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**EFFECTIVE TRAINING STRATEGIES TO INFLUENCE  
EMPLOYEES' ATTITUDES TOWARD USING AUTOMATION AT  
PUBLIC ADMINISTRATION WORKPLACE**

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**Abstract**

The main aim of the study is to expose the effectiveness of implementing four training strategies; motivate and instill confidence, develop skills, discourage an overconfidence and overuse, and maintain a high level of expertise, on employees' attitudes and performance in public administration organizations as they interact with automation at work. Attitudes of employees can be the main obstacle for organizations during the process of increasing automation adoption. Employees are still an indispensable and valuable resource that they can improve transparency as well as competitive advantages among other organizations by enhancing organizational loyalty by improving employee's satisfaction and attitudes toward daily work issues. The sample of this study includes 48 out of 60 participants ; managers, employees, and faculties, who work at the department of *Research and Development-Ministry of Higher Education and Scientific Research*, one of the highest public automated organizations, in Iraq. We have analyzed the collected data of this research through SPSS (version.24). The results show a firm correlation between applying influential training strategies and employees' reactions in response to increasing tasks technically automated. The conducted study shows that the four strategies can be used as a strategic guide for organizations that encounter aggressive attitudes of employees toward automation at the workplace and want to develop their ongoing transactions, public programs, and overall performance. Further study may need to include departments that provide different public services comparing to the selected organization like public transportation and

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organizations that have less automated work to expose other remarkable benefits of the four crucial training strategies.

**Keywords:** *Training strategies; automation; employees; motivation; attitudes.*

## إستراتيجيات التدريبية الفعالة للتأثير في مواقف الموظفين تجاه استعمال الأتمتة في مكان عمل قطاع الإدارة العامة

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### ملخص

الغرض الرئيس من هذا البحث هو الكشف عن فعالية تنفيذ أربع استراتيجيات تدريبية؛ تحفيز وغرس الثقة، وتطوير المهارات، وعدم تشجيع الثقة الزائدة والإفراط في الاستخدام، والحفاظ على مستوى عالٍ من الخبرة، وانعكاسه على مواقف الموظفين وأدائهم في مؤسسات الإدارة العامة أثناء تفاعلهم مع الأتمتة في مكان العمل. مواقف الموظفين السلبية تجاه تحويل العمل اليدوي إلى الإلكتروني قد تكون عقبة رئيسية للمنظمات الساعية إلى زيادة الاعتماد على الأتمتة في العمل. فالموظفون الذين يعدون مورداً قيماً لا غنى عنه، يمكنهم تحسين شفافية المنظمة والمزايا التنافسية من بين المنظمات الأخرى، وتعزيز الولاء التنظيمي من خلال تحسين رضا الموظفين والمواقف تجاه قضايا العمل اليومية. تضمنت عينة البحث 48 مشاركاً من مدرّاء وموظفين يعملون في دائرة البحث والتطوير التابعة لوزارة التعليم العالي والبحث العلمي في العراق، والتي تعد واحدة من أعلى المؤسسات العامة في العراق التي تعتمد في عملها على الانظمة ذات الإدارة الذاتية في أداء المهام والاعمال المناطة بها. إذ قمنا بتحليل البيانات التي تم جمعها من هذا البحث من خلال الإصدار 24 من برنامج SPSS. تظهر النتائج ارتباطاً وثيقاً بين تطبيق استراتيجيات التدريب الفعالة وردود فعل الموظفين الايجابية استجابة لزيادة أداء المهام بصورة ذاتية. إذ أظهر البحث ان بالإمكان استخدام الاستراتيجيات الأربع كدليل استراتيجي للمؤسسات التي تواجه مواقف رافضة من قبل الموظفين تجاه زيادة استخدام الأتمتة في مكان العمل وترغب في تطوير معاملاتها المستمرة وبرامجها العامة والأداء العام. ويمكن للدراسات المستقبلية في هذا المجال توسيع آفاق البحث ليشمل الإدارات التي تقدم خدمات عامة مختلفة مقارنة بالمنظمة المختارة مثل النقل العام والمنظمات التي لديها مهام قليلة تدار ذاتياً للكشف عن الفوائد المحتملة والمهمة الأخرى لاستراتيجيات التدريب الأربعة الفعالة.

