

THE INFLUENCE OF LEARNING ORGANIZATION TOWARDS THE
PERFORMANCE: A STUDY ON SMALL AND MEDIUM ENTERPRISE (SME)
OF MANUFACTURING FIRMS IN JOHOR BAHRU, JOHOR

By

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Othman Yeop Abdullah Graduate School of Business,
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in Fulfillment of the Requirement for the Master of Science (Management)

DECLARATION

I declare that the thesis work described in this research paper is my own work (unless otherwise acknowledged in the text) and that there is no previous work which has been previously submitted for any academic Master's program. All sources quoted have been acknowledged by reference.

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ABSTRACT

The purpose of this study is to investigate the influence of learning organization towards the performance of small medium-sized enterprises (SME). The study focuses on manufacturing firms in Johor Bahru, Johor. Specifically, this study is to examine the link between the dimensions occur in Systematic Learning Organization Model (SLOM) namely dynamic learning, organizational transformation, empowering people, knowledge management and technology application with the performance of SMEs manufacturing firms. The performance of SMEs firms includes overall performance of SMEs manufacturing firms and performance of SMEs firm relative to their major competitor. 102 respondents were involved in this study. The data was analyzed using '*Statistical Package for Social Science*' SPSS version 19. Collectively, the result shows that the learning organization is able to influence the performance of SMEs manufacturing firms in Johor Bahru. The Systematic Learning Organization Model (SLOM) is able to influence overall performance of SMEs manufacturing firms and performance of SMEs manufacturing firms relative to their major competitors. However, for individually, analysis using multiple regression analysis indicates that only one of SLOM dimension; dynamic learning is able to influence overall performance of SMEs manufacturing firms in Johor Bahru. The dimension of dynamic learning and technology application of SLOM demonstrates the significance influent on performance of SMEs manufacturing firm relative to their major competitors. Therefore, the owner or manager of SMEs manufacturing firm in Johor Bahru should focus on the dynamic learning and technology application in order to enhance the performance of their firms.

ABSTRAK

Tujuan kajian ini dijalankan adalah untuk mengkaji pengaruh pembelajaran organisasi terhadap prestasi Perusahaan Kecil dan Sederhana (PKS). Kajian ini akan memfokus kepada firma pembuatan di Johor Bahru, Johor. Secara khususnya, kajian ini juga dilaksanakan untuk mengkaji perkaitan antara dimensi di dalam Model Pembelajaran Organisasi yang Sistematis (SLOM) yang diwakili oleh dinamik pembelajaran, transformasi organisasi, memperkasakan manusia, pengurusan pengetahuan, adan penggunaan teknologi dengan prestasi firma pembuatan IKS. Prestasi firma pembuatan PKS termasuk keseluruhan prestasi dalam firma pembuatan PKS dan prestasi firma pembuatan PKS berbanding dengan pesaing utama. Sebanyak 102 responden terlibat dalam kajian ini. Data dalam kajian ini dianalisis dengan menggunakan '*Statistical Package for Social Science*' SPSS versi 19. Secara kolektif, keputusan kajian menunjukkan bahawa pembelajaran organisasi mampu mempengaruhi prestasi firma pembuatan PKS di Johor Bahru. Model Pembelajaran Organisasi yang Sistematis (SLOM) mempunyai pengaruh yang signifikan terhadap keseluruhan prestasi dalam firma pembuatan PKS dan prestasi firma pembuatan PKS berbanding dengan pesaing utama. Bagaimanapun, secara individu, analisis yang menggunakan regresi berbilang menyatakan bahawa hanya satu daripada dimensi di dalam SLOM iaitu dinamik pembelajaran yang mampu untuk mempengaruhi keseluruhan prestasi dalam firma pembuatan PKS. Dimensi dinamik pembelajaran dan penggunaan teknologi di dalam SLOM juga menunjukkan pengaruh yang signifikan terhadap prestasi firma pembuatan PKS berbanding dengan pesaing utama. Oleh itu, pemilik atau pengurus firma pembuatan IKS di Johor Bahru perlu memfokuskan terhadap dinamik pembelajaran dan penggunaan teknologi untuk meningkatkan prestasi firma mereka.

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LIST OF ABBREVIATIONS

Abbreviation		Meaning
ETP	=	Economic Transformation Programme
GDP	=	Gross Domestic Product
K-Eco	=	Knowledge-Based Economy
LO	=	Learning Organization
MARDI	=	Malaysian Agricultural Research and Development Institute
MATRADE	=	Malaysian External Trade Development Corporation
MITI	=	Ministry of International and Trade Industry
MLOA	=	Marquardt's Learning Organization Analysis
MPC	=	Malaysian Productivity Council
NEW	=	New Economic Model
P-Eco	=	Production-Based Economy
PKS	=	Perusahaan Kecil dan Sederhana
R&D	=	Research and Development
RBV	=	Resources-Based View
ROA	=	Return on Asset
ROE	=	Return on Equity
ROI	=	Return on Investment
SLDN	=	Sistem Latihan Dual Nasional
SLOM	=	Systematic Learning Organization Model
SME	=	Small Medium Enterprise
SME Corp.	=	Small Medium Enterprise Corporation
SME Bank	=	Small Medium Enterprise Bank
SMIDEC	=	Small Medium Industries Development Council
SPMS	=	Strategic Performance Measurement System

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Over recent decades, the parties involving employees, organization, and country are recommended to continue to work more vigorously to achieve success. The Era of globalization and rapid development in Malaysia in organizational learning system accompanied by the emergence of cluster users who increasingly intelligent, and knowledgeable, and has a wide stance has led to competition among organization became more intense and continuous. In this regard, a variety of methods and strategies needed to be done in order to continue in creating a learning organization management and the development of education process in order to increase competitiveness and business domination in the region. This is because the productivity can be increased by the effective and efficient management in the organization and it will assist the firm to attain its target due to the systematic management (Hassan and Hakim, 2005).

Basically, the organization is like humans where learning and knowledge in an organization is the key power for the organization in order to ensure the continuity of the firm legacy. Therefore, organizations need to be sensitive with the changes in the environment either external or internal. The organization should search for new findings when the rate of changes has been increased in order to survive in the environment

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only

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APPENDIX A



OTHMAN YEOP ABDULLAH (OYA) GRADUATE SCHOOL OF BUSINESS

UNIVERSITI UTARA MALAYSIA

QUESTIONNAIRE FORM

THE INFLUENCE OF LEARNING ORGANIZATION TOWARDS THE
PERFORMANCE: A STUDY ON SMALL MEDIUM ENTERPRISE (SME) OF
MANUFACTURING FIRMS IN JOHOR BAHRU, JOHOR



OYA GRADUATE SCHOOL OF BUSINESS
UNIVERSITI UTARA MALAYSIA

SURVEY
FOR ACADEMIC PURPOSE ONLY

Dear respected Owner / Manager,

**A SURVEY ON THE INFLUENCE OF LEARNING ORGANIZATION
TOWARDS THE PERFORMANCE OF SMALL AND MEDIUM-SIZED
ENTERPRISES (SME) IN JOHOR BAHRU, JOHOR.**

Recognizing that the future of SMEs in Malaysia relies heavily on the efforts of the SME owners such as yourself, we are eager to learn about your own experiences in managing your business. Particularly, we are looking for information and feedback about the influence of learning organization towards organizational performance of SMEs. We are convinced that your contribution serves as a guideline for realizing the positive efforts in producing more successful SMEs in Malaysia.

Therefore, you can display your commitment to develop SMEs in Malaysia by completing this survey. We are interested in your opinions, there are no right or wrong answers. All the information provided will be treated as confidential and will only be used for academic purposes of my dissertation (BPMZ69912). Your participation in completing the questionnaire is very important and critical to ensure the success of this research. Your honesty and sincerity is very important for my research in order to attain more clear understanding about research findings data analysis. This survey should take approximately 20 minutes to answer. It will be an honor if you could return the completed questionnaire before or by **4 April 2014**.

