Multi-Knowledge Electronic Comprehensive Journal For Education And Science Publications (MECSJ)
ISSUE (27), December (2019)
ISSN: **2616-9185**

www.mecsi.com

Employees' Attitudes toward Electronic Monitoring

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Abstract

Electronic monitoring is a rapidly growing phenomenon in Saudi organizations. The Majority of Saudi organizations today use electronic technology to monitor their employee activities. Managers justify electronic monitoring in terms of protecting the company's confidential information, preventing the misuse resources while uplifting the quality of work and increasing productivity. On the other hand, employees' attitudes toward electronic monitoring is a controversial issue. Therefore, this study empirically investigated the employees' attitudes towards electronic monitoring. Based on simple random sampling, data were collected from 178 employees in three companies, by administrating a structured questionnaire in which items were of 5-point Lickert scale. In this study, Perceived Violation of Privacy (PVOP) was negatively correlated with employees' attitudes toward electronic monitoring. Therefore, the organizations should take proper actions to eliminate this perception by increasing the awareness level among employees. On the other hand, Perceived Level of Productivity (PLOP), Perceived Rate of Tardiness (PROT), Perceived Fair Evaluation of Performance (PFEP), and Perceived Job Satisfaction (PJS) were positively correlated with attitudes toward electronic monitoring. Therefore, it is necessary for the organizations to reinforce these attitudes through actions appropriate with the data resulted from electronic monitoring systems.

Keywords: Employees Attitudes, Electronic Monitoring, Finger Print Reader, Digital Camera, Telephone Calls Recorder, Network Monitoring.

1. Introduction

Monitoring is one of the most important functions of management. Therefore, without implementing the proper monitoring over the resources of the organization, it will be difficult for the organization to achieve its goals. Considering humans as one of the main resources of organizations, monitoring employees is very important. Multiple monitoring objectives can be set as needed by the organization. The broad objective of monitoring employees is to ensure achieving organizational goals. Other objectives include evaluating behaviors, making sure to utilize the organization's resources efficiently, tracking the employees' job performance to ensure that the performance is complying with the required standards, and enabling the manager to evaluate employees fairly.

In addition, technological advances have a dramatic impact on all management functions, especially in the aspect of employees monitoring where technological advances have enabled the manager or employer to increase the effectiveness of monitoring. Today, applying electronic monitoring enables the manager to check the employees' attendance through finger print readers, monitor employee's behavior during work hours by digital camera, record employee's telephone calls, and track and review all computers, E-mail and internet activities by each individual computer installed as a part of organization network. All of these reported to the manager regularly or when required.

For the purpose of this research, electronic monitoring refers to the use of electronic devices such as finger print reader, digital camera, telephone calls recorder, and network monitoring to automatically collect, store, analyze and report all information related to employee activities at the workplace. All of these devices linked together as a part of network system installed in most of organizations today.

From the manager or employer point of view, electronic monitoring is clearly important. There are many reasons to monitor employees electronically such as preventing the misuse of the company's resources, monitoring employee's performance, ensuring that company security not breached, and guarding against legal liability for employees statements or actions (Ariss, 2002). Other reasons could be the cost control of the use of the company's resources, productivity, security and safety concerns (Al-Rjoub et al, 2008). In addition, managers claim that applying electronic monitoring in the work place has many advantages. It could help reduce employees' misconduct, increase productivity, allow employees to communicate effectively and efficiently with others, and prevent leakage of confidential information (Lee et al, 2003).

On the other hand, employees' attitudes toward this type of monitoring is a controversial issue. The objective of this paper is to study the employees' attitudes toward E-monitoring from different aspects including privacy, productivity, job satisfaction, fair evaluation of job performance, and rate of employee's tardiness. The objective of this paper is to answer the following research questions:

Q1: Does applying electronic monitoring in the workplace violate the privacy rights of the employee or not?

Q2: Does applying electronic monitoring in the workplace increase the employees' productivity or not?

Q3: Does applying electronic monitoring in the workplace reduce the rate of the employees' tardiness or not?

Q4: Does applying electronic monitoring in the workplace lead to fair evaluation of job performance or not?

Q5: Does applying electronic monitoring in the workplace increase job satisfaction or not?

Q6: What are the factors that affect the employees' attitudes towards electronic monitoring?

