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#### **Abstract**

The purpose of this study is to assess the effect of E-training on the performance of employees in SMEs amid COVID-19. The article identifies how SMEs have carried out the training and development functions in the face of the COVID-19 pandemic. The study establishes a scientific base for e-training and employee performance and lays the foundation for empirical research in the area of e-training and development. The study adopted quantitative approach in achieving the objective of the study. With regards to data collection, the study conducted a survey to collect data from the employees of the various SMEs. Both descriptive and inferential analyses were carried out to achieve the research objective. The data was analysed descriptively and interpretation was done using frequencies. In addition to that, correlation and regression was also carried out to determine the nature of effect and relationship between E-training and performance of employees. The findings revealed that, there is a significant relationship between E-training infrastructure and E-training methods and performance of employees. The findings revealed some challenges employees encountered with the e-training. These includes: lack of awareness amongst SMEs, low adoption rate, bandwidth and connectivity limitations, computer illiteracy, lack of quality E-learning content, requires substantial investment not only at the development and implementation phase, but also the subsequent maintenance. The study concludes that when SMEs are able to increase the performance of their employees through training, they continue to remain competitive in the marketplace.

**Keywords:** E-training; performance; small and medium scale enterprises; COVID-19

**JEL Classification**: M00, M1, M53

### 1 Introduction

The recent emergence of the COVID-19 pandemic in the world has imposed a lot of challenges on businesses and has changed the way businesses are carried out which has led many organizations to migrate their business activities to online, therefore, it has become imperative for organizations to equip their employees with skills through virtual training in order to meet the growing demand and change that the COVID-19 has brought about in business operations. This will help keep employees productive and improve their performance amid the outbreak (Fachriansyah, 2020). The tight competition between companies in the era of the global economy adds to the challenges of always being at the forefront and being the best in providing satisfying services to consumers. The demand for corporate training has grown exponentially allowing employees to be provided with an emulated e-learning without attending the traditional brick and mortar training (Ramayah, Ahmad & Hong, 2012).

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Over a decade, businesses have regularly used technology to deliver training programs for their employees due to a bundle of benefits such as cost saving in travel expenditures and training time, flexibility and delivery of training, diverse content availability, standardized and constant course delivery, permanent use of resources within the company, enhancement of worker productivity, increase in the number of trained employees, ability to stay competitive, etc. (Burgess & Russell, 2003; Chen, 2009; Newton & Doonga, 2007; Schweizer, 2004; Womble, 2008). Organizations have sought the most appropriate ways to deliver training effectively to their employees in their workplaces. Superior outcomes were gained from etraining, especially if additional learning resources were provided and in case the training course included some hybrid elements (Hardman & Robertson, 2012). Due to globalization, many businesses started to rely upon E-training because of its potentiality to reach mass groups of people in different districts or countries, decreasing costs, and disseminating efficient information. For many individuals, E-training is perceived as the preferred learning channel due to its global accessibility and reach through a mouse click over the internet, E-training can occur anywhere (Ellis & Kuznia, 2014).

According to Taylor (2002), E-training is similar to e-learning in numerous ways especially in terms of the means of delivery and technology used. However, E-training refers explicitly to a shorter time than e- learning that is specifically designed to achieve a certain learning outcome or skill. Among the most common types of E-training are video conferencing and web-based training. This definition is in agreement with Mohsin & Sulaiman (2013) who stipulated that E-training is the use of technology by a trainer to deliver specific knowledge to an employee through a medium such as the internet or intranet. In the training literature, academics revealed that the key intent of E-training is to enhance job performance and the extent of satisfaction felt by the trainee, and to create a productive workforce. Business leaders usually embark on E-training for various reasons, such as the attempt to create a unique advantage and the need for globalization (Ellis & Kuznia, 2014).

According to Rephann (2020) the COVID-19 has resulted in complex and unpredicted consequences that ranges from financial institutions, tourism, and hospitality, industrial, manufacturing and transport, healthcare and pharmaceuticals, and local and international trade. So many business activities have been halted as a means to help curb the spread of the virus. In spite of that most organizations are now facing issues on how to train their employees and enhance their performance in the wake of the COVID-19 pandemic. Therefore, in this emergent time, businesses have been presented with no other option than to embark upon E-training programs in their organization. However due to the cost involved in establishment and running of E-training system, experts, researchers and stakeholders have raised question as to whether the running of E-training programs is worthwhile for organizations especially the SMEs. In view of that many studies have been conducted to assess the impact of E-training systems on employees' performance. Ramayah, Ahmad & Hong, 2012) conducted a study on the Assessment of E-training Effectiveness. Yet the study was only interested in determining the employees' behavioral intentions towards the E-training program but failed to assess the effect of the E-training on employees' performance. In addition, Hayashi, Chen, Ryan & Wu (2007) also investigated the factors contributing to continuance intention and user satisfaction in Etraining. They found out that information quality and system quality were important factors leading to increase in usage and user satisfaction of E-learning in workplace.