We would appreciate it if you could return the questionnaire at your earliest possible convenience. Thank you in advance for your cooperation. If you have any inquiry, you can contact me by **phone numbered 014-9049832** or e-mail me at **saifulhafizi89@ymail.com**.

Yours faithfully,

SAIFULHAFIZI BIN HASSAN
Master of Science (Management)
OYA Graduate School of Business
UUM

SECTION A

The following questions ask for information concerning yourself and your company background. Please answer each question by ticking the appropriate box and fill-up the required information.

Please tick (/) in the appropriate box.

1. Gender ☐ Male ☐ Female
2. Age ☐ Below 30 ☐ 31- 40 ☐ 41-50
☐ 51-60 ☐ 61 and above
3. Race ☐ Malay ☐ Chinese ☐ Indian
☐ Others, please specify: _____
4. What is the highest level of education you have completed?
☐ PhD ☐ Master ☐ Degree
☐ Diploma ☐ Secondary school ☐ Primary
☐ Other, please specify: _____
5. What is your position at this company?
☐ Business owner ☐ Senior manager
☐ Business partner ☐ Human resource manager
☐ General manager ☐ Other, please specify: _____
6. How many years have you been working with the company?
☐ Less than 5 years ☐ 16 – 20 years
☐ 5 - 10 years ☐ More than 20 years
☐ 11 – 15 years
7. How long has your company been established?
☐ Less than 5 years ☐ 16 – 20 years
☐ 5 - 10 years ☐ More than 20 years
☐ 11 – 15 years

8. How many employees does your company hire?

- ☐ Less than 5 employees ☐ 50 – 150 employees
☐ 5 - 49 employees ☐ More than 150 employees

9. Type of ownership:

- ☐ Local company-Bumiputera
☐ Local company-non-Bumiputera
☐ Foreign company
☐ Joint local-foreign company

10. Please select the type of industry which most closely represents your company's industry group. **(You may tick more than one answer)**

<input type="checkbox"/>	Automotive & Component Parts
<input type="checkbox"/>	Building Materials & Related Products
<input type="checkbox"/>	Cement, Concrete Products, Ceramics & Tiles
<input type="checkbox"/>	Chemicals, Chemical & Plastic Products
<input type="checkbox"/>	Electrical & Electronics Products
<input type="checkbox"/>	Food, Beverages and Tobacco
<input type="checkbox"/>	Furniture & Wood Related Products
<input type="checkbox"/>	Household Appliances
<input type="checkbox"/>	Industrial & Engineering Products
<input type="checkbox"/>	Iron & Steel Products
<input type="checkbox"/>	Laboratory Equipment
<input type="checkbox"/>	Packaging, Labeling & Printing
<input type="checkbox"/>	Pharmaceutical, Medical Equipment, Cosmetics, Toiletries & Household
<input type="checkbox"/>	Rubber Products
<input type="checkbox"/>	Stationary

<input type="checkbox"/>	Textiles & Wearing Apparel
<input type="checkbox"/>	Other, please specify: _____

SECTION B

With reference to the performance of your company **over the past 12 months**,

- a) Please indicate **the degree to which you are satisfied with your company's performance over the past 12 months** by *circling* the number of your choice:

Performance criteria		Degree of satisfaction with business performance				
		Very dissatisfied			Very satisfied	
1	Profitability	1	2	3	4	5
2	Sales turnover	1	2	3	4	5
3	Sales growth	1	2	3	4	5
4	Return on investment	1	2	3	4	5
5	Market share	1	2	3	4	5
6	Customer satisfaction	1	2	3	4	5
7	Customer retention	1	2	3	4	5
8	Business image	1	2	3	4	5
9	Workplace industrial relation	1	2	3	4	5
10	Work and life balance	1	2	3	4	5

- b) Please indicate your **company's performance relative to that of your major competitors over the past 12 months** according to each of the following criteria by *circling* the number of your choice:

		Significantly lower	Moderately lower	About the same	Moderately higher	Significantly higher
11	Return on sales	1	2	3	4	5
12	Cash flow	1	2	3	4	5
13	Net profit	1	2	3	4	5
14	Market share	1	2	3	4	5
15	Return on investment	1	2	3	4	5

SECTION C

The following statements describe the possible **view or opinion that the owners/managers might have about the Learning Organization that is applied by the organization**. Please indicate your views on the following statements by circling the scale for each statement and make sure it describes yourself and your organization.

Strongly Disagree				Strongly Agree	
1	2	3	4	5	

	A. Learning Dynamic	Scale				
1	We see continuous learning by all employees as a high business priority.	1	2	3	4	5
2	We are encouraged and expected to manage our learning and development.	1	2	3	4	5
3	People avoid distortion of information and blocking of communication channels through skills such as active listening and effective feedback learning approaches.	1	2	3	4	5
4	Individuals are coached and trained in how to learn.	1	2	3	4	5
5	We use a range of methodologies e.g. on the job, formal courses etc. as means of improving our job skills.	1	2	3	4	5
6	People expand knowledge through adaptive, anticipatory, and creative.	1	2	3	4	5
7	Teams and individuals use the action-learning process (i.e. learning from careful reflection on the problem or situation, and applying it to future actions).	1	2	3	4	5
8	Teams are encouraged to learn from one another and to share learning in a variety of ways (e.g. via electronic bulletin boards, printed newsletters, intergroup meeting etc.).	1	2	3	4	5
9	People are able to think and act with a comprehensive systems approach (i.e. we look at impacts of our decisions on areas outside their immediate area or function).	1	2	3	4	5
10	Teams receive training in how to work and learn in groups.	1	2	3	4	5
	B. Organizational Transformation					
11	The importance of being a learning organization is understood throughout the organization.	1	2	3	4	5
12	Top-level management supports the vision of a learning organization.	1	2	3	4	5

13	There is a climate that supports and recognizes the importance of learning.	1	2	3	4	5
14	We are committed to continuous learning for improvement.	1	2	3	4	5
15	We learn from our failures as well as our successes (i.e. failures are tolerated as part of the learning process).	1	2	3	4	5
16	We reward people and teams for learning and helping others to learn.	1	2	3	4	5
17	Learning opportunities are incorporated into operations and programs.	1	2	3	4	5
18	We design ways to share knowledge and enhance learning throughout the organization (e.g. systematic job rotation across teams, structured on-the-job learning systems).	1	2	3	4	5
19	The organization is streamlined, with few levels of management, to maximize communication and learning across levels.	1	2	3	4	5
20	We coordinate on the basis of goals and learning rather than maintaining separation in terms of fixed departmental boundaries.	1	2	3	4	5
	C. Empowering People					
21	We strive to develop an empowered work force that is able and committed to qualitative learning and performance.	1	2	3	4	5
22	Authority is decentralized and delegated so as to equal one's responsibility and learning capability.	1	2	3	4	5
23	Top management and staffs work together in partnership, to learn and solve problem together.	1	2	3	4	5
24	We take on the roles of coaching, mentoring, and facilitating learning.	1	2	3	4	5
25	We generate and enhance learning opportunities as well as encourage experimentation and reflection on what was learned so that new knowledge can be used.	1	2	3	4	5
26	We actively share information with our customers, to obtain their ideas and inputs in order to learn and improve services/products.	1	2	3	4	5
27	We give customers and suppliers opportunities to participate in learning and training activities.	1	2	3	4	5
28	Learning from partners/subcontractors, teammates, and suppliers is maximized through up-front planning of resources and strategies devoted to knowledge and skill acquisition.	1	2	3	4	5
29	We participate in joint learning events with suppliers, community groups, professional associations, and academic institutions	1	2	3	4	5
30	We actively seek learning partners amongst customers, vendors and suppliers.	1	2	3	4	5