2. Theoretical Background

2.1 Electronic monitoring and privacy rights:

While there is no doubt that monitoring employees can benefit an organization, it raises concerns about employees' privacy. However, employers feel it is their right to monitor their employees in any way they wish, since those employees are using company-owned equipment on company paid time (Ariss, 2002). In addition, employers believed that employees might use organizational resources such as computers or internet access for their personal use, which is against organizational policies (Friedman and Reed, 2007).

On the other hand, Lee et al. (2003) stated employees assert that electronic monitoring violates their privacy, infringes on their human dignity. According to Samaranayake and Gamage (2012), seventy five percent of employees believed that electronic monitoring violates their privacy at work. Some studies conclude that absence of clear policies regarding electronic monitoring leads employees to believe electronic monitoring violate their privacy (Friedman and Reed, 2007). Chen et al. (2008) pointed out that the utilization of electronic monitoring systems creates many privacy concerns, based on surveys with employees and privacy groups. Also, Cohen (2008) contended that employers should put a limit on the use of electronic monitoring systems in the workplace to accept the privacy of employees. Wakefield (2004) studied that, as an employer, it is recommended that organizations have a written policy clearly stating that any right to privacy is waived for documents and messages created, stored, sent or received on the organization’s computer systems or over its networks. He further asserts that the clear-cut policies set boundaries, establish employees’ expectations of privacy, and help set a workplace tone that conveys organizational responsibility and respect for others.

H1: Employees' attitudes toward electronic monitoring are influenced by their perceived violation of privacy.

2.2 Electronic monitoring and employees' productivity:

Employees' productivity is the amount of work produced by an employee in a given period. It refers to the employee's ability to produce the standard amount or number of products, services or outcomes as described in a work description. The productivity of employee can be measured in term of quality, quantity and time (Balyan, 2011). Managers are much more aware and nervous about productivity. For this reason, they provide electronic services to track their employees as an efficient and effective means of facilitating business process. Managers claim that electronic monitoring ensures proper use of time and courteous response to customers. They argued that electronic monitoring leads to increased employees' productivity (Effy Oz et al, 2000; Lee et al, 2003).

On the other hand, employees stated that electronic monitoring has serious negative effects on them. They said monitoring leads to stress, an unhealthy physical condition and a decline in loyalty. These factors decrease their productivity (Lee et al, 2003). The study of Al-Rjoub et al (2008) reports that 58.9% of employees see that applying electronic monitoring does not increase employees' productivity. Johnston and Cheng (2002) found that employees who have had their performance technologically monitored had a decrease in productivity.

H2: Employees' attitudes toward electronic monitoring are influenced by their perceived ability to accomplish the required level of productivity.

2.3 Electronic monitoring and employees' tardiness:

Often, employers believe that electronic monitoring is critical to maintain employees' behavior, ensure the quality of work and compliance with workplace policies (Samaranayake and Gamage, 2012). According to Ariss (2002), managers believed that electronic monitoring led to improving employees' behavior, make them more disciplined and compliant with organizational policies because it provides the employer with the ability to track employees' actions and report on them.

The study of Al-Rjoub et al. (2008) reported 64.7% of employees believe that electronic monitoring can help them to control their inappropriate behavior or to adjust the incorrect behavior. Also, the same percentage stated that it eliminates lazy worker. Lee et al (2003) and Monahan (2006) reported that employees assert that electronic monitoring impacts their attitudes and their work-related behaviors, which force them to follow the organizational systems strictly, make them committed to time attendance; decrease the rate of roaming through organizational facilities. Umpress et al. (2003) believed that the decrease in absenteeism and tardiness are part of positive consequences of applying electronic monitoring.

H3: Employees' attitudes toward electronic monitoring are influenced by their perceived rate of tardiness.

2.4 Electronic monitoring and fair evaluation of job performance:

Electronic devices and computerized work measurement enable managers efficiently and effectively to monitor the activities individual employee. They also help to measure the performance of employees properly. Most of the common reasons given for electronic monitoring include performance reviews and evaluation of job performance. Managers argue that they can fairly evaluate employees' performance because electronic monitoring gives employers a clear picture of which employees are hard workers and which are unproductive (Samaranayake and Gamage, 2012). According to Lee et al (2003), managers claim that because the employees' efforts on the job reflected on performance appraisals, employees become more committed. Scott and Kiker (2008) reported 64.2% of employees believed that electronic monitoring provides the appropriate data to the managers, which enables them to evaluate their performance fairly. In addition, according to the study by Jeske (2011), employees said electronic monitoring is extensively used by their supervisors to evaluate performance including attendance, quality and quantity of their work, and fair evaluation of their performance.