**الكلمات المفتاحية:** الاستراتيجيات التدريبية، الأتمتة، الموظفين، الدافع، السلوكيات.

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## Introduction

Organizations in the current time begin to explore new fields and techniques to get advanced in applying automation at the workplace. The utilization of automation at work has changed the way that employees perform their daily tasks. In addition, employees who want to sustain a high level of performance have a better ideas enhance his current skills. Many organizations prefer to train their employees instead of losing a part of their workforce. In order to implement automation successfully at work, organizations should re-evaluate current employees' skills and training programs.

Training can be utilized as a tool to alleviate automation anxiety in the company by acquiring new skills or tasks process (Haddad, 1996:147). Majchrzak (1998); Blazey and Davision (1990) declared that adopting technology successfully depends on training as a contributive aspect (as cited in Haddad, 1996: 147). Wright et al. (1997: 20) notified that automation was the main reason behind increasing both physical demands and mental demands, and training requirements. They mentioned another point with regards to automation, "All of the employees had to go through between 12 and 20 hours of formal in-class training in addition to the amount of on-the-job training that they experienced in learning the new system" (Wright et al., 1997).

For instance, countries like South Korea, Germany, and Singapore which possess well-trained employees and strong education could perform more sustainability regarding automation. However, the countries mentioned above had to be well-prepared for the upcoming routes of automation with solid procedures (Kinder, 2018: 42). The performance of given tasks at work has become more complicated, since the increase in using automation. Employees start to be less effective and feel disappointed as their current skills do not fit with automative new skill requirements.

This paper will introduce four effective strategies that organizations can use as a guide tool to cope with problems regarding to increasing automation adoption at work. The focus of the authors will be particularly on attitudes because most employees have the fear of losing their jobs once the organization decides to implement new automation at work. Therefore, the authors attempt to explore the relationship between effective training strategies and employees' attitudes and interacts with those strategies positively or negatively as they try to adapt to new daily tasks automated.

## **Literature Review**

Wright et al. (1997: 22) underscored the importance of not paying significant attention to employees who run the automation system. They determined that organizations should pay enough attention to human aspect before applying the new technology and how that would affect the employees. Therefore, the cause of the automation will be worthwhile system. Condliffe (2018:2) stated that decision makers in organizations can apply strategies to deal with obstacles resulted from automation to alleviate passive influences. For instance, organizations retrain employees in order to be adapted with significant skills needed for future functions and to be given sufficient incomes to offset loss of jobs. Sirohey et al., signified that the intended outcomes cannot be achieved without setting convenient approach of training and including employees, management, and stakeholders in the process of automation execution (2012:3). For example, the Auditor General of Pakistan organization have achieved the intended outcomes by treating aspects of organizational weaknesses like training design and delivery which enhances employees' attitudes and performance (Sirohey et al., 2012:2) .

Moreover, scholars like McCormak and Johnson (2010) stated that employees who are supportive and carry positive attitudes in response to automation implementation are more likely to enhance their skills at work. Employees' attitudes toward new applied technologies in cooperating or resisting can be evaluated through their willing to either support the adoption of automation or not. Furthermore, employees may show some hesitation to accept automation implementation when it is applied either by force or will (Sirohey et al., 2012:2). Thus, applying solid training strategies that meet employees' needs will reflect a high level of training efficiency.

Regarding to training effectiveness as an indicator to evaluate the benefits of training programs in promoting employees' skills and capabilities, Center for Disease Control and Prevention (CDC) defined training effectiveness by "referring to how well your training supports learning and learning transfer" (2019: para.1) . It can be evaluated through pretest to assess trainees skills and knowledge, and posttest to ensure that trainees gain certain knowledge and skills at the end of training programs (2019: para. 3). Training effectiveness contains three components, trainees, training tools, and the organizational training courses (including trainers). These components impact the before, during, after training process. Therefore, "effectiveness could still be measured through the posttraining attitude and transfer measures" (Alvarez et al., 2004:387). Training effectiveness added essential contribution to improve overall employees and

organizational performance such as quality of services provided. (International Atomic Energy Agency (IAEA), 2003:1).

The connection between current research and public administration theories is to help public sector organizations to adopt automation at the workplace easily without resistance from employees. That can be achieved by improving self-management and setting of basic aims to help employees to maintain and develop their current skills and knowledge. The theoretical contribution of the research question is to set valid criteria to evaluate the success of overall performance by discovering the relationship between effective training strategies and employees' attitudes toward automation at the workplace .