	D. Knowledge Management (KM)					
31	People actively seek information that improves the work of the organization.	1	2	3	4	5
32	We have accessible systems for collecting internal and external information.	1	2	3	4	5
33	People monitor trends outside the organization by looking at what others do (e.g. benchmarking, best practices, attending conferences, and examining published research).	1	2	3	4	5
34	People are trained in the skills of creative thinking and experimentation.	1	2	3	4	5
35	We often create demonstration projects where new ways of developing a products and/or delivering a service are tested.	1	2	3	4	5
36	Systems and structures exist to ensure that important knowledge is coded, stored, and made available to those who need and can use it.	1	2	3	4	5
37	People are aware of the need to retain important organizational learning and share such knowledge with others.	1	2	3	4	5
38	Cross-functional teams are used to transfer important learning across groups, departments and divisions.	1	2	3	4	5
39	We continue to develop new strategies and mechanisms for sharing learning throughout the organization.	1	2	3	4	5
40	We support specific areas, units, and projects that generate knowledge by providing people with learning opportunities.	1	2	3	4	5
	E. Technology Application					
41	Learning is facilitated by effective and efficient computer-based information systems.	1	2	3	4	5
42	People have ready access to information highway (e.g. local area networks, internet, on-line etc.).	1	2	3	4	5
43	Learning facilities (e.g. training and conference rooms) incorporate electronic multimedia support and a learning environment based on the integration of art, colours, music and visuals.	1	2	3	4	5
44	People have available to them, computer-assisted learning programs and electronic job aids (e.g. just-in-time and flowcharting software).	1	2	3	4	5
45	We use groupware technology to manage group processes (e.g. project management, team process, meeting management).	1	2	3	4	5
46	We support just-in-time learning, a system that integrates high technology learning systems, coaching, and actual work on the job into a single, seamless process.	1	2	3	4	5

47	Our electronic performance support systems enable us to learn and to do our work better.	1	2	3	4	5
48	We design and tailor our electronic performance support systems to meet our learning needs.	1	2	3	4	5
49	People have full access to the data they need to do their jobs effectively.	1	2	3	4	5
50	We can adapt software systems to collect, code, store, create, and transfer information in ways best suited to meet our needs.	1	2	3	4	5

SECTION D

Please provide your own experiences and comments you wish to make:

Thank you for your cooperation

APPENDIX B

1. Reliability Test for Pilot Test
2. Normality Test
3. Descriptive Analysis
4. Validity Test
5. Reliability Test
6. Correlation Analysis
7. Multiple Regression Analysis

Reliability Test for Pilot Test

- Reliability Test for DV - Performance of SMEs Manufacturing Firms

Reliability Statistics

Cronbach's Alpha	N of Items
.951	15

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Profitability	56.90	85.886	.822	.946
Sales turnover	57.03	86.309	.785	.946
Sales growth	57.33	83.747	.741	.948
Return on investment	57.10	85.266	.819	.946
Market share	57.03	82.171	.860	.944
Customer satisfaction	56.50	88.948	.726	.948
Customer retention	56.57	87.082	.821	.946
Business image	56.57	89.357	.645	.949
Workplace industrial relation	56.70	89.183	.562	.951
Work and life balance	57.03	89.482	.362	.959
Return on sales	57.17	87.316	.731	.948
Cash flow	57.13	88.326	.778	.947
Net profit	56.93	84.409	.852	.945
Market share	56.90	82.369	.888	.944
Return on investment	57.10	85.128	.829	.945

- Reliability Test for DV 1 - Overall Performance of SMEs Manufacturing Firms

Reliability Statistics

Cronbach's Alpha	N of Items
.912	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Profitability	37.13	34.326	.818	.896
Sales turnover	37.27	34.685	.769	.898
Sales growth	37.57	33.495	.682	.904
Return on investment	37.33	34.644	.735	.900
Market share	37.27	32.685	.786	.896
Customer satisfaction	36.73	36.409	.704	.903
Customer retention	36.80	35.131	.812	.897
Business image	36.80	36.028	.699	.903
Workplace industrial relation	36.93	35.857	.610	.907
Work and life balance	37.27	35.720	.404	.927

- Reliability Test for DV 2 - Performance of SMEs Manufacturing Firms
relative to their major competitors

Reliability Statistics

Cronbach's Alpha	N of Items
.931	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Return on sales	15.93	9.375	.749	.928
Cash flow	15.90	10.024	.729	.932
Net profit	15.70	8.493	.867	.905
Market share	15.67	7.885	.896	.901
Return on investment	15.87	8.602	.871	.905

- Reliability Test for IV - Systematic Learning Organization Model (SLOM)

Reliability Statistics

Cronbach's Alpha	N of Items
.973	50

- Reliability Test for IV 1 - Dynamic Learning

Reliability Statistics

Cronbach's Alpha	N of Items
.915	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Continuous learning	35.10	37.817	.638	.909
Manage learning & development	35.17	37.661	.722	.905
Avoid distortion	34.87	37.775	.586	.911
Coached and trained	35.23	35.909	.709	.904
Ranges of methodologies	35.13	35.568	.707	.905
Expand knowledge	35.27	36.202	.638	.909
Action-learning process	35.23	35.909	.675	.907
Share learning	34.87	35.223	.821	.898
Think & act with comprehensive system	35.03	36.033	.609	.911
Receive training	35.10	34.507	.791	.899

- Reliability Test for IV 2 - Organizational Transformation

Reliability Statistics

Cronbach's Alpha	N of Items
.938	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Understand LO	35.77	42.461	.713	.934
Support the vision	35.50	40.810	.900	.925
Climate that supports & recognized	35.43	40.254	.821	.928
Committed to continuous learning	35.63	41.689	.834	.928
Learn from failure	35.20	44.441	.579	.939
Rewards people	35.60	41.145	.704	.935
Learning opportunities	35.63	39.068	.813	.929
Share knowledge	35.57	42.599	.683	.935
Organization is streamlined	35.17	42.764	.743	.933
Coordinate goals	35.40	40.800	.754	.932

- Reliability Test for IV 3 - Empowering People

Reliability Statistics

Cronbach's Alpha	N of Items
.856	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Empowered work force	36.60	19.283	.712	.829
Authority	36.77	21.013	.525	.846
Work together	36.57	21.013	.571	.843
Roles of manager	37.17	20.902	.343	.867
Enhance learning	37.07	19.237	.597	.840
Share information	36.77	19.082	.751	.826
Suppliers opportunities	36.87	21.637	.469	.850
Up-front planning of resource	36.97	19.895	.690	.833
Joint learning event	36.93	19.789	.585	.841
Learning partners	37.00	21.034	.471	.850

- Reliability Test for IV 4 - Knowledge Management

Reliability Statistics

Cronbach's Alpha	N of Items
.902	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Information to improve	38.07	28.478	.229	.913
Internal & external info	38.13	26.671	.619	.896
Monitor trends	38.20	25.200	.654	.892
Creative thinking & experimentation	38.50	24.810	.628	.893
Demonstration projects	38.40	24.248	.782	.884
System & structure	38.53	23.568	.727	.887
Retain learning	38.77	22.185	.836	.878
Cross-functional teams	38.80	22.441	.784	.883
New strategies & mechanisms	38.43	24.668	.583	.897
Specific areas, units, & projects	38.47	24.602	.695	.889