H4: Employees' attitudes toward electronic monitoring are influenced by their perceived fair evaluation of their performance.

2.5 Electronic monitoring and job satisfaction:

The most-used research definition of job satisfaction is by Locke (1976), who defined it as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences". Several surveys of electronically monitored employees seem to substantiate the negative effects of electronic monitoring on employees' satisfaction and stress. According to Al-Rjoub et al. (2008), one of the negative consequences from applying electronic monitoring is the decreasing in job interest, which transforms the workplace to become more mistrust and hostile work environment and makes the employees feel less satisfied with their job and start looking for other secure job opportunities. Scott and Kiker (2008) reported that the presence of electronic monitoring would have a deleterious effect on employees' satisfaction and stress. Employees reported less satisfaction and greater amounts of stress than employees not similarly monitored. In addition, the study of Samaranayake and Gamage (2012) showed that employees who are working in an electronically monitored environment believed that electronic monitoring makes their tasks more complex and rather dissatisfied in their jobs.

H5: Employees' attitudes toward electronic monitoring are influenced by their perceived job satisfaction.

3. Methodology

3.1 Conceptual framework:

In this study, employees' attitudes toward electronic monitoring is measured on five aspects including perceived violation of privacy (PVOP), perceived Level of employees' productivity (PLOP), perceived rate of employees' tardiness (PROT), perceived fair evaluation of job performance (PFEP), and perceived job Satisfaction (PJS). These are the independent variables. PVOP means whether electronic monitoring viewed as something that violates the employee's privacy at work or not. This variable measured by two dimensions, which are relevance to work and the violation of various electronic monitoring types applied in the workplace. PLOP means whether electronic monitoring viewed as something that decreases or increases employees' productivity. This variable measures seven dimensions, which are time availability, quality and quantity of work, stress, loyalty, work complexity, and organizational environment. PROT means whether electronic monitoring viewed something that maintain employees' behavior or not. This variable measures three dimensions, which are rate of absence, attendance, and presence or slack off at work location. PFEP means whether electronic monitoring viewed as something that leads to fair rewards, compensation, commission, and promotions or not. This variable measures five dimensions, which are complete picture of performance, better feedback, rewards, commissions, and promotions. PJS refers to whether electronic monitoring viewed as something which increases or decreases job satisfaction. This variable measures three dimensions, which are complexity, stress, and organizational environment. The dependent variable is Employees' attitudes toward electronic monitoring (EAEM) and it is measured on nine dimensions, which are loyalty, stress, trust, complexity, organizational environment, relying on data, relation with supervisor, finding another job opportunity, and comfortable. The conceptual framework proposed for this study illustrated in figure 1.

