A Research and Analysis on Influence of Information Technology on Small and Medium Enterprises

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ABSTRACT

The important aspect of Small and Medium Enterprises (SMEs) in economic development and poverty reduction cannot be overstated. The definition of SMEs is not standard. It has different meaning according to the scenario. Some authors differentiate them on the basis of capital assets on the other hand some define them on the basis on the skill and turnover. Small and medium entrepreneurs in India in business habit for longevity as they are domestic in their nature of movement but they need to counterfeit ahead only through worldwide unification even though the local institutional frame work and not rigid in encouraging the development of SMEs towards the world economy as those of other countries. Thus, the problem that is identified for this study is how the SMEs be developed to meet the challenges faced globally with the available infrastructure and utility. Information Technology is seen as the spine of the financial system. This could also be analysed as the aid of the economy therefore the success of an economy is entirely based on its financial system. A broad opening in technology has been experienced in the industries and they are currently taking advantage of the innovations to provide better improved customer and more efficient services that will enhances productivity (Akimuli,1999; Ovia,2005). This study will therefore find out the role or impact which the adoption of information technology on small and medium scale industries. It will provide a basis or proposed recommendations which can be re-adjust to the threats, opportunities, features technological competition and contingencies. The adoption of information technology in industries is also attributable owing to the fact that, it is also attributable, customer satisfaction, improve operational efficiency, reduce the running cost, and reduce transaction time. This work will be used as a case study for this research so as to realize its significant impact to guarantee their growth.

1.   INTRODUCTION

The Bolton Committee (1971) formulated "economic" and "statistical" definition of SMEs according to which a "SME is an independent firm, which has relatively small share of its market place, and managed by the owners themselves, or part owners personally, and not by the medium of formalized management structure". According to statistical definition "SMEs are characterized by the size, contribution to GDP, employment opportunities provided by these firms, exports and their contribution to the national economy".

There is no one way of defining SME, generally authors define on the basis of number of employees working in that organization. Southern and Tilley (2000) define "small to medium enterprises (SMEs) as organization that employ around 100 – 150 people and are not subsidiary of a public limited company". Taylor and Murphy (2004) and Martin and Matlay (2001) agreed on this and each SMEs shouldbe treated as an individual and they are different and should be treated as such.

In case of developed and developing countries the micro, small and medium scale organizations play a pivotal role in the growth of the country's economy. The SMEs contributes to about 80 – 90% of total business and account to 60 - 70% of India's employed labour force. Mostly they are referred as efficient and profuse job creators, the resource of big businesses and the spark of national economy. The SMEs have been identified as an important and promising sector for the creation of employment opportunities and primary aid of livelihood for the down trodden class. The significance of SMEs has been acknowledged all over the world.SMEs increase productivity growth in the economy.

The primary purpose of this study is to describe the role of SMEs in India, secondlyto examine the impact of ICT on SMEs in industries. This study specifically intendsto determine the primary role of information technology and to understand the general characteristics of SMEs that might contribute to the development. To analyse the different areas of SMEs where the use of ICT cab improves the productivity andefficiency. This work will also suggest to enhance the full potential of ICT.

The significance of this study can be highlighted as follows;

i.   To provide for small scale business stakeholders the need to propagate theirresourceful processes and practices towards global needs.

ii.   To incline individuals, agencies and government to create an enablingenvironment within which small scale businesses can grow.

iii.   To emphasize on the value of the business processes and practices that are globally oriented.

The study is based on the performance of small and medium enterprise through efficient and effective institutional practices. However, the location of the study is Bangalore, India where the activities of small and medium enterprises are mostly concentrated.