However, in the study, they failed to establish the relationship between the various dimensions of E-training (infrastructure and methods) and the employees' performance. Evidence from the literature shows that most previous studies such as (Okumu, Kiflemariam & Mang' Unyi, 2018; Wiradendi, Solikhah, Nadya & Deniar, 2020; Areiqat & Al-Doori, 2018) all failed to recognize the effect of the various dimension of E-training on employees'

performance. Hence, this study sought to evaluate the effect E-training dimensions which include E-training infrastructure and E-training methods have on performance of employees. Literature shows that studies on E-training are scarce specifically among SMEs in Ghana. This study is aimed at assessing the perception of employees on electronic training and the challenges they encountered during the E-training in the wake of COVID-19 pandemic. The study will be of immense benefit to other researchers who intend to know more about how COVID-19 has affected the human resource function of training and development in a developing country. Apart from contributing to knowledge it would also serve as a guide for small and medium enterprise and other organizations on how e-training could improve employees' performance and the organization itself.

## Research objectives, question/hypotheses

## Research objectives

The following are the objectives that were deduced for purposes of analysis:

- To assess the effect of E-training (infrastructure and methods) on employees' performance in SMEs.
- a. To examine employees' perception about E-training (infrastructure and methods).
- b. To examine the challenges or obstacles of E-training during COVID-19 pandemic encountered by SME employees.

## **Research Questions**

The researchers seek to be guided by the following research questions in conducting the study:

- a. What is the effect E-training (infrastructure and methods) on employees' performance in SMEs?
- b. What are the employees' perceptions about E-training (infrastructure and methods)?
- c. What are the challenges or obstacles facing electronic training during Covid-19?

## **Research Hypotheses**

The following hypotheses were formulated for testing in order to address the research objectives and questions:

**H1:** There is a significant effect of E-training (infrastructure and methods) on employees' performance in SMEs.

**H2:** There is a significant positive correlation of employees' perception about Etraining (infrastructure and methods).

#### Literature review

Studies have shown that there is no significant difference between employees who use a traditional lecture-based approach and those who study using E-training (Ho & Dzeng, 2010; Schoenfeld-Tacher, McConnell & Graham, 2001; Suanpang, Petocz, & Kalceff, 2004). Khan (2005) stated that an e-learning system is meaningful to learners when it is easily accessible, well designed, learner-centred, affordable, efficient, flexible and has a facilitated learning environment. Although the adoption of E-training is on the rise and its popularity and overall investment on it is huge, the extant literature provides little insight into their beneficial consequences (Chen, 2010) and known results from e-learning are still regarded as not quite living up to its expectations (Au, Sadiq & Li, 2009). Even some major concerns in its effectiveness and appropriateness have been revealed in various studies (Au et al., 2009).

A study by Bennett and McWhorter (2021) argued that with COVID-19 many of the changes to the workplace were already underway, but the pandemic has accelerated transformation. They said that for this reason, organizations must anticipate more digital transformation, strategize virtual human resource development, and leverage learning assets to prepare for the future. It has also been noticed by many researchers that effective running business processes are highly dependent on the performance of high-quality employees, who in turn are equipped through effective training (Bennett, 2014a, Agrawal, De Smet, Lacroix, Reich, 2020). Etraining is an effective input for the development of human resources, who are able to achieve goals in the organization in period of COVID-19 (Bennett and McWhorter, 2021). To maintain competitiveness and remain relevant with the emerging labour market infrastructure, firms need to take advantage of advanced online technologies to train employees faster and more effectively (Agrawal, De Smet, Lacroix, Reich, 2020). Companies need to pay attention to the factors of e-training to keep employees motivated and to maintain best possible employee performance, especially during the COVID-19 pandemic through working online (Bennett, 2014b).