Accordingly, the research study investigates the effectiveness of Barnett training strategies through exploring and evaluating the relationship between the independent variables, motivating and instilling confidence, developing skills, discouraging overconfidence and overuse, and maintain a high level of expertise, and dependent variable ,employees' attitudes, as the main role in promoting their satisfaction and willingness to accept new automation implementation though the following main and sub-hypotheses:

$H_0$ : There is no relationship between effective training strategies and employees' attitudes toward using automation at the workplace .

$H_1$ : There is a relationship between effective training strategies and employees' attitudes toward using automation at the workplace .

- $H_0$ : There is no relationship between motivating and instilling confidence and employees' attitudes toward using automation at the workplace .
- $H_1$ : There is a relationship between motivating and instilling at workplace confidence and employees' attitudes toward using automation at the workplace .
- $H_0$ : There is no relationship between developing skills and employees' attitudes toward using automation at the workplace .
- $H_1$ : There is a relationship between developing skills and employees' attitudes toward using automation at the workplace .
- $H_0$ : There is no relationship between discouragement overconfidence and overuse and employees' attitudes toward using automation at the workplace .

- $H_1$ : There is a relationship between discouragement overconfidence and overuse and employees' attitudes toward using automation at the workplace .
- $H_0$ : There is no relationship between maintaining a a high level of expertise and employees' attitudes toward using automation at the workplace .
- $H_1$ : There is a relationship between maintaining a a high level of expertise and employees' attitudes toward using automation at the workplace .

The study also addresses the following question to evaluate the relationship between Barnett training strategies and employees' attitudes:

What is the impact of effective training strategies on employees' attitudes toward using automation at the workplace ?

### Materials and Methodolgy

Figure (1) illustrates two main variables of the research study which clarify correlation and impact relations between effective training strategies (independent variable) and employees' attitudes (dependent variable).

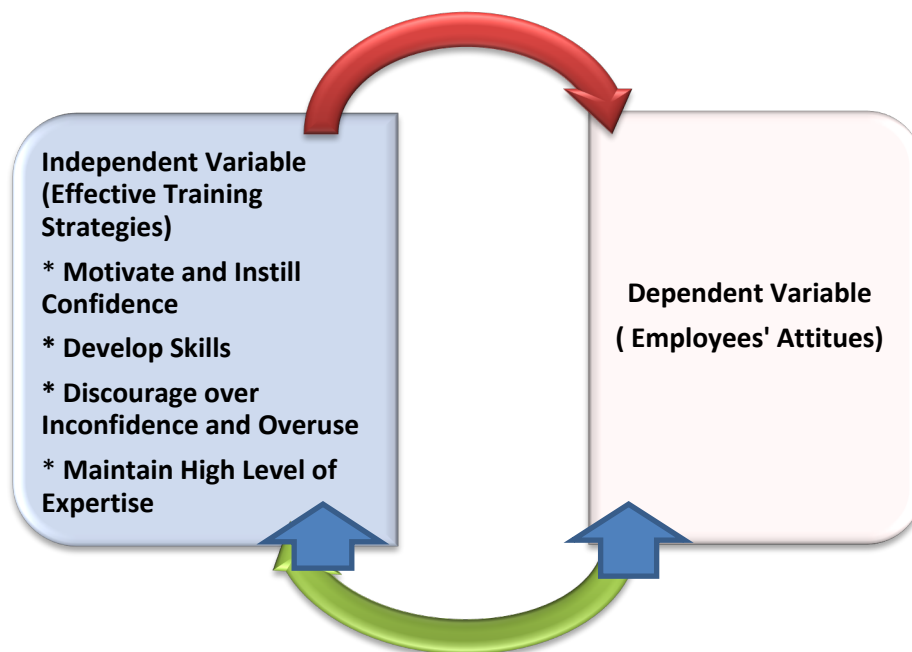


Figure (1) Correlation and impact relations between effective training strategies and employees' attitudes

Barnett (2003) said that it is necessary to show to the employees the benefits of utilizing automation at the workforce and it is not a time-consuming effort (as cited in Barnett, 2005:74).

The essential selected strategies to deal with obstacles that accompany confronts while applying automation programs at the workplace represent the following:

### **1. Motivate and Instill Confidence**

Hall (1971) pointed out that organizations can reach a high level of the motivation when their employees are constantly motivated in comparison with organizations with a low level of individual motivation (as cited in Khan et al., 2014: 192). Motivational level of employees has a significant impact on their performance (Khan et al., 2014: 192). Formal communication channels and union leaders contribute attempt of creating positive influences between employees and new technology (Haddad, 1996:147).