2.   RESEARCH METHODOLOGY:

2.1 GENERAL TECHNIQUES:

In order to explain the general technique, the chosen structure is known as "onion research" theory (Saunders et al., 2009). Figure 1shows the structure of the onion research.
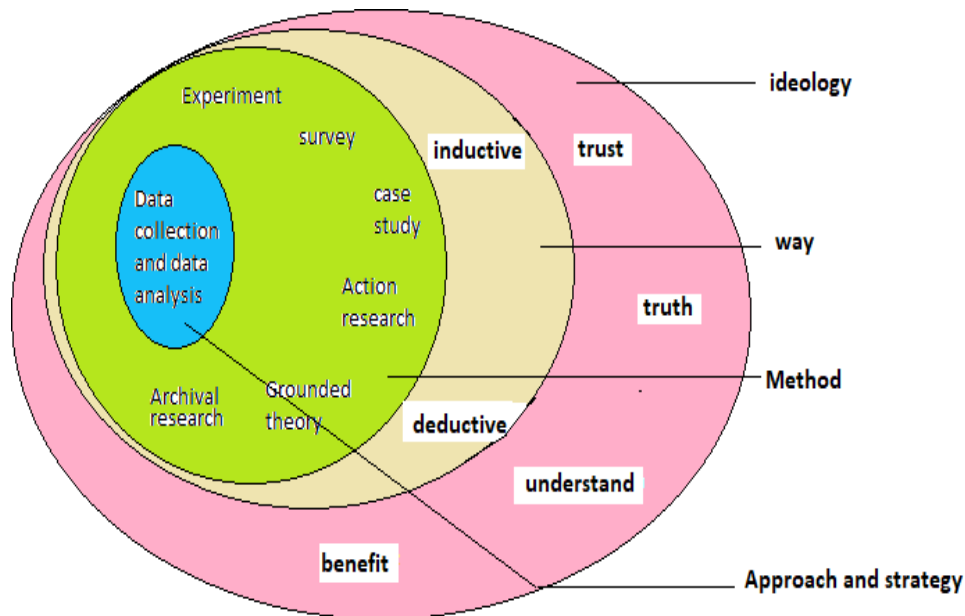
Figure 1. Levels of approach courtesy: (The nature of automation and the futureof jobs)

Through this inductive approach, proposals are made for the data collection, andthen later the data are analyzed to see that if any idea is emerging out to suggest the relation between the variables. Through this approach the analysis will lead towardsin detecting a decisive principle, by taking care not to plunge to a swift inferences based on the data collection. To validate the analysis the research should handle multiple cases than single case. This approach attempts to establish a decisive principles, firmness and meanings. Figure 2 shows the Work plan Courtesy Doing the research in the real world by David E. Gray.
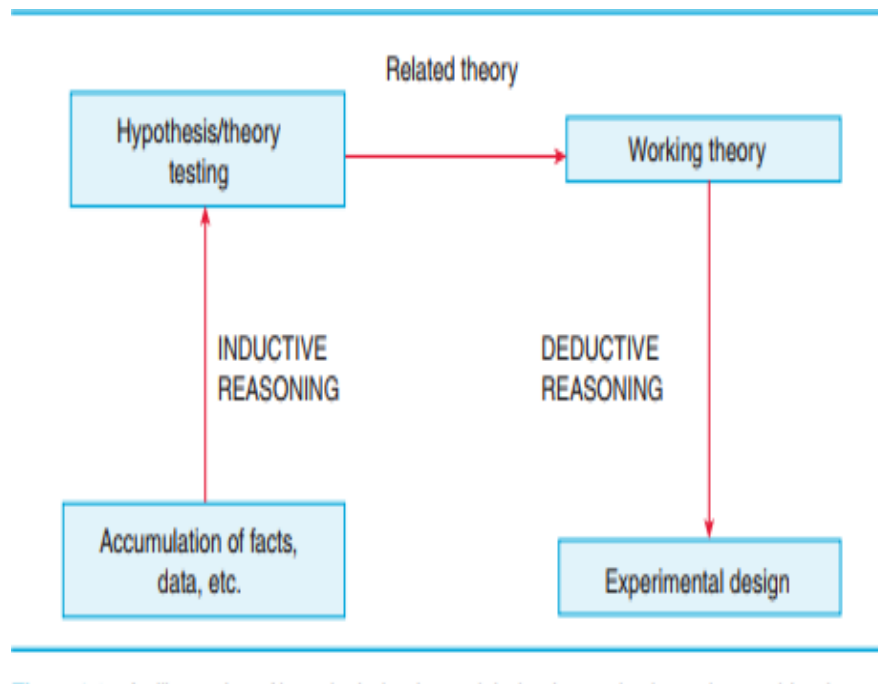
Figure 2. Work plan Courtesy Doing the research in the real world (David E.Gray)

2.2 Data Analysis

A pictorial statistic was observed to be an excellent analysis technique and later used in understanding the difficulties that SMEs faced. To support the values tabulation of data extracted from a close–ended questions surveyed, it was easier to understand the issues identified by the respondents. Also, to help answer the question whether or not SMEs have challenges in completing the objective, the below hypothesis was formulated and tested using test of proportion. To formulate the objective of the study, the following hypotheses were formulated.

Hypothesis 1:

H_0: The use of technology does not have a powerful effect on the operation of industries.