Many of the E-training systems developed today were merely the automation of the process and management of teaching and delivering of courses with the advantages of eliminating the time and space barrier. The achievement of better training outcomes is still an area of study, although some researchers have recognized the issues and provided innovative solutions to some related problems (Au et al., 2009). An expectable e-training versus traditional classroom learning development has resulted in blended learning. A few of the SMEs were also concerned that the use of static and non-interactive e-learning may create a mindset that electronically encoded information is training. In other words, the concern is that senior managers worry about the ability to convey information. On the contrary, training is more than providing information; it requires practice, feedback, and guidance. E-training delivers content through electronic information and communications technologies. According to Ajayi (2008) the use of these facilities, involves various methods such as systematic feedback system, computer-based operation network, video conferencing and audio conferencing, internet worldwide websites and computer assisted instruction. This delivery method increases the possibilities for how, where and when employees can engage in lifelong learning. An increasing number of companies are adopting e-training, but in their rush to take advantage of E-training benefits and promises, they are finding that there are significant challenges to it.

Cone & Robinson (2001) underscore this point "Technology alone cannot produce outstanding performance. The same is true of technology used in the training and development profession". Simply put, it is not enough to establish technology-based learning. The authors of the above statement estimate that the transfer of skills gained from electronic-mediated options occurs at 30% or less. As E-training is currently widespread, academics who are not equipped technically to handle developments of materials and delivering online modules are hampering progress, and they require extensive skills development (Ellis & Kuznia, 2014). Nevertheless, not only are the technical skills an issue but content should be appropriately designed for distance training. It is not simply about "dumping large amounts of text onto a website" as this is inefficient (Leask, 2004). In order for academics to effectively make the transition to become online teachers they need to do more than just develop new ICT skills; it should be pedagogy based (Ellis & Kuznia, 2014). Other researchers went further and stated that training which is practical is not sufficient in an online training and learning environment. It should include academics correctly interpreting trainees' online written text, understanding the context, and understating group dynamics with individual needs. This will then make online learning more successful (Turvey, 2008; Loveless, 2011).

According to Igbaria, Guimaraes & Davis (1995) external factors such as organizational characteristics have significant effects on individuals' intentions to use technology system based on the presence or absence of the necessary skills, opportunities, and resources to use the system. Management support is considered to be one of the important aspects of the organization's training environment, as well as encouragement and resource allocation from top management and assistance for teacher development. Obviously, when managers show a constant emphasis on the importance of continuous learning, and associate certain rewards with their initiative, employees who actively participate in e-training will be satisfied, which will translate into greater training effects (Bataineh, 2017). Perhaps one of the reasons why an electronic learning program is not effective is that in electronic programs, personal responsibility decreases. Tanquist (2001) speculates that responsibility decreases for a number of reasons. First, learners must proactively budget their time and take the initiative in learning. Further, they must learn to use the required hardware and software, and acclimate themselves to the interface. If problems arise with the electronic format, the learner has to take the lead in overcoming technical problems. Finally, using technology in education presents a challenge for those who are not comfortable using technology.

Many SME trainees also raised concerns about the lack of interaction between trainees in many E-training programs. One senior staff stated that the lack of a peer-to-peer network makes E-training less attractive to their trainees and may be less useful. Although this staff recognized that peer interaction through network technology is not impossible, he acknowledges that it requires a lot of resources. Finally, Zenger & Uehlein (2001) present the argument that elearning is deficient in teaching employees the physical skills needed to perform a job. However, the use of simulation technology can solve this problem. The problem with using technical simulations to teach hard skills is that creating such simulations is difficult and expensive. Ramayah et al. (2012) conducted a study on the Assessment of E-training Effectiveness in Multinational Companies in Malaysia. By integrating Technology Acceptance Model (TAM), Delone and McLean information system success model and Expectation Confirmation Model (ECM), the study tested the causal pathway of the factors that could predict the effectiveness of e-training. Data from 163 employees in multinational companies (MNCs) with prior E-training experience was obtained via survey method. The result revealed that motivation to learn, management support and organization support were significant predictors of user satisfaction, however, self-efficacy, ease of use, and content of training were not significant.