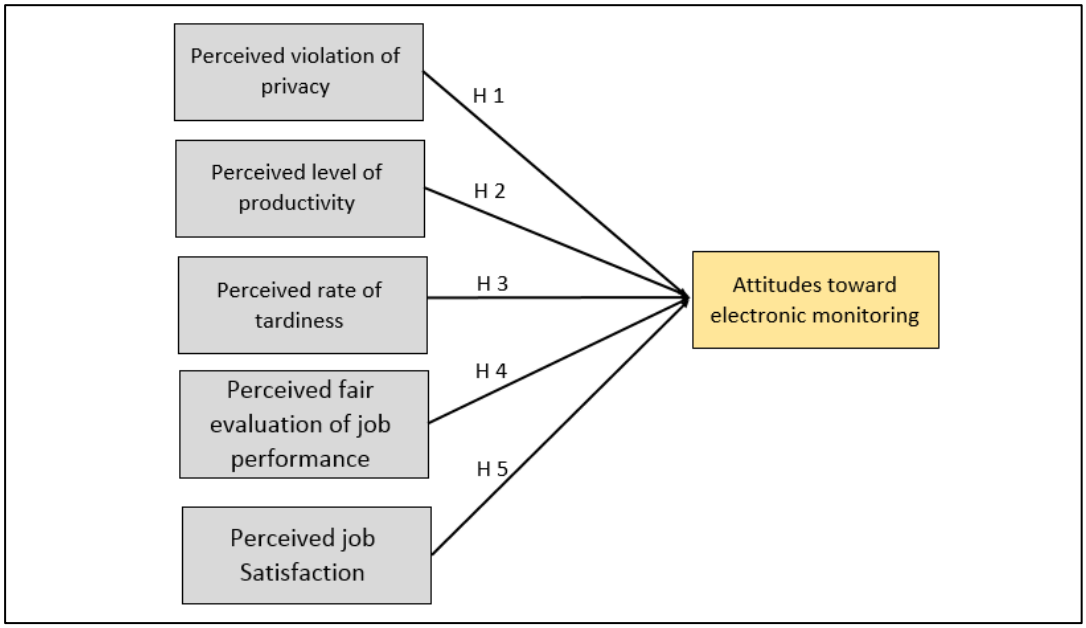

Figure 1: Conceptual framework

3.2 Method of data collection:

The questionnaire consist of thirty- two questions. The five point Likert scale (1 = Strongly disagree, 5 = Strongly agree) is used to rate the employees' attitudes toward electronic monitoring. Once the questionnaire instrument designed, a pilot study was carried out by the researcher to ensure the reliability of the questionnaire. Questionnaire was made available for the target respondents online. Five hypotheses were developed to examine relevant issues associated with employees' attitudes toward electronic monitoring.

3.3 Population and sample size:

The target population for this research is the employees that electronically monitored at the workplace. Sample size for this study was 178 from three companies. Two of them are in asset management business such as brokerage and investment banking while the third company is broadly in health care business.

All of these companies applying various types of electronic monitoring equipment, which include Finger print reader, Digital cameras, telephone call recorder, and computer and internet monitoring systems. Simple random sampling was used across the target population.

4. Analysis and Interpretation

4.1 Reliability of experimental sample:

A pilot survey was distributed to 30 respondents to ensure high reliability and validity of the questionnaire. Cronbach's Alpha calculated for all variables as follows: Perceived violation of privacy (PVOP) resulted in a relatively low score of 0.562. After removing two statements, a reasonable score of 0.809 was obtained. Perceived level of Productivity (PLOP) and Perceived rate of employees' tardiness (PROT) resulted in acceptable reliability score of 0.959 and 0.945 consequently. Therefore, no statements deleted in these variables. Perceived fair evaluation of job performance (PFEP) resulted in a relatively low score of 0.631. After removing one item, a reasonable score of 0.984 was obtained. Perceived Job satisfaction (PJS) has given acceptable reliability score of 0.861 and no statements deleted in this variable.

On the other hand, Cronbach's Alpha of single dependent variable (Employees' attitudes toward Electronic monitoring, EAEM) resulted in an acceptable reliability score of 0.955.

Finally, the reliability test was carried out for the entire sample of 178 respondents. The Cronbach's Alpha coefficient for all variables and dimensions was above 0.923. Perceived violation of privacy (PVOP) resulted in a score of 0.810. Perceived level of Productivity (PLOP) resulted in a score of 0.968. Perceived rate of employees' tardiness (PROT) resulted in a score of 0.948. Perceived fair evaluation of job performance (PFEP) resulted in a score of 0.967. Perceived Job satisfaction (PJS) resulted in a score of 0.918. Employees' attitudes toward Electronic monitoring (EAEM) resulted in a score of 0.928

4.2 Appropriateness of sample:

A descriptive statistical analysis used to display the socio-demographic characteristics of the respondents. The sample contained 115 (64.6%) males, and 63 (35.4%) females. Regarding respondents' age, 38 respondents (21.3%) were less than 25 years, 65 (36.5%) were between 26 – 32 years, 67 (37.5%) were between 33 – 40 years, 6 (3.4%) were between 41 – 47 years, and 2 (1.1%) over than 47 years. In addition, frequency analysis revealed that 8 respondents (4.5%) had higher education degree, 123 (69.1%) had a bachelor degree, 32 (18%) had a diploma, and 15 respondents (8.4%) had a high school degree. Regarding years of experience, 65 respondents (36.5%) had less than 5 years, 37 (20.8%) had 5 – 10 years, 58 (32.6%) has 10 – 15 years, 12 (6.7) had 15 – 25 years, and 6 respondents (3.4) had more than 25 years.

