Technology as a driver of skills obsolescence and skills mismatch: Implications for the Labor Market, Society and the Economy. 2012;49-58.

29. Pettenati MC, Giulil D, Khaled OA. Information technology and staff development: Issues and problems related to new skills and competence acquisition. 2011;1-19.
30. Broady T, Chan A, Caputi P. Comparison of older and younger adults' attitudes towards and abilities with computers: Implications for training and learning. *British Journal of Educational Technology*. 2010;41(3):473-485.
31. Mithas S, Ramasubbu N, Sambamurthy V. How information management capability influences firm performance. *MIS Quarterly*. 2011;35(1):237-256.
32. Croteau AM, Solomon S, Raymond L, Bergeron F. Organizational and technological infrastructures alignment. *Proceedings of the 34th Annual Hawaii International Conference on System Sciences*, 06th January 2001, Maui, USA. IEEE. 2001;1-10.
33. Lim S, Trimi S. Impact of information technology infrastructure flexibility on the competitive advantage of small and medium sized-enterprises. *Journal of Business & Management*. 2014;3(1):1-12.
34. Turner DE, Lankford WM. Information technology infrastructure: A historical perspective of flexibility. *A Publication of the Association of Management*. 2005;16(2):37-43.
35. Sirkemaa S. Towards information technology infrastructure management. *Journal of Emerging Trends in Computing and Information Sciences*. 2015;6(11):614-618.
36. Jabbourab NI, Sirona R, Zaharic I, Khalida M. Impact of information technology infrastructure on innovation performance: An empirical study on private universities in Iraq. *Procedia Economics and Finance*; 2016. [Online] DOI:10.1016/S2212-5671(16)30250-7 [Accessed 17th July 2018].
37. Allahawiah A, Mobaideen HA, Nawaiseh KA. The impact of information technology on knowledge management processes an empirical study in the Arab potash company. *International Business Research*. 2013;6(1):235-250.
38. Bharadwaj SS, Chauhan S, Raman A. Impact of knowledge management capabilities on knowledge management effectiveness in Indian organizations. *The Journal for Decision Makers*. 2015;40(4): 421-434.
39. Fard RY, Nda MM. The impact of employee training and development on employee productivity. *Global Journal of Commerce & Management Perspective*. 2013;2(6):91-93.
40. Sharabati AA, Hawajreh KM. The impact of organizational information on knowledge management practices. *International Journal of Business and Social Science*. 2012;3(24):121-125.
41. Mayer JD, Salovey P, Yoo SH, Caruso DR. *The positive psychology of emotional intelligence*. [Online] USA, Oxford University Press Publishing; 2012.
42. Amin A, Saeed R, Lodhi RN, Mizna, Simra, Iqbal A, Tehreem R. The impact of employees training on the job performance in education sector of Pakistan. *Middle-East Journal of Scientific Research*. 2013;17(9):1273-1278.
43. McEachern RW. Problems in service learning and technical/professional writing: Incorporating the perspective of nonprofit management. *Technical Communication Quarterly*. 2001;10(2):211-224.

© 2019 Abeyrathna et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:
The peer review history for this paper can be accessed here:
<http://www.sdiarticle3.com/review-history/47102>