Okumu et al. (2018) conducted a study to investigate the effects of employee training on employee performance. The study used descriptive research design. Both stratified sampling and simple random sampling were used in the study to select a sample of 210 employees. The data was analyzed using both descriptive statistics and inferential statistics to investigate the effect of employee training on employee performance at the Judiciary of Kenya. The study revealed that transfer of knowledge had a significant relationship with employee performance and was ranked as the first and most significant independent variable while instructional media has a significant relationship with employee performance and was ranked as the second highest significant variable in predicting employee performance. Wiradendi, Solikhah, Nadya & Deniar (2020) examined the effectiveness of e-training, e-leadership, work-life balance, and work motivation on millennial generation employees' performance in today's work life amid the outbreak of the COVID-19 pandemic that requires working more online. The number of samples collected was 200. The sampling technique used is the side probability method, with proportional random sampling technique. The results of this study show, first, that e-training, e-leadership, and work-life balance have positive effect on work motivation. Second, e-training, e-leadership, work-life balance, and work motivation have positive effect on employees'

performance. Areiqat & Al-Doori (2018) conducted a study on the role of Electronic Training in Employee Performance Development. The results showed that E-training is more likely to enhance the competencies of employees in terms of knowledge and skills, because such training provides up-to-date information to remain competitive in the marketplace. In addition, all respondents have agreed that E-training is more beneficial for them than traditional training and is less costly.

## 2 Methodology

According to Rosenthal (2016) the choice or appropriateness of a research approach depends on the ideas which emphasize the study, the nature of the study problem and the information gathering procedure. The study adopted quantitative research design because, it aimed at achieving the objective of the research by testing hypothesis. For that reason numerical data was required for analysis and interpretation of the study variables. However, some open-ended questions were asked in order to elicit responses on the challenges of e-training. Cross sectional studies were carried out at one-time point or over a short period of time which helps to estimate the prevalence of the outcome of interest for a given population. The population for this study were small and medium enterprises and the targeted population consist of all the working staffs of small and medium enterprises in Accra, the capital of Ghana. This region was selected because of its ethnic diversity and concentration of many Small and Medium Enterprises. The region is also the hardest hit by the COVID-19 pandemic and many businesses have had to change their operations to accommodate the fall-out from the pandemic. Statistics shows that there are around 25,000 registered firms in Ghana, and among these more than 80% of them are Small and Medium-Sized Enterprises and around 55% of them are located within the Greater Accra Region (Nexus Partnerships Limited, 2019). The accessible population was defined as all manufacturing and trading SMEs which had registered with National Board for Small-Scale Industries and Association of Ghana Industries (AGI) in the Greater Accra Region.

The study made use of the convenience sampling method in the selection of the SMEs to be included in the study. The study issued 380 questionnaires to employees of SMEs in the region. However, only 340 of the questionnaires were retrieved. The 340 response is equivalent to 89.47% of the total questionnaires issued. The response was considered appropriate since (Sekaran, 2008) argues that any response above 75% is classified appropriate for research study. In this study, questionnaire was used to collect primary data from respondents. Since the study was quantitative, the interest was in the collection of data that can be transformed into numerically. Questionnaires are doubtless one of the primary sources of obtaining data for research since it present simple and unambiguous questions for respondents to give their opinion. The first part of the questionnaire collected information on demographic characteristics of the respondent, while the second part consisted of questions where the variables of the study were focused and the challenges of e-training. Open ended questions aimed at obtaining data on the challenges facing e-training were also collected. The reliability of the survey was tested by Cronbach's alpha value for all the scales used in this research. The Cronbach's Alpha Coefficient values were calculated for variables in the questionnaire. The results are presented in a table below.

**Table 1** Reliability statistics

Scale	Cronbach's Alpha
Employees' perception	.899
E-training Infrastructure	.921

E-training Methods	.971

Sample Size (N) = 340

Source: Own Research

From the table, it is clear that employees' perception, E-training infrastructure and E-training methods had alpha values of .899, .921, and .971 respectively. These values are all above 0.7 and so the internal reliability of the variables has been achieved. Table 2 shows the demographic distribution of the respondents that were used in this study. The table presents all the relevant demographic variables from the 340 respondents.