The study shows that 91.6% of employees believed that the company should have clear policies showing them exactly what types of electronic monitoring are used. The same percentage believed that the company should have clear policies showing employees exactly what these systems are used for. 68.5% of employees clearly understand what data are collected by electronic monitoring. 58.4% of employees clearly understand the objectives behind the collection of data by electronic monitoring systems.

4.3 Hypothesis testing:

In order to test hypotheses, mean and standard deviation for each statement were calculated. In addition, inferential statistics with Pearson's correlation matrix, multiple comparison tables, and regression analysis were also used as follow:

HYPOTHESIS 1: Employees' attitudes toward electronic monitoring are influenced by their perceived violation of privacy.

As shown in Table 1, employees believed that the company does not have the right to monitor them as it sees fit. In contrast, employees accept applying electronic monitoring in the work place when it is related to the work.

In addition, employees believed that the digital camera, and telephone calls recorder violate their privacy, while computer and internet monitoring are not violate their privacy right.

Table 1: PVOP Items

Items	Mean	Std. Deviation
The company has the right to monitor employees electronically as it sees fit.	1.4809	1.09042
I accept applying electronic monitoring in the work place when it is related to the work.	4.0348	.48284
Using digital camera in the work place violates my privacy right.	2.7798	1.29372
Using telephone calls recorder in the work place violates my privacy right.	2.°663	1.46965
Using computer and internet activity monitoring in the work place violates my privacy right.	2.0955	1.08762
PVOP	2.59146	.85511

ANOVA test was used to study if there is significant difference among gender groups with respect to PVOP. As shown in Table 2, *F* value of 3.281 is significant at 0.012 level. Therefore, there is a difference between employees' gender and their PVOP.

Table 2: Significant difference among gender groups in their PVOP

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.368	1	2.368	3.281	.012
Within Groups	127.056	176	.122		
Total	129.424	177			

The Independent sample T- test provides mean and standard deviation for each gender groups. It is clear that the females are more concerned about the violation of privacy than males,

as shown in Table 3.

Table 3: Independent sample T- test among gender groups in their PVOP

Gender		N	Mean	Std. Deviation
PVOP	Male	115	2.5461	.90856
	Female	63	3.1573	.65901

In addition, multiple comparison table gives useful data regarding this hypothesis. As shown in Table 4, there are statistically significant differences between groups of work experience with respect to PVOP. Therefore, there is relationship between work experience and PVOP. It can interpreted that the experienced employees are less concerned about violation of privacy because they have an enough experience on the effectiveness of electronic monitoring in the work place.

Table 4: Significant differences among work experience groups in their PVOP

(I) Work experience	(J) Work experience	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Less than 5 years	5 - 10 Years	-.14154-	.13447	.830	-.5122-	.2292
	10 - 15 Years	1.02743*	.11794	.000	.7023	1.3526
	15 - 25 Years	1.25846*	.20515	.000	.6929	1.8240
	More than 25 Years	1.09179*	.27859	.001	.3238	1.8598
5 - 10 Years	Less than 5 years	.14154	.13447	.830	-.2292-	.5122
	10 - 15 Years	1.16897*	.13738	.000	.7902	1.5477
	15 - 25 Years	1.40000*	.21691	.000	.8020	1.9980
	More than 25 Years	1.23333*	.28736	.000	.4411	2.0255
10 - 15 Years	Less than 5 years	-1.02743-*	.11794	.000	-1.3526-	-.7023-
	5 - 10 Years	-1.16897-*	.13738	.000	-1.5477-	-.7902-
	15 - 25 Years	.23103	.20707	.798	-.3398-	.8019
	More than 25 Years	.06437	.28001	.999	-.7076-	.8363

15 - 25 Years	Less than 5 years	-1.25846-*	.20515	.000	-1.8240-	-.6929-
	5 - 10 Years	-1.40000-*	.21691	.000	-1.9980-	-.8020-
	10 - 15 Years	-.23103-	.20707	.798	-.8019-	.3398
	More than 25 Years	-.16667-	.32647	.986	-1.0667-	.7333
More than 25 Years	Less than 5 years	-1.09179-*	.27859	.001	-1.8598-	-.3238-
	5 - 10 Years	-1.23333-*	.28736	.000	-2.0255-	-.4411-
	10 - 15 Years	-.06437-	.28001	.999	-.8363-	.7076
	15 - 25 Years	.16667	.32647	.986	-.7333-	1.0667

*. The mean difference is significant at the 0.05 level.