H_1: The use of technology has a significant effect on the operation of industries.**Hypothesis 2:**

H_0: Technology devices do not help factory workers effectively in the completion of their duties.

H_1: The use of technology device has a significant effect on the productive accomplishment of their duties.

Decision Rule:

If the computed p value is less than the level of the significance $\alpha = 0.05$ we rejectH0 otherwise H1 will be accepted $P^* = P(X \geq x/H0)$

2.3   POPULACE OF THE STUDY AND SAMPLING SIZE:

Populace attributes to the total number of employees in each department in the "focus of interest". The populace of the study has centered mostly on **Rajamane & Hegde Services Pvt Ltd, Bangalore.** This study is based on servicing of motors, response from the employees, training, etc. For analysis it is critical to have plentiful sample size to provide accurate solution (MacCallum et al., 1999). According to Tabachnick and Fidell (2013) the overall sample size should be around 100+. This study has more than the required level therefore, it is found that the sample size is sufficient and it is acceptable for the work. A total number of 100 questionnaire were issued to managers, supervisors and technicians of Rajamane & Hegde Services PvtLtd, Bangalore.

2.4   ANALYZATION OF TOPIC:

Analysing of the topic is to identify the variables involved in this questionnaire, ie.,the dependent and the independent variable. Therefore according to the software and the questionnaire the questionnaire are classified in to dependent and independent variable. The variables are termed as X and Y. Y is the dependent variable which has to do with the effect, while X is the independent variable that has do with cause, this can also be called as X is the cause variable while Y is the effect variable.

2.5   METHOD USED FOR COLLECTING THE DATA:

The sources of data for this study is based on primary sources. A primary source for this study is the base of this research study, and this will be generated by means of a well-structured questionnaire.

The questionnaire is classified in to three divisions, in the first part the personal data of the employee is collected, and the second part will concentrate on the work place and the technology impact on their work and third part concentrates on requirement of training regarding technology. The questionnaire to be used can be self-conducted and executed and a total number of 100 questionnaire was distributed among the employees. The sampling is done randomly as the questionnaire is distributed to various department and to various levels like servicing of motor department, spindle motor division etc and levels concentrated are managers, supervisors, technicians etc.

2.5.1   ACCESSORIES USED FOR DATA COLLECTION:

The study accessories used for this study is a questionnaire. This questionnaire was distributed to the employees personally by me and one to one mode was adopted for the processing and execution of the questionnaire. Even- though this questionnaire is done by me, the same was thoroughly reviewed and rectified by my guide and a well-structured questionnaire was designed appropriately for this study.

2.5.2   DESCRIPTION OF THE QUESTIONNAIRE:

The data assortment to be used shall be a methodical questionnaire and it would be overseen by the people. The questionnaire is split into two sections. The first section will be centred on questions on the personal information of the respondents while the second section shall be the core questions that relate to the subject matter based on the work. The questions were made so simple so that the employees can understand and answer to each question.

2.5.3   EFFECTIVENESS AND ACCURACY OF INSTRUMENTS:

Effectiveness refers to the degree with which a research instrument measures what it implies to measure as well as the populace it is planned for. It specifies to the truthfulness of the instrument and populace of study. It implies that it should measures all the aspects it is intended to measure. The validity test used in this research is content validity. Content validity is the "extent to which the instrument measures the overall appearance and subject mater in line with the set of objectives of the study". In carrying out this work, trained assessment was received from my project supervisor in evaluating the relevance of the items to the characteristics being measured.

The accuracy on the other hand is the degree of stability of the measure of variables or research instruments. A test is said to be reliable if it measures the same variable at different times to the same set of respondents and the result which are consistently similar. The test retest method involves measuring the reliability of the test twice to the same individual sample at different times. Thus, the two scores obtained from the test are gathered and correlated so as to determine the relationship that exist between the first test score and the retest score.
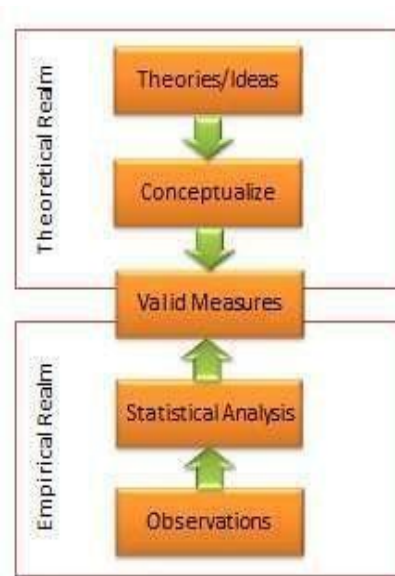
Fig 4: Two approaches of validity assessment

How be it in ensuring that the validity of the research instrument is established, the content and construct validity was implemented such that the statement and questions were hypothetical in nature so that it measures exactly what it intends to measure. The questionnaire item were placed on a scale of (SA) strongly agree, (A) agree, (N)neutral, (D) disagree, (SD) strongly disagree.