- Reliability Test for IV 5 - Technology Application

Reliability Statistics

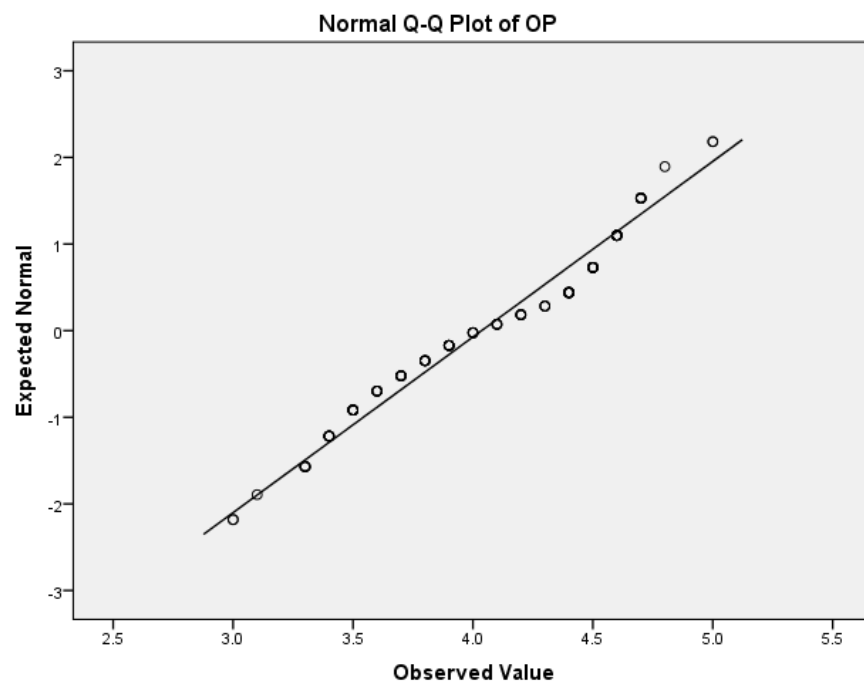
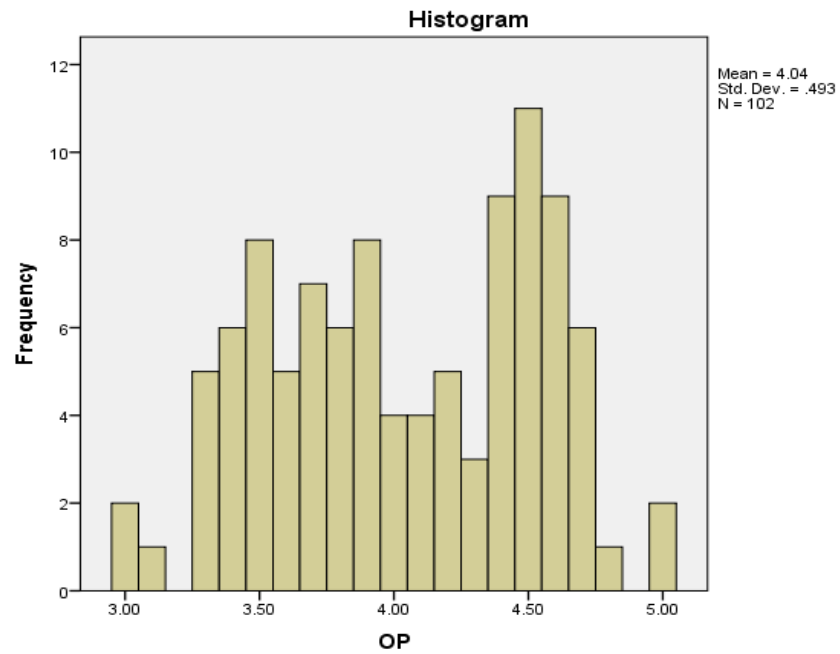
Cronbach's Alpha	N of Items
.945	10

Item-Total Statistics

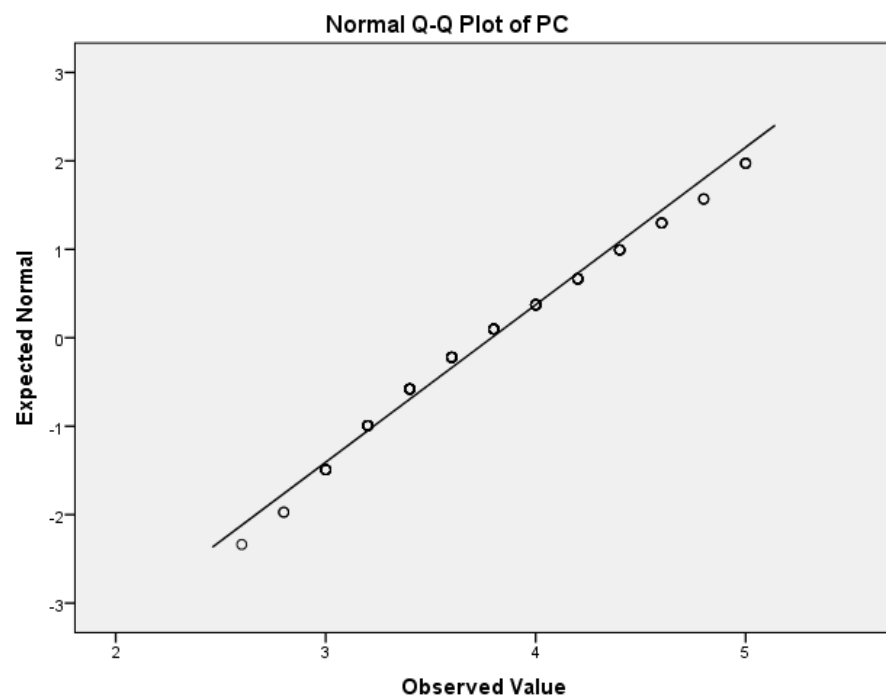
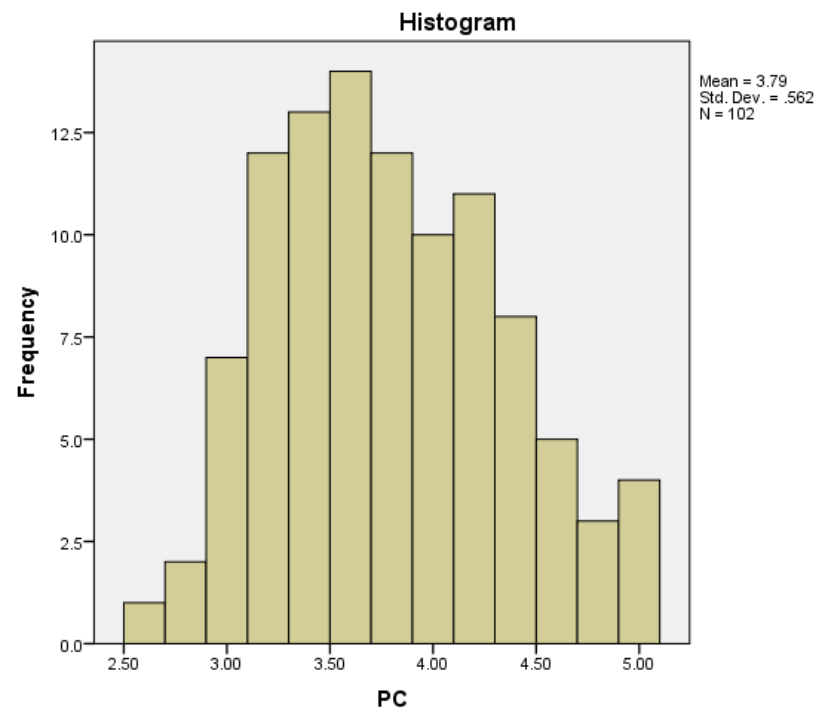
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Computer-based information	36.23	41.220	.749	.941
Access to information highway	36.30	40.010	.802	.938
Learning facilities	36.60	39.421	.687	.944
Computer-assisted learning programs	36.37	38.378	.861	.935
Groupware technology	36.60	38.455	.816	.937
Just-in-time learning	36.67	38.506	.746	.941
EPSS - Electronic performance support systems	36.33	40.368	.836	.938
Design & tailor EPSS	36.53	40.326	.751	.940
Full access to the data	36.37	41.275	.746	.941
Adapt software system	36.80	36.993	.813	.938