As illustrated in Table 5, Pearson correlation was run to determine the relationship between Perceived violation of privacy and the attitudes toward electronic monitoring. There was a strong, negative correlation between them, which was statistically significant *(r = - .758 , n = 178, p < .0005)*. Therefore, hypothesis 1 is accepted. Based on the result, the employees are concerned about the violation of electronic monitoring of their privacy.

Table 5: Perceived violation of privacy and employees' attitudes toward electronic monitoring.

		PVOP	EAEM
PVOP	Pearson Correlation	1	- .758-**
	Sig. (2-tailed)		.000
	N	178	178
**. Correlation is significant at the 0.01 level (2-tailed).			

HYPOTHESIS 2: Employees' attitudes toward electronic monitoring are influenced by their perceived ability to accomplish the required level of productivity.

As shown in Table 6, employees believed that applying electronic monitoring gives them more time, increase their quantity and quality of work. In addition, they believed that the job stress and complexity have negative effect on their productivity,

and they believed that the work environment have strong influence on their productivity.

Table 6: PLOP Items

Items	Mean	Std. Deviation
Applying electronic monitoring gives me more time to carry out my work as required.	4.1067	.89875
Applying electronic monitoring increases the quantity of my work.	4.1573	.88169
Applying electronic monitoring increase the quality of my work.	3.9607	.82587
If my loyalty decreases, I will be unwilling to do my work as required.	1.9663	1.23462
If I feel more stress on my job, my productivity decreases.	4.0787	.89221
Job complexity decreases my productivity.	4.1461	1.01459
The work environment strongly influences my productivity.	4.1910	.94930
PLOP	3.8010	.56417

As illustrated in Table 7, Pearson correlation was run to determine the relationship between Perceived level of productivity and the attitudes toward electronic monitoring. There was a strong, positive correlation between them, which was statistically significant *(r = .839 , n = 178, p < .0005)*. Therefore, hypothesis 2 is accepted.

Table 7: Perceived level of productivity and employees' attitudes toward electronic monitoring

		PLOP	EAEM
PLOP	Pearson Correlation	1	.839**
	Sig. (2-tailed)		.000
	N	178	178
**. Correlation is significant at the 0.01 level (2-tailed).			

HYPOTHESIS 3: Employees' attitudes toward electronic monitoring are influenced by their perceived rate of tardiness.

As shown in Table 8, employees agreed that because of applying electronic monitoring in the work place, their absence are decreased, they have to strictly comply with attendance times, and stay at their work place.

Table 8: PROT Items

Items	Mean	Std. Deviation
Because of applying electronic monitoring in the work place, I have to strictly compliance with attendance times.	4.3427	.82371
Applying electronic monitoring in the work place reduces the employees' absence.	4.0618	.71434
With applying electronic monitoring, I stay at my work place and not intend to leave it without permission.	4.1461	.81025
PROT	4.1835	.74664

As illustrated in Table 9, Pearson correlation was run to determine the relationship between Perceived rate of tardiness and the attitudes toward electronic monitoring. There was a strong, positive correlation between them, which was statistically significant *(r = .764 , n = 178, p < .0005)*. Therefore, hypothesis 3 is accepted.

Table 9: Perceived rate of tardiness and employees' attitudes toward electronic monitoring

		PROT	EAEM
PROT	Pearson Correlation	1	.764**
	Sig. (2-tailed)		.000
	N	178	178
**. Correlation is significant at the 0.01 level (2-tailed).			

HYPOTHESIS 4: Employees' attitudes toward electronic monitoring are influenced by their perceived fair evaluation of their performance.

As shown in Table 10, employees believed that the electronic monitoring data gives supervisors a complete picture of their performance. In addition, they believed that the data is fair to evaluate their performance, and they believed that the rewards and commissions are based on performance data resulted from electronic monitoring.

Table 10: PFEP Items

Items	Mean	Std. Deviation
Electronic monitoring data gives supervisors a complete picture of an employee's job performance.	4.1180	.92828
Electronic monitoring provides better performance feedback of employees.	3.9944	1.06563
The data extracted from electronic monitoring tools is a fair way to evaluate employees' job performance.	4.0618	.97517
The decision-making regarding job promotions, rewards and commissions based on performance data resulted from electronic monitoring.	3.8258	.97309
PFEP	4.0000	.94068

As illustrated in Table 11, Pearson correlation was run to determine the relationship between Perceived fair evaluation of performance and the attitudes toward electronic monitoring. There was a strong, positive correlation between them, which was statistically significant *($r = .802$, $n = 178$, $p < .0005$)*. Therefore, hypothesis 4 is accepted.