2.5.4   PHYSICAL GROUND WORK:

The questionnaires were carried out by the researcher in person. One to one approach was adopted by the researcher in distributing the questionnaires. This approach was adopted in order to supervise the data collection and to ensure that data supplied or answers are of superior quality. This work presented the data gathered via questionnaire by the usage of descriptive that comprises of tables, bar charts and pie charts for better understanding of the data. The method used to present the data in this work is by T test method, because more information can be collected on the basis of how information technology impacted on the services provided by small scale industries. The data collected were categorized into different categories of rows and columns, displaying facts and figures. For proper analysis however only he data in direct relation with hypothesis formulated were considered. SPPSS software was used in analysing the data collected. This package was used to aid the analysis of the collected data for the study. In other to analyse and interpret appropriately the responses form the respondent, the parametric and non-parametric tools were used. It shall be tested using the t-test statistical method and linear regression.

3. DATA COLLECTION

Out of 100 questionnaire 93 were returned from the respondents. This gives a response of 93%. This was a good result as a result of follow up. The other limitation is the time limit which hindered us from collecting more data on a large scale.

Rate of Response by Respondents

Questionnaire	Respondents	Valid Percentage (%)
Returned	93	93
Not returned	7	7
Total	**100**	**100**

Source: Survey (2020)

A total of 100 questionnaire were distributed and 93 of these questionnaires were returned, showing average return rate 93% questionnaires. The amount retrieved thus represent about 94% of total questionnaire administered, and is a reasonable level upon which research can be based and valid conclusion drawn from the analysis.

Gender of the Respondent

Gender	Frequency	Percent	Valid percent	Cumulative percent
Male	80	86.02	86.02	86.02
Female	13	13.98	13.98	**100.00**
Total	**93**	**100.00**	**100.00**	

Source: Field Survey (2020)

Table shows that 80 out of the total of 93 respondents were males represent approximately 86.02% of the entire sample size, while 13 were females, representing approximately 13.98% of the sample size. This indicates that more men are employed in industries compared to woman in small scale industries. From the below table it can be deduced that out of the 93 respondents 20 were between the age of 20 – 25 years representing 21.50%, 30 respondents were between the age of 26 – 30 years representing 32.26%, 15 respondents were between the age of 31 – 35 years representing 16.13%, 12 respondents were between the age of 36 – 40 years representing 12.90% , 10 respondents were between the age of 41 – 45 years representing 10.76%, 6 respondents were between the age of 46 – 50 years representing 6.45%. This result shows that the employees between 25 – 30 years are employed more in small scale industries. The least is in the category of 45 – 50 years with just 6.45%.

Age Group of Respondents

Age	Frequency	Percent	Valid Percent	Cumulative Percent
20 - 25	20	21.50	21.50	21.50
26 – 30	30	32.26	32.26	53.76
31 – 35	15	16.13	16.13	69.89
36 – 40	12	12.90	12.90	82.79
41 – 45	10	10.76	10.76	93.55
45 – 50	06	6.45	6.45	**100**
Total	**93**	**100**	**100**	

Source: Field Survey (2020)

Marital Status of the Respondent:

Status	Frequency	Percent	Valid Percent	Cumulative Percent
Single	45	48.39	48.39	48.39
Married	48	51.61	51.61	**100**
Total	**93**	**100**	**100**	

Source: Field Survey, (2020)

From the above table it is observed that 45 respondent are single representing 8.39% and 48 respondent are married representing 51.61% .

Educational Qualification of Respondents

Qualification	Frequency	Percent	Valid Percent	Cumulative percent
SSLC	15	16.13	16.13	16.13
Intermediate	13	13.98	13.98	30.11
ITI	15	16.13	16.13	46.24
Diploma	30	32.26	32.26	78.50
B.Tech	17	18.28	18.28	96.78
MBA	03	3.22	3.22	**100**
Total	**93**	**100**	**100**	

Source: Field Survey (2020)

The above table depicts that educational level of the respondents that has SSLC (10th) amounts to 15 respondents earning a total percentage 16.13% from the total sample, while a total of 13 respondents has intermediate certificate (PUC) with a total percentage of 13.98% from the total sample size. In addition to

the regular school certificate 15 respondents has completed their ITI which leads again to 16.13% of the total respondent population. Additionally, a total of 30 respondents has Diploma degree which posted the highest in terms of educational qualification earning a total percentage of 32.26%. while 17 respondents have bachelors of engineering degree amounting to 18.28% of the total size and 3 respondents has master degree in Masters of Business Administration representing 3.22%. This indicates that Diploma holders and ITI professionals are employed in small scale industries as they have hand on experience in operating machines.