Normality Test

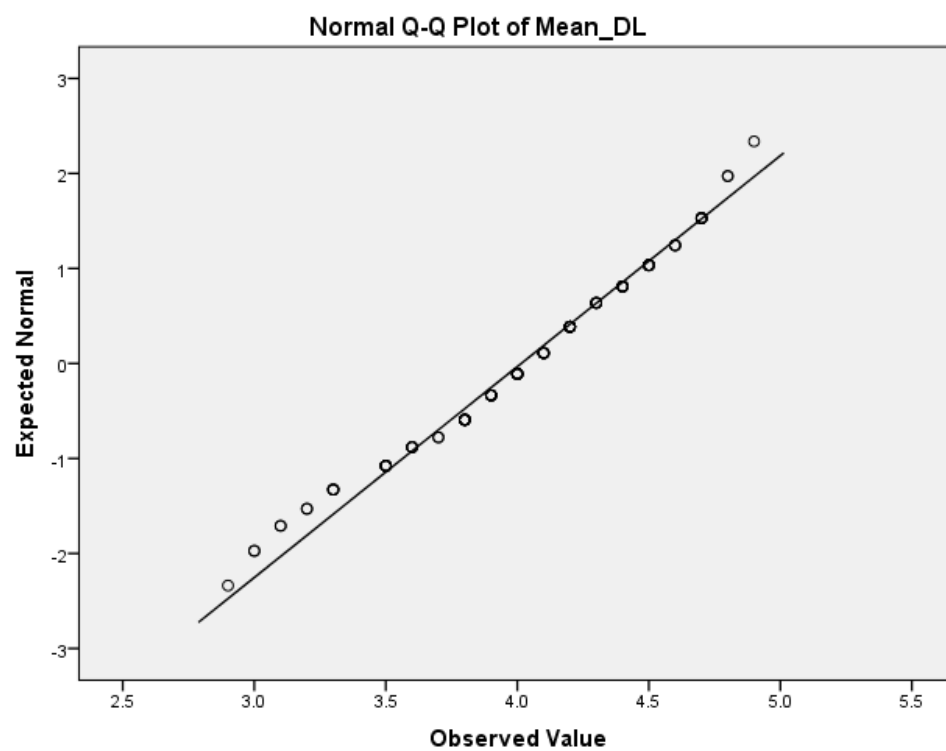
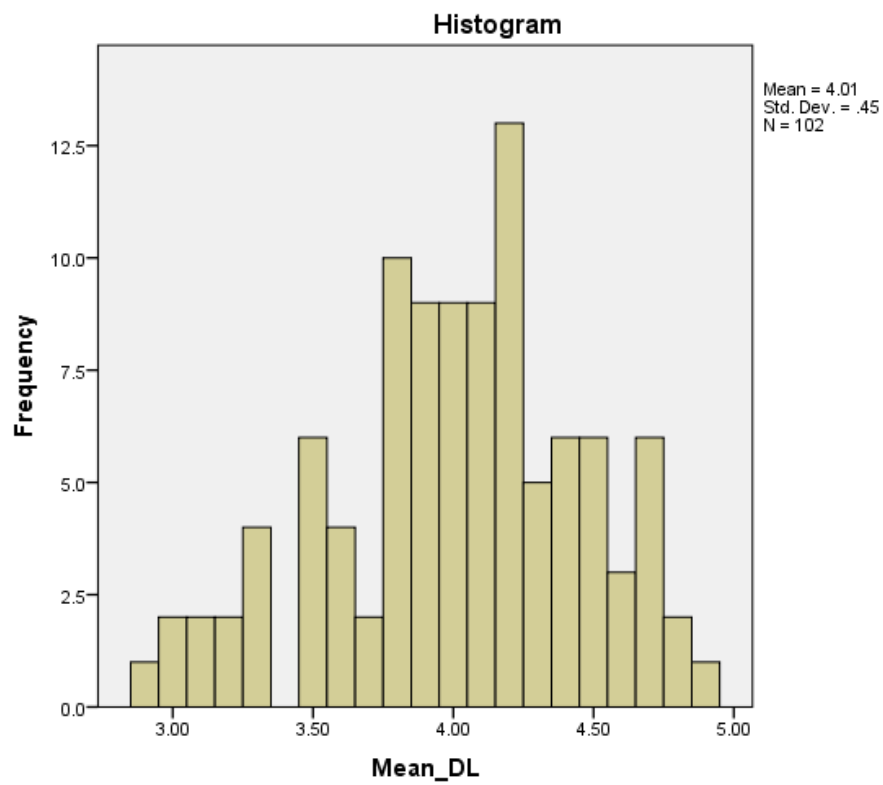
- Normality Test for DV 1 - Overall Performance of SMEs Manufacturing Firms



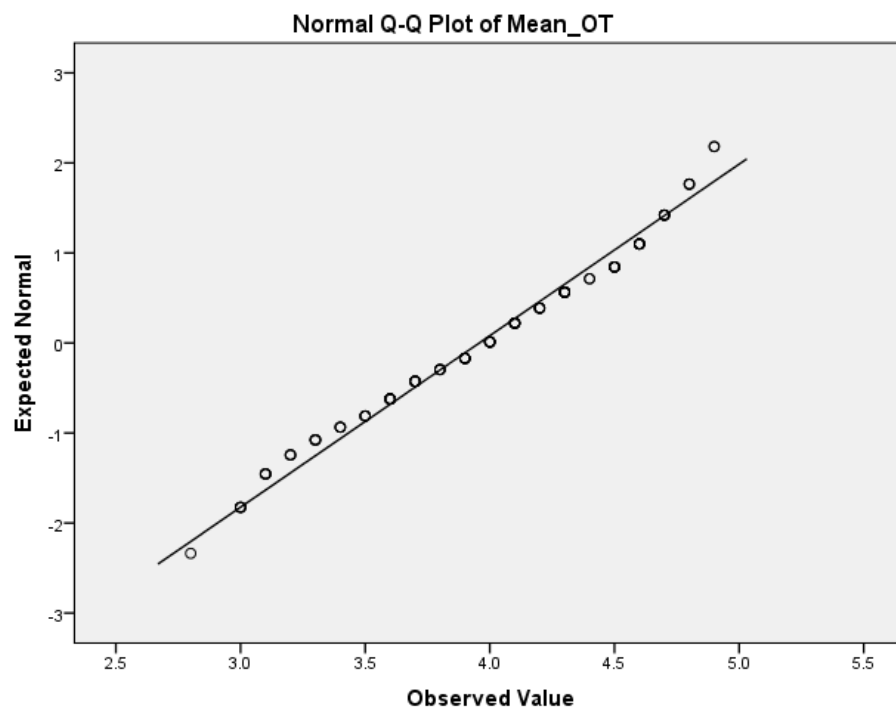
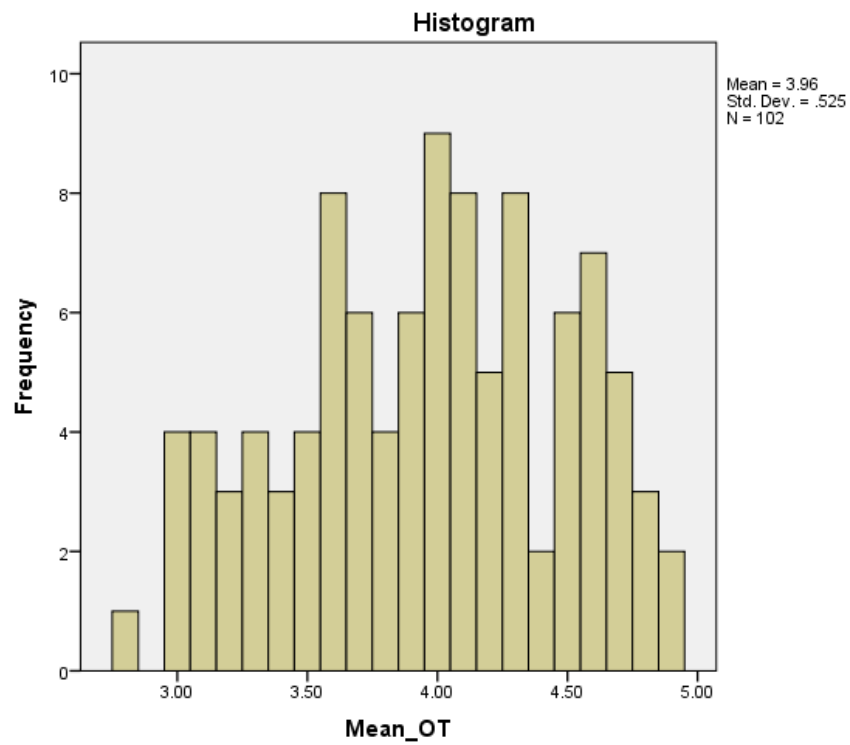
- Normality Test for DV 2 - Performance of SMEs Manufacturing Firms relative to their major competitors