Table 11: Perceived fair evaluation of performance and employees' attitudes toward electronic monitoring

		PFEP	EAEM
PFEP	Pearson Correlation	1	.802**
	Sig. (2-tailed)		.000
	N	178	178
**. Correlation is significant at the 0.01 level (2-tailed).			

HYPOTHESIS 5: Employees' attitudes toward electronic monitoring are influenced by their perceived job satisfaction.

As shown in Table 12, employees thought that the loyalty had an effect on their satisfaction. In contrast, stress does not have any affect, while job complexity and work environment had a strong effect on their job satisfaction.

Table 12: PJS Items

Items	Mean	Std. Deviation
If my loyalty decreases, I will be dissatisfied in my job.	2.6067	.83182
If I feel more stress on my job, I will be dissatisfied in my job.	1.5674	.64524
Job complexity decreases my job satisfaction.	4.1461	.96317
The work environment strongly influences my job satisfaction.	4.3764	.71221
PJS	3.1742	.18755

As illustrated in Table 13, Pearson correlation was run to determine the relationship between Perceived job satisfaction and the attitudes toward electronic monitoring. There was a moderate, positive correlation between them, which was statistically significant *($r = .465$, $n = 178$, $p < .0005$)*. Therefore, hypothesis 5 is accepted.

Table 13: Perceived job satisfaction and employees' attitudes toward electronic monitoring

		PJS	EAEM
PJS	Pearson Correlation	1	.465**
	Sig. (2-tailed)		.000
	N	178	178
**. Correlation is significant at the 0.01 level (2-tailed).			

4.4 Regression analysis:

Multiple regression analysis was performed to evaluate the effect of the independent variables on the dependent variable. As shown in Table 14, the overall model of regression analysis showed a 71.8% for the adjusted R square, which means that the independent variables explain 71.8% of employees' attitudes toward electronic monitoring.

Table 14: Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.852[a]	.726	.718	.17428

a. Predictors: (Constant), PJS, PROT, PVOP, PFEP, PLOP

The ANOVA test (Table 15) shows that the independent variables significantly predict the dependent variable, (F (5.172) = 91.080, P < .0005).

Table 15: ANOVA test for all variables.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	13.832	5	2.766	91.080	.000[a]
	Residual	5.224	172	.030		
	Total	19.057	177			

a. Predictors: (Constant), PJS, PROT, PVOP, PFEP, PLOP b. Dependent Variable: EAEM

As shown in Table 16, all five independent variables significantly predict the Employees' attitudes toward electronic monitoring (p < .05). The general form of the equation to predict the employees' attitudes toward Electronic monitoring from their PVOP, PLOP, PROT, PFEP, PJS is

EAEM = 1.682 + (.015 x PVOP) + (.672 X PLOP) – (.246 X PROT) + (.106 X PFEP) – (.112 X PJS).

Table 16: Model coefficients.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.682	.499		3.368	.001
	PVOP	.015	.055	.039	.277	.012
	PLOP	.672	.108	1.155	6.215	.000
	PROT	-.246-	.073	-.559-	-3.358-	.001
	PFEP	.106	.056	.305	1.889	.021
	PJS	-.112-	.090	-.064-	-1.252-	.022

a. Dependent Variable: EAEM

Conclusions and recommendations

The purpose of the study was to empirically examine the employees' attitudes towards electronic monitoring. In summary, Perceived violation of privacy (PVOP), Perceived Level of Productivity (PLOP), Perceived Rate of Tardiness (PROT), Perceived Fair Evaluation of Performance (PFEP), and Perceived Job Satisfaction (PJS) showed significant relationships with the employees' attitudes toward electronic monitoring.

Perceived Violation of Privacy (PVOP) is negatively correlated with employees' attitudes toward electronic monitoring. Therefore, the organizations should take proper actions to eliminate this perception by increasing the awareness level among female employees who expressed more concerned of this issue specifically.