Number of Employees in Various Departments

No of employees	Frequency	Percent	Valid percent	Cumulative percent
Less than 20 employees	29	31.18	31.18	31.18
Between 21 to 50 employees	45	48.39	48.39	79.57
Between 51 to 150 employees	19	20.43	20.43	100
Above 151 employees	0	0	0	**100**
Total no of Employees	**93**	**100**	**100**	

In a small enterprise in manufacturing the employee appointed in various department with full time employees less than 20 employees is 29 which accounts for 31.18%. While a total of 45 respondents is between 21 to 50 employees which gives 48.39%, while 19 respondents are in the category between 51 to 150 employees, whereas, 0 respondents are there above 151 employees. So, a total of 45 respondents are in the range between 21 to 50 employees. Therefore, the respondents for the questionnaire were small and medium sized manufacturing company.

4. HYPOTHESIS TESTING
4.1 Hypothesis 1

In testing **Hypothesis 1**. The one sample T test compares the mean score of a sample to a known value.

Null Hypothesis: The use of information technology, does not have a significant effect on the operation of industries.

Alternative Hypothesis: The use of information technology has a significant effect on the operation of industries.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
VAR00003	4	41.00	1.826	.913

One-Sample Test

	Test Value = 30					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
VAR00003	12.050	3	.001	11.000	8.09	13.91

Source: Field Survey (2020)Interpretation

The above question has a calculated value of (t-value) of 12.050 and a critical value of 2.000 at 5% level of significance.

Decision

From the above analysis, the calculated value is above the tabulated value, thereforethe null hypothesis (Ho) should be rejected in favor of the alternative hypothesis (H1) accepted. Also, the two-tail significance level which is 0.001is less than 0.05 which is level is significance; therefore, the null hypothesis should be rejected. Hence, the use of information technology and automation has a significant effect on the operation of small-scale industries.

4.2 Hypothesis 2

In testing **Hypothesis 2.** The one-sample T test compares the mean score of a sampleto a known value.

Null Hypothesis: Information technology or automation do not help employees on the strategy about the using of machines.

Alternative Hypothesis: Information technology or automation helped the employees on the strategy to use the machines.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
VAR00004	4	31.5000	5.91608	2.95804

Source: Field Survey (2020)

One-Sample Test

	Test Value = 0					
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
VAR00004	10.649	3	.002	31.50000	22.0862	40.9138

Interpretation:

The above question has a calculated value of 10.649 and a critical value of approximately 2.000 at 5% level of significance.

Decision:

From the above analysis, the calculated value is above the tabulated value, therefor the null hypothesis (Ho) should be rejected in favour of the alternative hypothesis (H1) accepted. Also, the two-tail significance level which is 0.002 which is less than 0.05 which is level of significance. Therefore, the null hypothesis should be rejected. Hence, information technology or automation has helped employees to make strategy to use of machines.

USING ANOVA

Hypothesis

Ho: The use of information technology or automation does not have a significant effect on the operation of industries

H1: The use of technology or automation has a significant effect on the operation of industries.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.844[a]	.712	.568	1.200

a. Predictors: (Constant), VAR00005

ANOVAᵃ

	Model	Sum of Squares	df	Mean Square	F	Sig.
	Regression	7.118	1	7.118	4.939	.156ᵇ
1	Residual	2.882	2	1.441		
	Total	10.000	3			

a.   Dependent Variable: VAR00003

b.   Predictors: (Constant), VAR00005

Interpretation Results:

The results from the model summary table above revealed that the extent to which he variance in operation of automation can be explained by the model is 71% i.e. (R square = .712). The ANOVA table shows the F calculated value to be 4.939 at a significance level. The implication is that the use of technology and automation has a significant effect on the operation of industries.