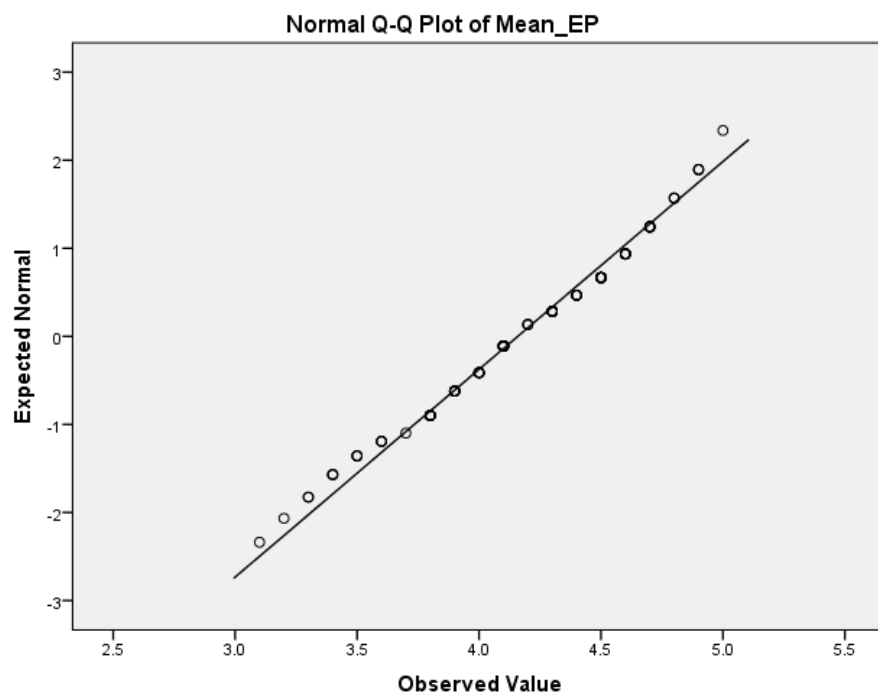
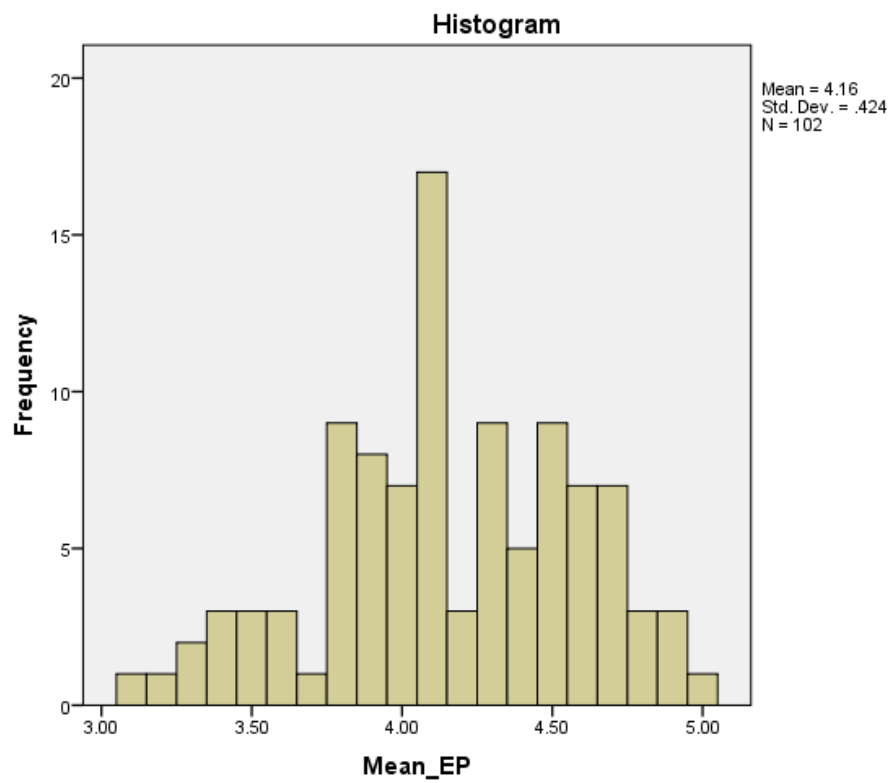
- Normality Test for IV 1 – Dynamic Learning