Sirohey et al. (2012) highlighted the passive attitudes of employees toward the adaptation of automation implementation can be altered gradually by increasing materiality incentives.

Barnett (2003) stated that employees can be motivated to utilize new technologies by showing them how automation could assist them. Management has to be pragmatic in exposing the reliability of automation by informing the employees that failures and defects will be handled once achieving the highest level of automated operation performance (Barnett, 2005: 74).

### **2. Develop Skills**

The second strategy of effective training is comprised of promoting employees' skills with familiar functions and presenting new automated tasks simultaneously (Barnett, 2005: 75). In order to put the strategy into action, jobs that are time-consuming and complicated ought to be at the prior procedure of automation training. This strategy of using automation should not concentrate training on the disadvantages of using automation by highlighting the advantages of utilizing it instead (Barnett, 2003). Barnett (2001) declared that training usually concentrates on instruction rather than employing automation inappropriate manner (as cited in Barnett, 2005: 75). Nedelkoska and Quintini (2018:6) stated that retraining is probably more sufficient when the skills content of decreasing and prospering jobs in the economy are hardly differentiated.

### **3. Discourage overconfidence and Overuse**

Barnett (2002) stated that management should present constraints of using automation by instructing the employees a how to handle prevalent defects and malfunctions. As a consequence of that notion, they will be more able to consolidate their confidence appropriately in organizations which the disparity of confidence exists (as cited in Barnett, 2005: 75).

#### **4. Maintain A high level of Expertise**

The main focus of training in this strategy is reinforcing employees' skills that are easily forgotten and irregular. Moreover, management can update new technology by continuous training and integrating instructions to employees who interact with automation (Barnett, 2005: 75).

Organizations can keep employees up-to-date by giving them the direct access to automation technology. For instance, many companies workers currently wear smart glasses which allow assembly-line workers to simultaneously access training manual immediately and work on the line (Porter and Heppelmann, 2017: 9).

Kinder illustrated that a high education level and solid organizational skills within technology and automation will be crucial to confront new functions as opposed to functions that will be lost on the account of not being created by technology and automation. For instance, the McKinsey Global Institute has predicted that a large number of employees (around 75 million to 375 million) will necessitate changing their current position in 2030. Consequently, employees who adapt to these upcoming circumstances have to gain new skills (2018:43).

#### **Research Methodology**

##### **Population and Sampling of the study**

48 employees and directors at the department of *Research and Development-Ministry of Higher Education and Scientific Research in Iraq* were selected. 48 percent were male, whereas 52 percent were female. The reason of choosing those particular groups is that the department of *Research and Development-Ministry of Higher Education and Scientific Research in Iraq* considers one of the highest automated departments in Iraq. Moreover, their continuous improvements to implement new automation require highly-trained employees with various skills. The reason for choosing this particular number ,(48 employees and directors that have filled out research questionnaire), is that the observed organization has only a specific department with limited numbers of trained employees. They are responsible for applying the automation standards of work procedures. The current study maintained its balance based on the distribution of duties and missions among the voluntary participants. Their education attainment were increased with 44 percent of Masters followed by graduate with percentage of 42. Undergraduate respondents reached 6 percent in comparison with 8 percent of PhD respondents. Employees and directors leveled the dynamic group of the (33-37) category with ratio of 39.6 percent. Following the (43 or over) category with 29.2 percent. In addition, the (38-42) percent marked 20.8 percent, but the



(28-32) category was reached 8.3 percent and (23-27) group regarded as the least category the percentage of 2.1 percent. See Table 1

**Table 1. Demographic analysis of a research study**

Category		Frequency	Percentage
Gender	Male	23	48
	Female	25	52
Education Attainment	Undergraduate	3	6
	Graduate	20	42
	Master	21	44
	Doctorate	4	8
Age group/ years	23-27	1	2.1
	28-32	4	8.3
	33-37	19	39.6
	38-42	10	20.8
	43 or over	14	29.2
Total		48	100%

Source: Calculated using SPSS frequency outputs

The homogeneously of responses among the educated group is indicated which shows that the power of work with production and products provided on the department can be stated by training strategies and its reflection to their labor status.

