

## **A Study on Cross-Training and its Impact on Oman Broadband Company Performance**

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### **Abstract**

Cross-training referred as 'worker multi-functionality ' is the process of developing a multi skilled-labor force by providing employees training and development opportunities to ensure they have the general skills necessary to perform different job roles inside their organization. It involves training and teaching employees to perform two or more tasks or skills which may or may not be related to their current job task (Haas et al,2001).

Giving priority to the cross-training technique is expensive to any organization initially. But at the same time this technique can minimize the overall expenses of the organization in the long run, and it can be helpful to the management to develop the multi skilled employees, solving the customer queries within the less span of time, raising the customer satisfaction and finally to improve the company revenues through the raised customer size. The companies which are implemented the cross-training technique should gain proper results and benefits. It should gain more revenues than the amount what it spent for cross-training activity. Otherwise there is no logic to give priority to the cross-training activity. Through the current research topic, the researchers are aimed to gather the information about, how the cross-training techniques is helpful to the Oman Broadband Company to raise its performance.

**Key words:** Cross training, Broadband, Multi skilled and Performance

## **Introduction**

Cross-training is one of the weapon which the companies are using now to raise their employee's multiple skills and capabilities. The cross-trained employee is more worthful in the organization due to the reason that, he/she can be easily take over the queries and responsibilities of more than one particular area. Eventually it is also possible to boost the overall organization performance through the cross-training technique. As like as organization the employees are also gaining advantages through the cross-training program. This is the good opportunity to them to get training in more than one particular area and to address the different queries, issues and problems. The employee can gain good exposure and working knowledge in fast mode. The researchers are chosen this topic as there is a trend towards cross-training activity in the present job market. As it is one of the trendy and interesting topics, the researchers want to understand the reasons, impact and expectations of cross-training activity in the organization. Cross-training ensures that the employees of the organizations will keep competent, motivated and effective at the workplace. For this taken topic the researchers chosen Oman broadband company. This company provides and maintains the broadband infrastructure service to the country Sultanate of Oman.

### **Aim and objectives of the study:**

1. To explore the various cross-training activities offered by Oman Broadband Company to its employees
2. To determine the major reasons to train the employees in more than one area
3. To investigate the benefits which may avail through the cross-training activity and to evaluate the employee views about the impact of cross-training on organizational performance

### **Significance of the study**

This research is more helpful for the management students, company employees, company management and for other research scholars to refer the research results. This research will be helpful to them to improve their knowledge about the cross-training activity and how it affects the performance of the Oman Broadband Company.

## Review of literature

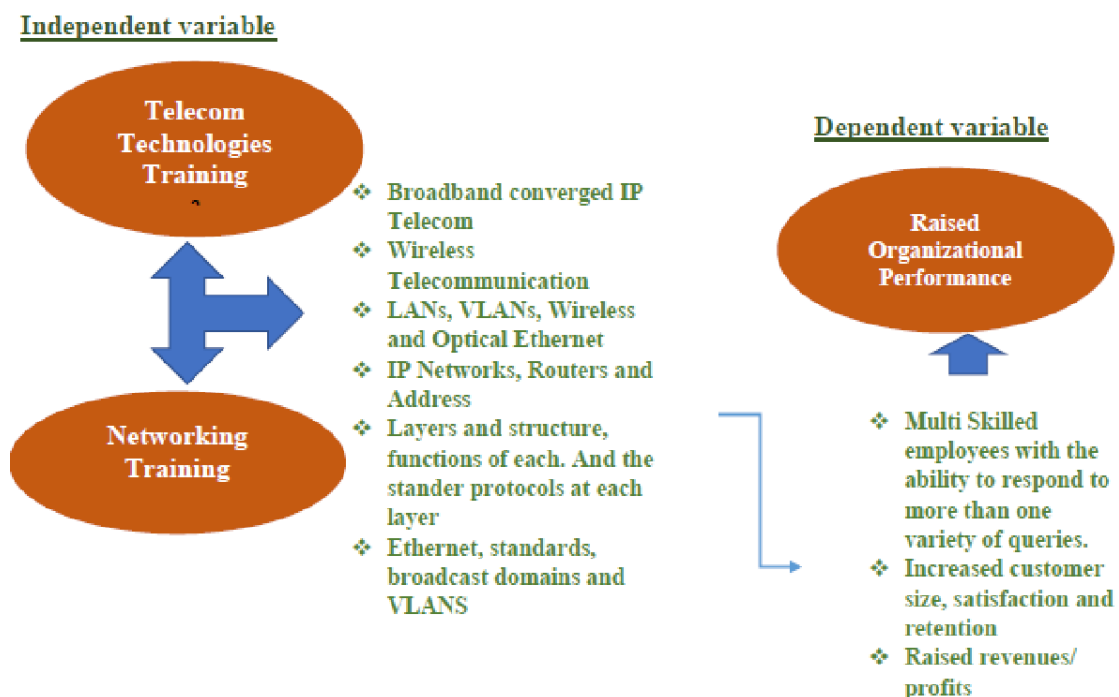
- According to Vasanthi et al. (2020), Cross-training is essential to enhancing both employee and organizational performance. Cross-training raises employees' skill and productivity levels. The best way to boost employee performance on both an individual and a team level is through cross training.
- According to Stanica & Peydro (2016), Cross training is intended in a company, to enhance employees' expertise across positions. The coordination between several teams will remain beneficial as a result. In order to understand the bigger picture of the job in the firm, employees will gain the skills needed to fulfill different roles.