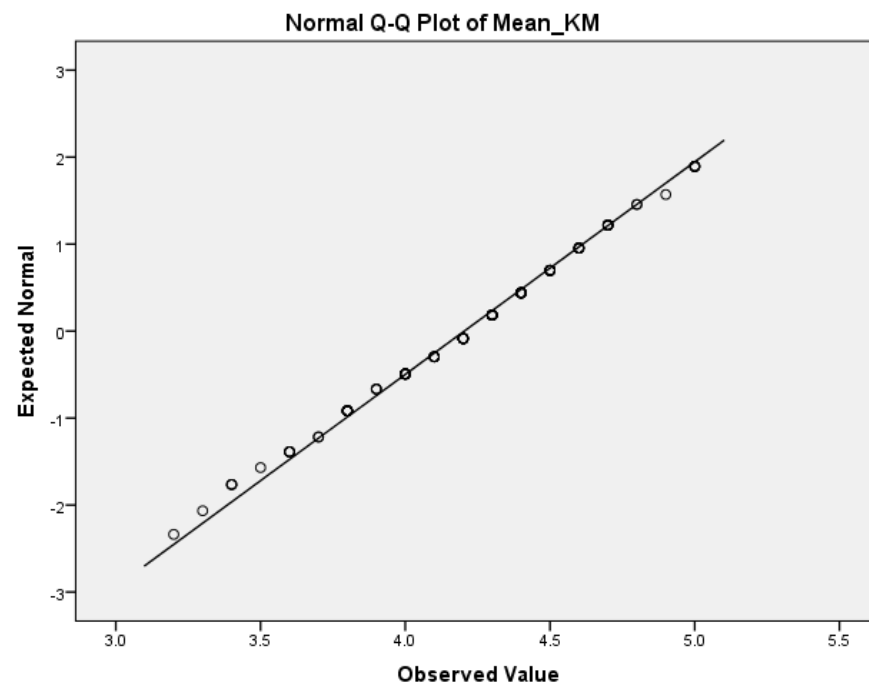
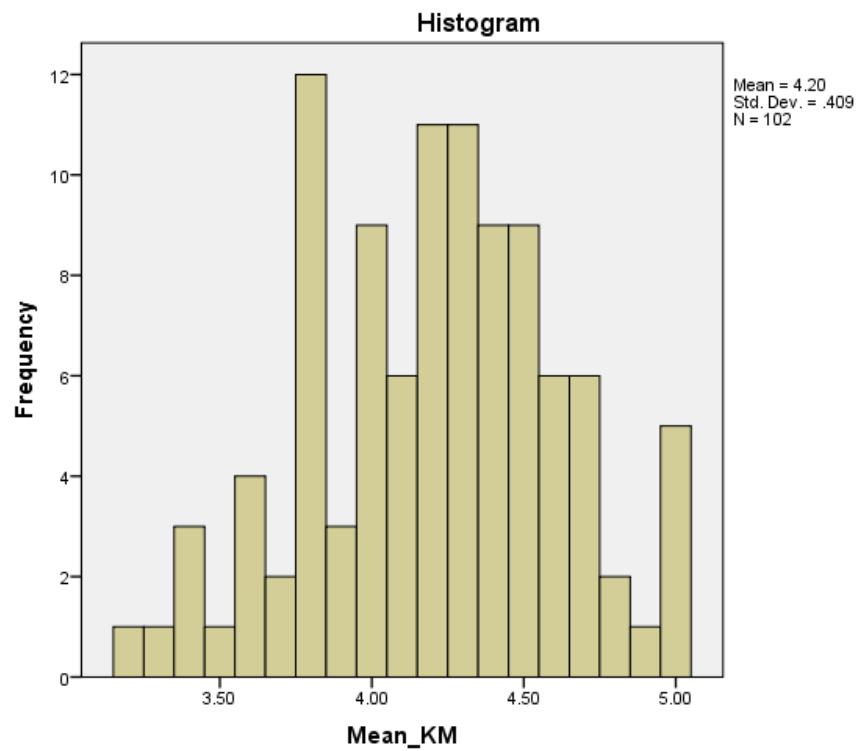
- Normality Test for IV 2 – Organizational Transformation



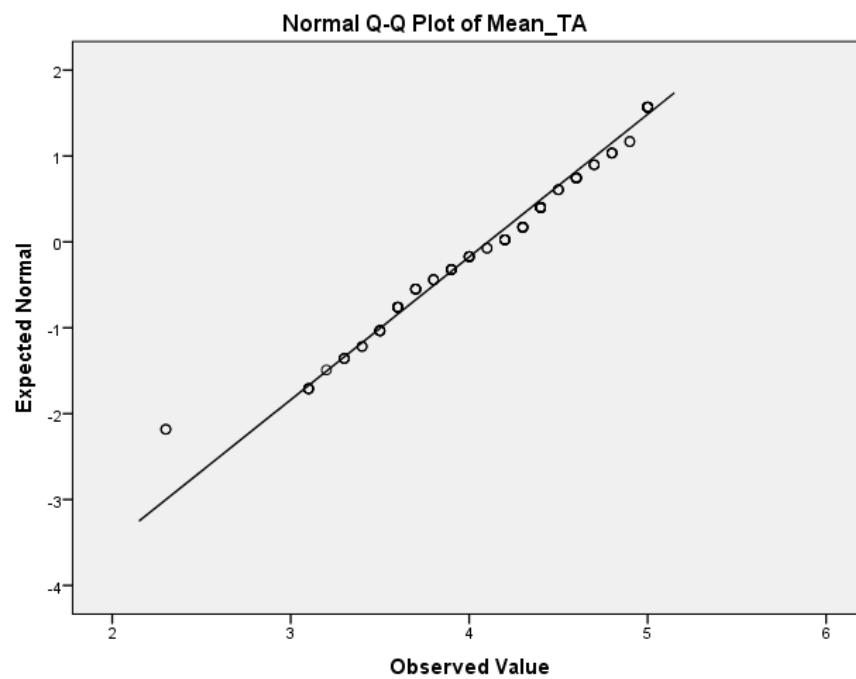
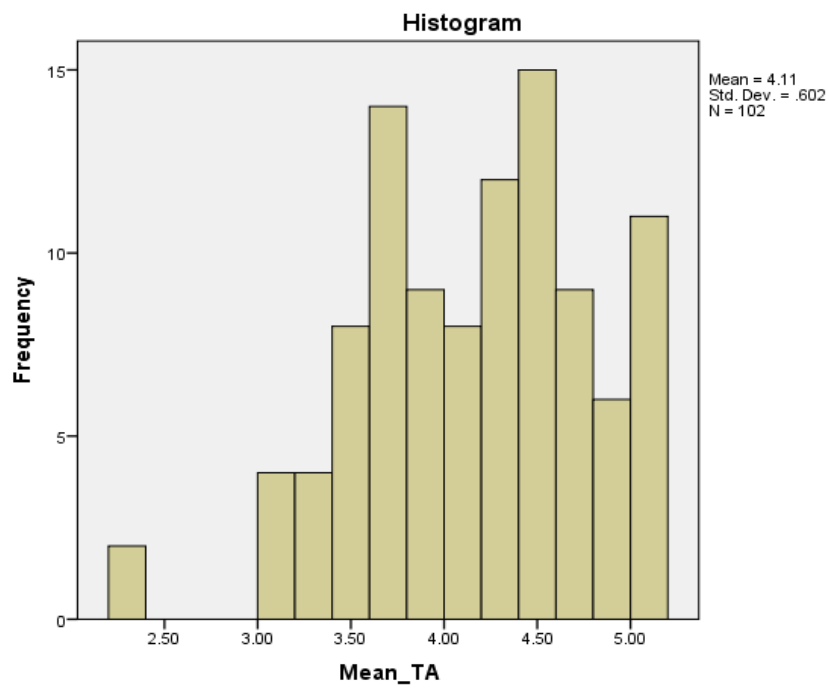
- Normality Test for IV 3 – Empowering People



- Normality Test for IV 4 – Knowledge Management



- Normality Test for IV 5 – Technology Application



APPENDIX 3

Descriptive Analysis

Descriptive Statistics

[illegible]

Validity Test

- Validity Test for DV 1 - Overall Performance of SMEs Manufacturing Firms

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.806
Approx. Chi-Square		366.769
Bartlett's Test of Sphericity	df	45
	Sig.	.000

Rotated Component Matrix^a

	Component	
	1	2
Profitability	.776	
Sales turnover	.751	
Sales growth	.726	
Return on investment	.759	
Market share	.691	
Customer satisfaction	.659	
Customer retention	.674	
Business image		.596
Workplace industrial relation		.759
Work and life balance		.753

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

- Validity Test for DV 2 - Performance of SMEs Manufacturing Firms relative to their major competitors.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.820
	Approx. Chi-Square	184.415
Bartlett's Test of Sphericity	df	10
	Sig.	.000

Rotated Component Matrix^a

--

a. Only one component was extracted. The solution cannot be rotated.