**Table 2** Demographic information of respondents

Male       208       61.20         Female       132       38.80         Age:	Details	Frequency	Percentage (%)	
Female 132 38.80 Age:  8-24 years 40 11.80 25-34 years 84 24.70 35-44 years 126 37.10 45-54 years 76 22.30 45 years and Above 14 4.10 Highest Level of Education WASSCE/ SSSCE/ "O" Level 72 21.183 GCE "A" Level 8 2.354 HND/ Diploma 178 32.35 Degree 64 18.823 Masters / PhD 18 5.29 How long have you worked in this company? Less than 6 years 66 19.40 5-11 years 166 48.80 12-16 years 80 23.50 17-21 years 22 6.50	Gender:			
Age: 8-24 years 40 11.80 25-34 years 84 24.70 35-44 years 126 35-44 years 126 35-49 years 76 22.30 45-54 years 76 22.30 41 4.10 Highest Level of Education WASSCE/ SSSCE/ "O" Level 72 21.183 GCE "A" Level 8 2.354 HND/ Diploma 178 32.35 Degree 64 18.823 Masters / PhD 18 5.29 How long have you worked in this company? Less than 6 years 66 19.40 5-11 years 166 48.80 22-16 years 80 23.50 17-21 years 22 6.50	Male	208	61.20	
11.80   11.80   12.534   12.63   12.	Female	132	38.80	
25-34 years 84 24.70 25-34 years 126 25-34 years 126 25-54 years 76 22.30 25-54 years and Above 14 4.10 25-54 years and Above 72 21.183 26CE "A" Level 8 2.354 25-20 Plop 18 5.29 25-35 Plop 18 5.29 25-36 Plop 18 5.29 26-36 Plop 18 5.29 27-21 years 166 48.80 27-21 years 22 6.50	Age:			
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14   4.10	35-44 years 37.10	126		
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HND/ Diploma 52.35 Degree 64 18.823 Masters / PhD 18 5.29 How long have you worked in this company? Less than 6 years 66 19.40 6-11 years 166 48.80 62-16 years 80 23.50 67-21 years 22 6.50	WASSCE/ SSSCE/ "O" Level	72	21.183	
Degree 64 18.823 Masters / PhD 18 5.29 How long have you worked in this company? Less than 6 years 66 19.40 6-11 years 166 48.80 12-16 years 80 23.50 17-21 years 22 6.50	GCE "A" Level	8	2.354	
Masters / PhD 18 5.29 How long have you worked in this company?  Less than 6 years 66 19.40 6-11 years 166 48.80 12-16 years 80 23.50 17-21 years 22 6.50	HND/ Diploma 52.35	178		
How long have you worked in this company?  Less than 6 years 66 19.40 5-11 years 166 48.80 12-16 years 80 23.50 17-21 years 22 6.50	Degree	64	18.823	
Less than 6 years 66 19.40 5-11 years 166 48.80 12-16 years 80 23.50 17-21 years 22 6.50	Masters / PhD	18	5.29	
5-11 years 166 48.80 22-16 years 80 23.50 17-21 years 22 6.50	How long have you worked in this compa	any?		
22-16 years 80 23.50 17-21 years 22 6.50	Less than 6 years	66	19.40	
7-21 years 22 6.50	6-11 years	166	48.80	
	12-16 years	80	23.50	
22 years and above 6 1.80	17-21 years	22	6.50	
	22 years and above	6	1.80	

 $\overline{Sample\ Size\ (N) = 340}$ 

Source: Own Research

The following table shows the frequency distribution of the mode of training and learning in the electronic format.

Table 3 Mode of learning (MOL) of the respondents

Details	Frequency	Percentage (%)
Which electronic device do you use	to train during the COVID-19?	
Personal Computer	22	6.50
Laptop	204	60.00
Smart Phone	102	30.00
Tablet	12	3.50
Which online tool do you use during	COVID-19?	
Google meet	50	14.70
Zoom	216	63.50
Skype	36	10.60
Others	38	11.20
Which virtual training tool do you us	se during the COVID-19?	
YouTube videos	32	9.40
Online Training 64.70	220	
Companies' Platforms	88	25.90
During the COVID-19 the <b>E-trainin</b>	g program was often organized:	
Weekly 41.80	142	
Monthly	130	38.20
Quarterly	64	18.80
Semi-annually	4	1.20
How do you rate the online training	during the COVID-19 pandemic?	
Excellent	86	25.30
Very Good	124	36.50
Good 33.50	114	
Bad	16	4.70

Sample Size (N) = 340

Source: Own Research

### 3 Results

Analysing data requires the use of statistical measures to process raw data collected into meaningful information that can be easily understood. This study used the descriptive, correlation and regression statistical methods to analyse data. Descriptive statistic is used to describe the major characteristics of a data set. Descriptive statistics such as frequencies mean and standard deviation were used for interpretation. Regression analysis is a set of statistical processes used to <u>estimate</u> the relationships between the independent variable (Dimensions of e-training) and <u>dependent variable</u> (<u>employees' performance</u>). Model specification is determination of which independent variables should be included in the regression. According to our multi-linear regression model, employee performance is a function of E-training infrastructure and E-training methods.