Coefficientsᵃ

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	38.735	1.183		32.751	.001
	VAR00005	.647	.291	.844	2.222	.156

a. Dependent Variable: VAR00003

The coefficient table above shows the simple model that expresses the extent to which information technology affects the operation of industries. The model is shown mathematically as follows: $Y = a+bx$ where Y is the operation of industries and x is the automation, 'a' is a constant factor and b is that value of coefficient. From this table therefore, COP = 38.735+0.647 Information technology. This means that for every 100% change in operation of industries. Automation is responsible for 64.7% of the change.

Decision:

The significance level is 0.001 is less than 0.05, thus we accept the alternative hypothesis and reject the null hypothesis. This implies that technology has a significant effect on the operation of the industries.

Hypothesis 2:

Ho: Information technology and automation do not help the employees effectively to plan the strategy to work on machines

H1: Information technology and automation does help the employees to effectively plan the strategy to work on machines

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849[a]	.720	.580	1.18322

a. Predictors: (Constant), VAR00002

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.200	1	7.200	5.143	.151[b]
	Residual	2.800	2	1.400		
	Total	10.000	3			

a.   Dependent Variable: VAR00003

b.   Predictors: (Constant), VAR00002

Interpretation of the Results:

The results from the model summary table above revealed that the extent to which the variance in performance on the employees to plan the strategy to work upon the machines. The is explained by the model that is 72% i.e. (R square = 0.720). The Anova table shows the F- calculated value to be 5.143. The implication is that automation device has helped the employees to effectively plan the strategy.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	44.000	1.449		30.363	.001
	VAR00002	-1.200	.529	-.849	-2.268	.151

a. Dependent Variable: VAR00003

The coefficient table above shows that sample model that expresses the extent to which information technology has helped employees to strategies the duties. The model is shown mathematically as follows: $Y = a + bx$, where Y is the performance of employees and x is the automation, 'a' is a constant factor and b is the value of the coefficient. From the table therefore, COP =44.000-1.200 automation. This means that for every 100% change in the plan to strategies information technology or automation is responsible for the change.

Decision:

The significance level is 0.001 and is less than 0.05, thus we accept the alternative hypothesis and reject the null hypothesis. This implies that information technology and automation has helped the employees to strategies effectively to perform better.

4.3 Hypothesis 3

In testing **Hypothesis 3**. The one sample T test compares the mean score of a sample to a known value.

Null Hypothesis: The Acceptance of technology does not have the influence on the characteristics of the employees.

Alternative Hypothesis: The Acceptance of technology does have the influence on the characteristics of the employees

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
VAR00002	24	12.50	7.071	1.443

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
VAR00002	8.660	23	.000	12.500	9.51	15.49

Source: Field Survey (2020) Interpretation

The above question has a calculated value of (t-value) of 8.650 and a critical value

of 2.000 at 5% level of significance.

Decision

From the above analysis, the calculated value is above the tabulated value, therefore the null hypothesis (Ho) should be rejected in favor of the alternative hypothesis (H1) accepted. Also, the two-tail significance level which is 0.000 is less than 0.05 which is level is significance; therefore, the null hypothesis should be rejected. Hence, the Acceptance of information technology and automation has a significant influence on the characteristics of the employees.

In testing Hypothesis 3. The one-sample T test compares the mean score of a sample to a known value.

Null Hypothesis: The Acceptance of technology does not have the influence on the characteristics of the employees.

Alternative Hypothesis: The Acceptance of technology does have the influence on the characteristics of the employees

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
VAR00003	24	43.17	11.944	2.438

One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Low er	Upper
VAR00003	17.705	23	.000	43.167	38.12	48.21

Source: Field Survey (2020)

Interpretation:

The above question has a calculated value of 17.705 and a critical value ofapproximately 2.000 at 5% level of significance.

Decision:

From the above analysis, the calculated value is above the tabulated value, therefor the null hypothesis (Ho) should be rejected in favour of the alternative hypothesis (H1) accepted. Also, the two-tail significance level which is 0.000 which is less than which is level of significance. Therefore, the null hypothesis should be rejected. Hence, the Acceptance of information technology and automation has a significant influence on the characteristics of the employees

USING ANOVA

Hypothesis

Ho: The Acceptance of technology does not have the influence on the characteristics of the employees

H1: The Acceptance of technology does have the influence on the characteristics of the employees

Variables Entered/Rem oved[a]

Model	VariablesEntered	Variables Removed	Method
1	VAR00003[b]	.	Enter

a. Dependent Variable: VAR00002

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.097[a]	.009	-.036	7.196

a. Predictors: (Constant), VAR00003

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.771	1	10.771	.208	.653[b]
	Residual	1139.229	22	51.783		
	Total	1150.000	23			

a.   Dependent Variable: VAR00002

b.   Predictors: (Constant), VAR00003

Interpretation of the Results:

The results from the model summary table above revealed that the extent to which the variance in performance on the employees which influence the characteristics. The is explained by the model that is 9% i.e. (R square = 0.009). The Anova table shows the F- calculated value to be 0.208. The implication is that acceptance of technology or automation has influenced the characteristics of the employees.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	10.027	5.618		1.785	.088
	VAR00003	.057	.126	.097	.456	.653

a.   Dependent Variable: VAR00002

The coefficient table above shows that sample model that expresses the extent to which information technology has influence the characteristics of the employees. The model is shown mathematically as follows: Y=a+bx, where Y is the performance of employees and x is the automation, 'a' is a constant factor and b is the value of the coefficient. From the table therefore, COP =10.027+0.057 automation. This means that there are 100% influence on the characteristics of the employees.

Decision:

The significance level is 0.001 and is less than 0.05, thus we accept the alternative hypothesis and reject the null hypothesis. This implies that acceptance of the automation influences the characteristics of the

employees.

Hypothesis

Ho: The Acceptance of technology does not have the influence on the characteristics of the employees

H1: The Acceptance of technology does have the influence on the characteristics of the employees

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.097[a]	.009	-.036	12.155

a. Predictors: (Constant), VAR00002

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	30.734	1	30.734	.208	.653[b]
	Residual	3250.599	22	147.755		
	Total	3281.333	23			

a.   Dependent Variable: VAR00003

b.   Predictors: (Constant), VAR00002

Interpretation of the Results:

The results from the model summary table above revealed that the extent to which the variance in performance on the employees which influence the characteristics. The is explained by the model that is 9% i.e. (R square = 0.009). The Anova table shows the F- calculated value to be 0.208. The implication is that acceptance of technology or automation has influenced the characteristics of the employees.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	41.123	5.122		8.029	.000
	VAR00002	.163	.358	.097	.456	.653

a. Dependent Variable: VAR00003

The coefficient table above shows that sample model that expresses the extent to which information technology has influence the characteristics of the employees. The model is shown mathematically as follows: Y=a+bx, where Y is the performance of employees and x is the automation, 'a' is a constant factor and b is the value of the coefficient. From the table therefore, COP = 41.123+.163 automation. This means that there are 100% influence on the characteristics of the employees.

Decision:

The significance level is 0.000 and is less than 0.05, thus we accept the alternative hypothesis and reject the null hypothesis. This implies that acceptance of the automation influences the characteristics of the employees.

4.4 Hypothesis 4

In testing **Hypothesis 4**. The one sample T test compares the mean score of a sampleto a known value.

Null Hypothesis: The ICT or automation does not have the influence on theperformance of the employees.

Alternative Hypothesis: The ICT or automation does have the influence on theperformance of the employees

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
VAR00009	8	51.8750	6.74934	2.38625

One-Sample Test

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Low er	Upper
VAR00009	21.739	7	.000	51.87500	46.2324	57.5176

Source: Field Survey (2020)

Interpretation

The above question has a calculated value of (t-value) of 21.739 and a critical valueof 2.000 at 5% level of significance.

Decision

From the above analysis, the calculated value is above the tabulated value, thereforethe null hypothesis (Ho) should be rejected in favor of the alternative hypothesis (H1) accepted. Also, the two-tail significance level which is 0.000 is less than 0.05 which is level is significance; therefore, the null hypothesis should be rejected. Hence, it is inferred that information technology and automation has a significant influence on performance of the employees.

In testing Hypothesis 4. The one-sample T test compares the mean score of a sampleto a known value.

Null Hypothesis: The ICT and automation does not have the influence on theperformance of the employees.

Alternative Hypothesis: The ICT and automation does have the influence on theperformance of the employees.

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
VAR00008	8	4.50	2.449	.866

One-Sample Test

	Test Value = 0					
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
VAR00008	5.196	7	.001	4.500	2.45	6.55

Source: Field Survey (2020)

Interpretation:

The above question has a calculated value of 5.196 and a critical value ofapproximately 2.000 at 5% level of significance.

Decision:

From the above analysis, the calculated value is above the tabulated value, therefor the null hypothesis (Ho) should be rejected in favour of the alternative hypothesis (H1) accepted. Also, the two-tail significance level which is 0.001 which is less than which is level of significance. Therefore, the null hypothesis should be rejected.Hence, the information technology and automation has a significant influence on theperformance of the employees

USING ANOVA

Hypothesis

Ho: The ICT and automation does not have the influence on the performance of theemployees.