Perceived Level of Productivity (PLOP), Perceived Rate of Tardiness (PROT), Perceived Fair Evaluation of Performance (PFEP),

and Perceived Job Satisfaction (PJS) were positively correlated with attitudes toward electronic monitoring. This implies that when employees perceive electronic monitoring as something that is relevant to their level of productivity, rate of their tardiness, evaluation of their performance, and their job satisfaction, electronic monitoring will have positive attitudes among employees. Therefore, top management should make sure that the electronic monitoring activities are conducted for the intention of increasing the employees' productivity, reducing the rate of tardiness, leading to fair evaluation of performance, and increasing job satisfaction. The negative attitudes towards electronic monitoring could be effectively reduced if these four aspects are taken into consideration in electronic monitoring policy.

The study shows the majority of employees (91.6%) believed that the company should have clear policies showing them exactly what types of electronic monitoring systems used and the objectives behind applying these systems.

On the other hand, only 68.5% of employees had clearly understand the types of data collected by electronic monitoring systems, and 58.4% of employees had clearly understand the objectives behind applying electronic monitoring in the work place. Therefore, the company should take proper actions to increase the employees' knowledge of all aspects related to the nature of the systems used and the objectives behind them. Actions may include publishing formal documents declare in detail all policies regarding the types of electronic monitoring systems used and the objectives behind them. These documents should be available for all employees at all times in order to remove, or at least decrease all concerns about electronic monitoring and subsequently reflected positively among all employees and the company as well.

According to the full regression model, 71,8% of the variation in the employees' attitudes toward electronic monitoring was explained by the set of independent variables. Also, Perceived Level of Productivity (PLOP) seems the most variable influence these attitudes.

Therefore, organizational managements should primarily consider this aspect especially in electronic monitoring policy making and in building awareness among employees. It is important that a policy for electronic monitoring exists at the first place, and it should be communicated to all employees properly. This would effectively reduce the negative impacts of electronic monitoring associated with the productivity level of employees.

Recommendations for future research

Further research can focus on enhancing the proposed model. Utilizing samples from different geographical locations, age and gender may improve the model further. Also, various strategies of reducing the negative impacts of electronic monitoring in work place can be discussed further based on suggested variables.

References

- Alder et al (2008), Employee Reactions to Internet Monitoring: The Moderating Role of Ethical Orientation. Journal of Business Ethics. Vol 80, P 481 – 498.
- Al-Rjoub et al (2008), Electronic Monitoring: The Employees Point of view. Journal of Social Sciences. Vol 4,P 189-195.
- Ariss (2002), Computer monitoring; benefits and pitfalls facing management. Information & Management. Vol 39, P 553–558.
- Balyan, Vikramender Singh (2011), Analytical Study of Labour Productivity and its Impact on Banking Sector. Thesis PhD, Saurashtra University.
- Cowtan (2000), Electronic monitoring in the work place; tools for social control. Thesis PhD. University of Guelph.
- Effy Oz et al (2000), Electronic workplace monitoring; what employees think? Omega, the International journal of management science. Vol 27, P 167 – 177.

- Friedman and Reed (2007), Workplace Privacy: Employee Relations and Legal Implications of Monitoring Employee E-mail Use. Employ Respons Rights Journal. Vol 19 .
- Jeske (2011), Electronic performance monitoring; employee perceptions and reactions. Thesis PhD. Northern Illinois university. P 75–83.
- Lee et al (2003), Electronic surveillance in the workplace. Management Research News. Vol 26, P 72 – 81.
- Papini (2007), Big brother: The effect of electronic employee monitoring on electronic misbehavior, Job satisfaction, and organizational commitment. Thesis PhD, Alliant International University.
- Samaranayake and Gamage (2012), Employee perception towards electronic monitoring at work place and its impact on job satisfaction of software professionals in Sri Lanka. Telematics and Informatics journal. Vol 29, P 233 – 244.
- Scott & Mary Kiker (2008), A Quantitative Review of Organizational Outcomes Related to Electronic Performance Monitoring. The Business Review, Cambridge. Vol 11, P 295 – 301.
- Spitzmuller et al (2006), Examining employee compliance with organizational surveillance and monitoring. Journal of Occupational and Organizational Psychology. Vol 79, P 245 – 272.
- Workman (2009), A field study of corporate employee monitoring: Attitudes, absenteeism, and the moderating influences of procedural justice perceptions. Information and Organization journal. Vol 19, P 218–232.