## Results and Discussions

As shown in Table 2, the value of Cronbach's Alpha of over all 29 questionnaire items resulted with 0.924. 18 items were the dependent variable of effective training strategies with 0.896 of the validity resolution factor. On the Contrary, the rest of the items were the independent variable resulted in 0.867. The dimensions of the dependent variable marked 0.724 of motivate and instill confidence, 0.833 of develop skills, 0.674 of discourage overconfidence and overuse, and 0.660 of maintain a high level of expertise.

Concerning Kaiser-Meyer-Olkin (KMO) and Bartlett's: measure of effective training strategies, the conformity measure is 0.823 estimated with 66.91 percent and 3.345 of variance experienced. In comparison with values, motivate and instill confidence marked 0.836 and develop

skills reached 0.873 plus 0.807 of discourage overconfidence and overuse and 0.796 of maintain a high level of expertise. Employee's attitudes attained 0.744.

**Table 2. Validity resolution of effective training strategies**

Dimensions	Cronbach's Alpha	Values	KMO	Total Variance Experienced
Motivate and instill Confidence	0.724	0.836	0.823	66.91
Develop skills	0.833	0.873	Barlett's Test	
Discourage overconfidence and overuse	0.674	0.807	112.981	Initial Eigen values
Maintain a high level of expertise	0.660	0.796	Sig/Df	3.345
Employee's attitudes	0.867	0.774	.000/10	
Validity Resolution	0.896	Survey		0.924

Source: calculated using SPSS outputs

Table 3 indicates that the descriptive effective training strategies resulted with 78 percent with an average of 3.89 percent and 0.546 of its Standard Deviation. The dependent variable of Employee's attitudes marked 74 percent (*M* 3.72) and 0.623 of its Standard Deviation. Regarding the independent variable, motivate and instill confidence ordered the leading status with an estimate of 79 percent and 0.557 of its standard deviation (*M* 3.97). Meanwhile, Develop Skills followed it with 79 percent and 0.721 of its standard deviation (*M* 3.96). As for the third status, maintain a high level of expertise reached with an average of 77 percent. Meaning that its standard deviation resulted 0.685 (*M* 3.85). Lastly, discourage overconfidence and overuse estimated with percentage of 75 percent and 0.637 of its standard deviation (*M* 3.96).

**Table 3. Descriptive statistics and correlation matrix**

Variable	Mean	St. D	X	Y	X1	X2	X3	X4
X	3.89	0.546	1	.658 (.000)	.858 (.000)	.869 (.000)	.828 (.000)	.809 (.000)
Y	3.72	0.623	.658 (.000)	1	.468 (.000)	.647 (.000)	.502 (.000)	.570 (.000)

X1	3.97	0.557	.858 (.000)	.468 (.000)	1	.712 (.000)	.629 (.000)	.591 (.000)
X2	3.96	0.721	.869 (.000)	.647 (.000)	.712 (.000)	1	.622 (.000)	.563 (.000)
X3	3.96	0.637	.828 (.000)	.502 (.000)	.629 (.000)	.622 (.000)	1	.545 (.000)
X4	3.85	0.685	.809 (.000)	.570 (.000)	.591 (.000)	.563 (.000)	.545 (.000)	1

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

Source: calculated using SPSS outputs

By reviewing data in Table 3, the independent variable of effective training strategies (X) outcome coefficient of positive correlation with 0.658 \*\* along with the dependent variable of employee's attitudes (Y) which indicates that its great interest functions majorly with employee's attitudes. On the other hand, the independent variable of developing skills (X2) increased with an estimation of 0.647 in parallel with the dependent variable of employee's attitudes. As for the coefficient correlation of the dependent variable, maintain the high level of expertise (X4) ordered the second status with 0.570\*\* followed by discourage overconfidence and overuse (X3) with an estimation of (0.502,  $p < 0.001$ ) along with the dependent variable. All of the previous strategies reached the level of significance 0.000. The last status of motivate and instill confidence (X1) ranked in parallel with employee's attitudes with an estimation of (0.468 ,  $p < 0.001$ ) and marked the degree of 0.001, (See Appendix (1) for more details about measurement of the independent and dependent variables). Meaning that the key initial hypothesis and its branches are respectively acceptable. See Figure (2).