Reliability Test for Actual Study

- Reliability Test for DV - Performance of SMEs Manufacturing Firms

Reliability Statistics

Cronbach's Alpha	N of Items
.891	15

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Profitability	55.37	45.246	.715	.878
Sales turnover	55.62	45.684	.628	.881
Sales growth	55.62	46.139	.559	.884
Return on investment	55.42	46.682	.585	.883
Market share	55.29	44.863	.672	.879
Customer satisfaction	54.97	46.643	.582	.883
Customer retention	55.14	45.248	.640	.880
Business image	54.92	47.083	.482	.887
Workplace industrial relation	55.17	48.814	.351	.892
Work and life balance	55.25	48.509	.224	.903
Return on sales	55.54	46.211	.653	.881
Cash flow	55.53	48.153	.451	.888
Net profit	55.51	45.460	.689	.879
Market share	55.46	45.102	.643	.880
Return on investment	55.58	45.355	.673	.879

- Reliability Test for DV 1 - Overall Performance of SMEs Manufacturing Firms

Reliability Statistics

Cronbach's Alpha	N of Items
.827	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Profitability	36.42	19.474	.670	.797
Sales turnover	36.67	19.611	.605	.803
Sales growth	36.67	20.066	.509	.812
Return on investment	36.47	20.529	.517	.812
Market share	36.34	19.238	.624	.800
Customer satisfaction	36.02	20.000	.599	.804
Customer retention	36.19	18.985	.671	.795
Business image	35.97	20.405	.474	.816
Workplace industrial relation	36.22	21.280	.387	.823
Work and life balance	36.30	21.125	.224	.851

- Reliability Test for DV 2 - Performance of SMEs Manufacturing Firms relative to their major competitors

Reliability Statistics

Cronbach's Alpha	N of Items
.824	5

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Return on sales	15.18	5.573	.567	.803
Cash flow	15.17	6.061	.419	.840
Net profit	15.15	4.978	.727	.756
Market share	15.10	4.802	.680	.770
Return on investment	15.22	4.943	.705	.762

- Reliability Test for IV - Systematic Learning Organization Model (SLOM)

Reliability Statistics

Cronbach's Alpha	N of Items
.951	50

- Reliability Test for IV 1 - Dynamic Learning

Reliability Statistics

Cronbach's Alpha	N of Items
.821	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Continuous learning	36.12	16.204	.556	.799
Manage learning & development	36.22	17.399	.503	.806
Avoid distortion	35.90	17.218	.474	.808
Coached and trained	36.19	16.391	.555	.800
Ranges of methodologies	36.06	16.610	.501	.806
Expand knowledge	36.30	17.184	.438	.812
Action-learning process	36.23	17.008	.458	.810
Share learning	36.05	16.918	.517	.804
Think & act with comprehensive system	36.25	16.306	.456	.812
Receive training	36.02	16.336	.612	.794

- Reliability Test for IV 2 - Organizational Transformation

Reliability Statistics

Cronbach's Alpha	N of Items
.861	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Understand LO	35.68	22.597	.589	.846
Support the vision	35.76	21.489	.726	.834
Climate that supports & recognized	35.56	21.556	.712	.835
Committed to continuous learning	35.66	22.782	.597	.846
Learn from failure	35.50	23.064	.530	.851
Rewards people	35.85	22.602	.499	.855
Learning opportunities	35.74	22.533	.583	.847
Share knowledge	35.58	23.236	.524	.852
Organization is streamlined	35.32	24.003	.447	.857
Coordinate goals	35.56	22.764	.506	.854

- Reliability Test for IV 3 – Empowering People

Reliability Statistics

Cronbach's Alpha	N of Items
.808	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Empowered work force	37.25	15.578	.460	.795
Authority	37.40	15.173	.448	.796
Work together	37.17	15.427	.400	.801
Roles of manager	37.66	15.772	.284	.814
Enhance learning	37.63	14.434	.491	.791
Share information	37.30	15.105	.468	.794
Suppliers opportunities	37.48	14.549	.532	.786
Up-front planning of resource	37.50	14.054	.663	.771
Joint learning event	37.46	14.211	.561	.783
Learning partners	37.44	14.328	.569	.782

- Reliability Test for IV 4 – Knowledge Management

Reliability Statistics

Cronbach's Alpha	N of Items
.807	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Information to improve Internal & external info	37.49	15.044	.339	.803
Monitor trends	37.71	13.358	.645	.772
Creative thinking & experimentation	37.75	14.009	.410	.798
Demonstration projects	37.97	13.989	.427	.796
System & structure	37.88	13.412	.588	.778
Retain learning	37.76	14.499	.385	.800
Cross-functional teams	37.95	13.948	.510	.787
New strategies & mechanisms	38.14	13.704	.458	.793
Specific areas, units, & projects	37.82	13.236	.551	.781
	37.87	13.399	.525	.785

- Reliability Test for IV 5 – Technology Application

Reliability Statistics

Cronbach's Alpha	N of Items
.919	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Computer-based information	36.65	31.300	.651	.913
Access to information highway	36.85	29.513	.708	.910
Learning facilities	36.97	29.237	.720	.909
Computer-assisted learning programs	36.92	29.103	.712	.909
Groupware technology	36.95	28.899	.739	.908
Just-in-time learning	37.03	29.811	.632	.914
EPSS - Electronic performance support systems	36.75	30.627	.685	.911
Design & tailor EPSS	36.99	29.356	.716	.909
Full access to the data	37.04	30.256	.658	.913
Adapt software system	37.38	27.724	.761	.907

APPENDIX 6

Correlation Analysis

		Correlations						
		Mean_DL	Mean_OT	Mean_EP	Mean_KM	Mean_TA	OP	PC
Mean_DL	Pearson Correlation	1	.774**	.639**	.665**	.556**	.526**	.438**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	102	102	102	102	102	102	102
Mean_OT	Pearson Correlation	.774**	1	.601**	.720**	.643**	.522**	.366**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	102	102	102	102	102	102	102
Mean_EP	Pearson Correlation	.639**	.601**	1	.533**	.406**	.366**	.328**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.001
	N	102	102	102	102	102	102	102
Mean_KM	Pearson Correlation	.665**	.720**	.533**	1	.563**	.475**	.393**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	102	102	102	102	102	102	102
Mean_TA	Pearson Correlation	.556**	.643**	.406**	.563**	1	.458**	.386**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	102	102	102	102	102	102	102
OP	Pearson Correlation	.526**	.522**	.366**	.475**	.458**	1	.743**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	102	102	102	102	102	102	102
PC	Pearson Correlation	.438**	.366**	.328**	.393**	.386**	.743**	1
	Sig. (2-tailed)	.000	.000	.001	.000	.000	.000	
	N	102	102	102	102	102	102	102

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

APPENDIX 7

Multiple Regression Analysis

- The influence of IV towards DV 1

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.578 ^a	.335	.300	.41258	.335	9.651	5	96	.000

a. Predictors: (Constant), Mean_TA, Mean_EP, Mean_KM, Mean_DL, Mean_OT

b. Dependent Variable: OP

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.214	5	1.643	9.651	.000 ^b
	Residual	16.342	96	.170		
	Total	24.556	101			

a. Dependent Variable: OP

b. Predictors: (Constant), Mean_TA, Mean_EP, Mean_KM, Mean_DL, Mean_OT

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.296	.486		2.667	.009
	Mean_DL	.279	.157	.255	1.778	.079
	Mean_OT	.132	.146	.141	.906	.367
	Mean_EP	-.012	.130	-.010	-.089	.929
	Mean_KM	.142	.152	.118	.933	.353
	Mean_TA	.134	.091	.163	1.470	.145

a. Dependent Variable: OP

- The influence of IV towards DV 2

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.485 ^a	.235	.195	.50396	.235	5.897	5	96	.000

a. Predictors: (Constant), Mean_TA, Mean_EP, Mean_KM, Mean_DL, Mean_OT

b. Dependent Variable: PC

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.489	5	1.498	5.897	.000 ^b
	Residual	24.381	96	.254		
	Total	31.870	101			

a. Dependent Variable: PC

b. Predictors: (Constant), Mean_TA, Mean_EP, Mean_KM, Mean_DL, Mean_OT

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.928	.593		1.563	.121
	Mean_DL	.362	.192	.290	1.889	.062
	Mean_OT	-.141	.178	-.131	-.788	.432
	Mean_EP	.081	.159	.061	.514	.608
	Mean_KM	.205	.186	.149	1.102	.273
	Mean_TA	.187	.111	.200	1.680	.096

a. Dependent Variable: PC