 $EP = \beta 0 + \beta 1X1 + \beta 2X2 + \epsilon$ 

Where  $\beta$ 0,  $\beta$ 1,  $\beta$ 2 and  $\beta$ 3 are regression co-efficient

EP-Employees' performance

β0 - Intercepts of equation

β1 - Coefficients of variables

X1 – E-training Infrastructure

X2 – E-training Methods

This study sought to evaluate the effect of E-training on the performance of employees in the various SMEs. In view of that the significance of the various constructs used in the study was tested using correlation analysis. The p-value of the variables was compared with the critical value of 0.05 which signifies 95% degree of confidence. The regression coefficient table was used to test the significance of the individual specific variables (X1 and X2) on the dependent variable (EP) whiles the F-statistics in the analysis of variance table was used to test the overall significance of the independent variable on the dependent variable. The F. Statistic compares Sum of Squares due to Regression to Sum of Square due to Error. It enables a hypothesis test to be carried out on the significance of the regression model. The independent variables data was regressed against the dependent variable data and coefficients measures were used to test the strength of the relationship between the dependent and the independent variables.

## Effect of E-training (Infrastructure and Methods) on Employees' Performance

**H1:** There is a significant effect of E-training (infrastructure and methods) on employees' performance in SMEs.

The study sought to evaluate the effect of E-training on the performance of employees in the SMEs amidst COVID-19. The study made use of the various dimensions of e-training as constructs for measuring the effect of E-training on performance. In addition to that, the study also made use of the regression analytical tool to ascertain the effect of the independent variables on employee performance. The results are shown in table 4:

**Table 4** Regression analysis of e-training infrastructure and methods on performance

Model 1	Model 2
0.104	0.105
(1.227)	(1.227)
0.243*	0.244*
(2.262)	(2.247)
-0.140	-0.140
(-1.431)	(-1.418)
	-0.031
	(-0.398)
	0.007
	(-0.091)
0.047	0.036
0.064	0.001
3.766*	2.275*
	0.104 (1.227) 0.243* (2.262) -0.140 (-1.431) 0.047 0.064

Notes: \*\*\*significant at 0.1% (0.001); \*\*significant at 1% (0.01); \*significant at 5% (0.05).

Source: Own Research

The regression results in Model 2 of the Table 4 ( $\beta = -0.031$ , p < 0.001) indicated that Etraining infrastructure has a negative correlation but a significant effect on employees' performance. This means E-training infrastructure can improve upon employees' performance but it is not effective among SMEs. The regression results in Model 2 of the Table 4 ( $\beta = 0.007$ , p > 0.001) also indicated that E-training methods also have a positive beta and a significant effect on Employees' Performance. Therefore H1 is supported. This means e-training methods can improve upon Employees' Performance in the SMEs. With regards to the relationship between e-training infrastructure, methods and employee performance, the model summary table in the regression analysis showed that e-training infrastructure has a positive effect on Employees' Performance. It also indicated that, e-training methods have a positive effect on Employees' Performance. Information from the correlation table indicated that, there is a positive relationship between the variables. These results confirm previous studies which indicate that superior outcomes were gained from e-training, especially if additional learning infrastructure including some hybrid elements were provided (Hardman & Robertson, 2012). It is therefore evident that, E-training plays a major role in the performance of employees and therefore systems must be put in place to ensure its effectiveness in the various SMEs.

## Employees' perception about E-training (infrastructure and methods)

**H2:** There is a significant positive correlation of employees' perception about E-training (infrastructure and methods).

Table 5 below shows the correlation matrix indicating the linear relationship among the study variables. The results show that employees' perception has positive correlation and a significant relationship with E-training infrastructure (r = 0.254, p < 0.05) and E-training methods (r = 0.217, p < 0.05). On the other hand, E-training Infrastructure and E-training

Methods have a negative correlation but a significant relationship with Employees' Performance (r = -0.027, p < 0.05) and (r = 0.026, p < 0.05) respectively. Gender has a significant positive correlation with Employees' Performance (r = 0.187, p < 0.05) and a significant relationship with Perception (r = -0.061, p < 0.01). Age also has a positive correlation with Employees' Performance (r = 0.202) and a negative correlation with Perception (r = -0.011) Likewise, tenure has a positive correlation with Employees' Performance (r = 0.034) and Perception (r = 0.109).