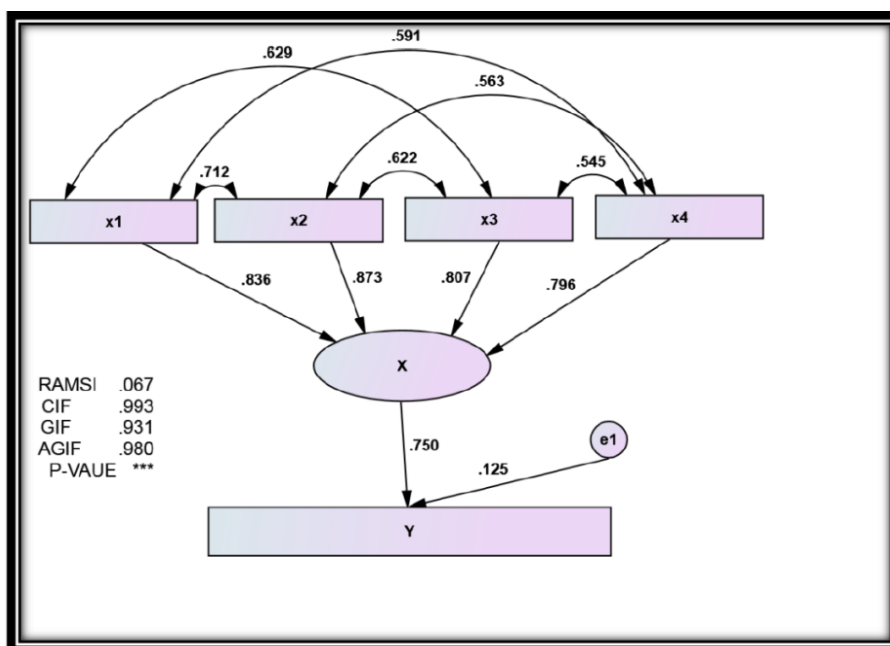


Figure 2. Analysis of affirmative factor and quality of conformity template

Table 4 specifies the impact value an independent variable of effective training strategies with an estimation of 0.750 of the employee's attitudes the dependent variable. By changing its consideration of effective training strategies with a single unit, employee's attitudes will occur with an average of 75 percent. Meanwhile, The highest impact value of develop skills of the independent variable reached 56 percent followed by motivate and instill confidence with an average of 52.4 percent. Regarding the value impact of maintain a high level of expertise estimated with 51.9% and 49.1 percent of the impact value of discourage overconfidence and overuse.

Table 4. Relations of impact

Independent Variable	Dependent Variable				
	Y				
	Estimate	S.E	C.R	P	F
X	.750	.125	5.991	***	35.134
X1	.524	.146	3.592	***	12.905
X2	.560	.097	5.762	***	33.206
X3	.491	.125	3.941	***	15.535
X4	.519	.110	4.711	***	22.195

Source: Calculated using SPSS outputs

As a result, the major hypothesis has demonstrated its coefficient rate. The F test values are calculated more than their estimated proportion with a percentage of 0.05 (3.841). As for the C.R. values, they reached the highest values with 1.97 percent. In addition to the adequacy of hypothetical branches.

As shown in Table 5, the most influential independent dimension in the research template is the independent variable of developing the employee's skills with an estimation of 44 percent with the degree of (0.001), whereas the dependent variable of maintaining a high level of expertise is estimated with 28.3 percent with the degree of (0.022) in comparison with the independent variable of motivate and instill confidence and the dependent variable of discouraging overconfidence and overuse resulted with free of impact value.

**Table 5. Sample of multiple impact of effective training strategies dimensions**

Aspect of Impact Relation			Estimate	S.E.	C.R.	P
Y	→	X1	-.164	.182	-.901	.368
Y	→	X2	.440	.137	3.210	.001
Y	→	X3	.106	.141	.749	.454
Y	→	X4	.283	.124	2.288	.022

Source: Calculated using SPSS outputs

The main concern of the research study was to underscore the influence of efficient training strategies on employees' attitudes regarding to automated tasks. Our results of the research study show a firm correlation between applying influential training strategies and employees' reactions in response to increasing tasks technically automated. When organizations pay more attention to effective training strategies, employees become enthusiastic to cooperate with work being automated. Furthermore, organizations that utilize training strategies appropriately encounter and keep up with unexpected future events. These results agree with (Porter and Heppelmann, 2017: 20). which has shown that organizations will be able to meet skills needed in the coming future at the same timeframe providing opportunities to employees to work skillfully.