H1: The ICT and automation does have the influence on the performance of the employees.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.662[a]	.438	.345	1.983

a. Predictors: (Constant), VAR00010

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	VAR00010[b]	.	Enter

a.   Dependent Variable: VAR00008

b.   All requested variables entered.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.405	1	18.405	4.680	.074[b]
	Residual	23.595	6	3.933		
	Total	42.000	7			

a.   Dependent Variable: VAR00008

b.   Predictors: (Constant), VAR00010

Interpretation of the Results:

The results from the model summary table above revealed that the extent to which the variance in performance on the employees which influence the characteristics. The is explained by the model that is 43% i.e. (R square = 0.438). The Anova tableshows the F- calculated value to be 4.680. The implication is that technology & automation has influenced the performance of the employees. The coefficient table above shows that sample model that expresses the extent to which information technology has influence the characteristics of the employees. The model is shown mathematically as follows: $Y=a+bx$, where Y is the performance of employees and x is the automation, 'a' is a constant factor and b is the value of the coefficient. From the table therefore, COP =15.644-2.15 automation. This means that there are 100% influence on the performance of the employees.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.644	6.241		2.507	.046
	VAR00009	-.215	.119	-.592	-1.799	.122

a. Dependent Variable: VAR00008

Decision:

The significance level is 0.046 and is less than 0.05, thus we accept the alternative hypothesis and reject the null hypothesis. This implies that technology automation influences the performance of the employees.

Hypothesis

Ho: The ICT and automation does not have the influence on the performance of the employees.

H1: The ICT and automation does have the influence on the performance of the employees

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.697[a]	.485	.399	1.46080

a. Predictors: (Constant), VAR00013

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.071	1	12.071	5.657	.055[b]
	Residual	12.804	6	2.134		
	Total	24.875	7			

a.   Dependent Variable: VAR00012

b.   Predictors: (Constant), VAR00013

Interpretation of the Results:

The results from the model summary table above revealed that the extent to which the variance in performance on the employees which influence the characteristics. The is explained by the model that is 49% i.e. (R square = 0.485). The Anova tableshows the F- calculated value to be 5.657. The implication is that technology or automation has influenced the performance of the employees.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	53.589	3.015		17.772	.000
	VAR00013	-1.714	1.818	-.359	-.943	.382

a. Dependent Variable: VAR00009

The coefficient table above shows that sample model that expresses the extent to which information technology has influence the characteristics of the employees. The model is shown mathematically as follows: Y=a+bx, where Y is the performance of employees and x is the automation, 'a' is a constant factor

and b is the value of the coefficient. From the table therefore, COP = 53.589-1.174 automation. This means that there are 100% influence on the performance of the employees.

Decision:

The significance level is 0.000 and is less than 0.05, thus we accept the alternative hypothesis and reject the null hypothesis. This implies that automation influences the performance of the employees.

5. RESEARCH & FINDINGS:

After thoroughly examining the questionnaire it is concluded that the information technology or automation has introduced a better life style to the employees in the industries. It has reduced the manual labour drastically making the working environment conducive for efficiency working and enhancing the productivity as perthe customer requirements.

5.1 Factual or Actual Findings:

The majority of the customers appreciate the efficient and instantaneous services from the industry, because all the operation is automated and they need not wait formanual labour. With the use of technology and automation it brought about ease and effective work performance from the employees. This in turn gives a positive response from the customers.

Even with the upgradation of technology still some employees are happy with the old way of working, this is listed in the table as past and present analysis. Even customers are ready for some jobs to be done manually for précised accuracy.

Lastly, from the hypothesis tested, it is concluded that:

i.   ICT and automation enhance the performance and operational efficiency

ii.   Automation has reduced the turn around time

iii.   Adoption of ICT and automation has made the employees to work smoothlyand effectively

iv.   Since automation has reduced the turnaround time the technology hasbrought about the profitability of the industry.

6. CONCLUSION:

The trends in working culture of the employees are changing dynamically with the introduction of technology in small scale industry. Presently, employees are more anxious about retention, work efficiency, productivity and cost cut off from the management point of view. Training helps the employees to get motivated and gets updated to work on current technology machines. The main purpose of training and employee's motivation is to improve the performance of employees. This motivation helps in boosting the organizations performance. Information technology and automation helped to reduce the turnover time and increase the productivity. This automation helps to satisfy the customer requirement as the customer is the paramount importance for any organization. This has given positive impact on the service delivery in the area of efficiency and the effectiveness of their operation

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