**Table 5** Pearson's Correlations Matrix of the study's variables

	1	2	3	4	5	6	7
1. Performance	1						
2. Perception	048	1					
3. Infrastructure	027	.254**	1				
4. Methods	026	.217**	.268**	1			
5. Gender	.187*	061	.025	017	1		
6. Age	.202**	011	.033	064	.450**	1	
7. Tenure	.034	.109	.029	049	.193*	. 634**	1

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Source: Own Research

The model summary table in the regression analysis revealed that E-training infrastructure has a positive effect on Employees' performance. It also indicated that, E-training methods have a positive effect on employees' performance. Information from the correlation table indicates that, there is a positive relationship between the variables. Therefore H2 was supported. The findings of the study showed that the respondents expressed different perceptions about their participation in e-training programs that were held during the COVID-19 pandemic. Most of the participants agreed to statements such as "E-training was cost effective compared to the traditional training", "E-training helped us to think through difficult problems and respond more quickly to changes", "E-training revolutionized our corporate training", "E-training program sessions helped them to improve their work efficiency", "E-training had a high level of quality assistance as compared to the traditional training" among others.

## Challenges or obstacles of E-training during COVID-19 crisis encountered by SME employees

The third objective examined the challenges or obstacles of E-training during COVID-19 crisis encountered by SME employees. The study also sought to determine some of the various challenges or obstacles that are hindering the performance and smooth running of the E-training program in the various SMEs. From the survey, the challenges discovered include lack of awareness amongst SMEs of e-training as an option, low adoption rate, bandwidth and connectivity limitations, computer illiteracy, lack of learner engagement and motivation, lack of quality E-learning content, difficulty in engaging learners online and language barrier. These issues are the main threat to the success of E-training in the various SMEs. Literature has revealed that these threats can cause slow response to E-training programs which can create frustration and boredom among users and leads to low satisfaction (Almutairi & Subramanian, 2005).

<sup>\*.</sup> Correlation is significant at the 0.05 level (2-tailed).

#### **4 Conclusion**

The study concludes that, E-training infrastructure in the SMEs affects the performance of employees. It is important for SMEs to continue to invest in e-training infrastructure during the period of COVID-19 pandemic to increase the performance of their employees by providing them with the current ways doing business. This will make the SMEs to remain relevant and consequently improve their competitiveness in the marketplace. Therefore, the infrastructures designed by a team dedicated to developing the electronic content of the course and put in place during the training course activities will ensure the achievement of the required interactivity. Again, infrastructures such as virtual training halls at the various E-training institutes can simulate live or recorded lectures to the audience on E-training portal which will ensure performance of the E-training system. The study concluded that E-training methods affect the performance of employees. This signifies that the various methods used in E-training programs have a significant relationship with employee performance. Therefore, if trainers use interactive platform with trainees in the E-training institutions, it will enhance the E-training programs which will affect the performance of employees. In addition, methods such as the use of electronic coordinated approaches also enhance training and learning process. Furthermore, since all the dimensions of E-training have a significant effect on performance of employees, the researchers concluded that E-training in general has a positive significant effect on the performance of employees in the various SMEs. The following are the recommendations that can be adopted to attain the full benefits of e-training to enhance SME performance as competitiveness.

- Since E-training plays a significant role in enhancing employees' performance, the study recommends that the outlined challenges revealed by this study should be taken into consideration and resolved in order to improve the effectiveness and efficiency of the E-training system.
- The study recommends that E-training system requires substantial investment not only at the development and implementation phase, but also for subsequent maintenance. It is recommended to keep updated technology tools in the SMEs which will help employees to perform their work accurately, efficiently and effectively.
- The study again recommends the enhancement of information and communication technology. Again, the study recommends promoting information and communication technology culture by articulating and executing more frequent training programs specifically related to technology.
- In addition, the study recommends that delivering employees' training programs related to new software applications is necessary to improve individual employees' performance due its functional role in the learning process. Managers of the various SMEs should design training procedures and standards in order to advance the individual employee performance through more effective performance appraisal.
- Lastly, the study recommend that training should be conducted frequently to ensure that
  employees have the necessary engagement to change processes and innovation, better
  performance and job enthusiasm for enhanced employee and organizational
  performance.

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