Another observation of the study illuminates employees who promote their skills with regular daily tasks. They will have fewer passive attitudes toward automation at work through simplifying time-consuming and complex tasks plus providing instant access to automation

programs. The data obtained is mostly consistent with the study of Goler et al. (2018: 4), which emphasized that organizations that set very restricted function instructions narrow employees' ability to utilize their whole skills broadly.

Concerning motivation and instill confidence strategy, the findings point out its obvious impact on employees' attitudes. When organizations satisfy their employees with materialistic and non-materialistic incentives, their automated performance appraisal will improve increasingly. A study presented by Burchman and Jones that top and mid-level managers ought to utilize incentives to seize the crucial opportunities in association with Environmental, Social, and Governance (ESG) aims (2019: 1). Organizations that seek for automate employees' successful interaction need to create an engaging atmosphere permitting employees to discuss their favorite alternatives for their forward steps in their career. Moreover, they encourage employees to attain and perform a new job effectively and quickly (Porter and Heppelmann, 2017: 3). De Meuse et al. (2007), added that training strategies or courses that are applied in the field of public sector assist employees to get benefits from the skills and knowledge that have been gained by the training to develop their organizations dramatically (38).

The limitation of the study included, the *Research and Development* department, one of the highest automated departments in Iraq. Further studies are needed to embrace other departments that apply automation recently to explore the effectiveness of training strategy on the employees' reactions. Another point needs to be mentioned is that the selected department provides public services only. Yet, organizations that provide services and products simultaneously should be investigated in future studies. Future studies could build on the current research to make a benchmarking between some public and private organizations that applied Barnett training strategies. That would lead to distinguish the best organization in performing those training strategies with regards to reducing cost, and time-consuming in training employees to deal with new automated works as well as promoting the quality of services and products. Future studies may also compare the current effective training strategies within the same organization. That will expose the strengths and weaknesses of the organization departments in implementing those strategies and observing the altering of employees' attitudes among those departments.

## Conclusions and Recommendations

Employee's workplace has been altered by the innovation of automation. The automation era obliges many organizations to compete with each other by using rapid developmental technologies in order to get advanced in performing flexible automated tasks. That competition may face failure because of not having skilled employees to operate automated tasks. Likewise, organizations should know their strengths and weaknesses as they are planning to increase automation programs.

This paper has clearly shown the pathway for organizations to cope with automation problems and defects by addressing four effective training strategies- motivate and instill confidence, develop skills , discourage overconfidence and overuse, and maintain a high level of expertise. Those strategies can be used as a strategic guide for organizations that encounter aggressive attitudes of employees toward automation. The current research is the first to examine relationships between effective training strategies and attitudes of employees toward automation at the department of *Research and Development-Ministry of Higher Education and Scientific Research*.

Training maintains its significance by reducing the fearness of employees who feel that their current skills will be no longer valid in the innovative automation system. Employees gain new skills through participating in training courses. Their attitudes after acquiring skills needed to perform automated tasks enhance their level of confidence. Johnson (2018:4) resembled employees as "learning machines" for being unfamiliar of performing new tasks. They can handle that issue with the ability to learn how to do them, to master them, and to learn new skills. He added, " Instead of letting the engines of your employees sit idle, crank them: Learn, leap, and repeat."(Johnson, 2018: 4).

Moreover, the theoretical contribution of the research is providing a road map to deal with problems and undesirable behaviors when applying automation in the workplace of the public sector and evaluating the success of overall performance. In addition to that, the four training strategies adopted by the researchers in this study can be employed as basic criteria to recognize the main reasons behind employees' failure to adapt to automation programs, knowing their influences on employees' attitudes before, during, and after training. The research provides a group of guidelines, effective training strategies, to refine employees' skills and knowledge. Employees who are unwilling to alter their behaviors and attitudes will tolerate the current situation by taking into consideration their current skills and abilities weaknesses, enhancing their self-confidence, and encouraging them to gain required skills and knowledge. Furthermore, the research will allow

the development of existing theories of public administration by building a model of effective training strategies to make employees more receptive to changes in the work environment. On the other hand, they will enhance the proactive response of the organization to rapid developments by reducing the loss of more employees who feel unsuitable in terms of skills and capabilities with the applied automation programs and improving organizational reputation and satisfaction of beneficiaries through the quality of provided services and the speed in containing failures.

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