(and few other literatures....)

## Research Gap

Even though there are few studies about cross-training and organizational performance, but there is no study found about the Impact of cross-training on Oman broadband company performance. So, the researchers are considered it as a research gap and chosen the current research work title and conducted research.

## Conceptual Framework



The conceptual framework illustrates the relationship between independent and dependent variables exercised in this study. As shown in the diagram above the two main independent variables that influence organizational performance are telecom technologies Training and Networking Training. The Telecom Technologies cross-training activities include Broadband converged IP Telecom, wireless Telecommunications, Ip Networks, and Routers, addresses in addition to the networking cross-training implied in Oman Broadband Company. These are the activities that include layers, structure, and functions. Each layer has its standard and protocols. Based on the telecom technologies cross-training and networking cross-training, Oman Broadband Company's performance improved. Through Multi-skilled employees the time used in resolving queries becomes less, therefore, leading to increasing customer size and revenue.

### **Research Design**

For the current research work, researchers chosen descriptive research design and quantitative methods. Numerically the data is going to collect with the help of a structured questionnaire. The questionnaire was distributed to the participants through the Google forms. A systematic questionnaire is going to be used in order to capture the data numerically. Researchers are going to use convenience sampling method. In this research the participants are the employees of Oman Broadband company. The research population is 179 employees. The sample size will be 123 employees from different departments within the company. Researchers chosen non-probability convenience sampling technique.

### **Gathering of Data**

Two different approaches are taken in the present study in order to acquire the necessary data. The information from the structured questionnaire used in the online survey is the source to the **primary data**. On the other hand, the **secondary data** came from previously published publications, newspapers, and websites.

### **Treatment of Data**

To analyze the research information, the researchers planned to use percentage calculation and the result will be displayed with the help of graphical diagrams and tables through MS Excel document. Researchers are also, used correlation and chi-square test to find the relationship between data frequency.

Sl No	Questions	1		2		3		4		5		N	%
01	The cross-training program which is offered by the Oman broadband company is worthful to maximize the job productivity.	39	31.7%	35	28.5%	24	19.5%	13	10.6%	12	9.8%	123	100%
02	Under telecom technologies training program, Oman broadband company is instructing its employees about the activities of LAN, VLAN, Ethernet, IP address etc.	26	21.1%	47	38.2%	23	18.7%	17	13.8%	10	8.1%	123	100%
03	Through the telecom technologies cross-training program the employees can fulfill the required performance standards of Oman Broadband Company	35	28.45 %	43	34.83%	19	15.39%	15	12.15%	11	8.91%	123	100%
04	Oman Broadband company is providing cross-training to its employees about various network training activities.	22	17.9%	45	36.6%	24	19.5%	27	22%	5	4%	123	100%
05	Under network training program, Oman broadband company is instructing its employees about the activities of Ethernet, broadcast domains, layers, and its structures etc.	16	13%	52	42.3%	15	12.2%	32	26%	8	6.5%	123	100%
06	Through Network cross-training activities the same employee can work in more than one specific area as per the situational requirements	18	14.6%	58	47.2%	16	13%	26	21.1%	5	4.1%	123	100%
07	The raised queries can be solved in less span of time through multi-skilled employees.	45	36.6%	36	29.3%	21	17.1%	15	12.2%	6	4.9%	123	100%
08	Through Cross-training programs and raised skills, it is possible to raise the customer satisfaction about the services offered.	30	24.4%	57	46.3%	21	17.1%	9	7.3%	6	4.9%	123	100%
09	Through cross-trained employees it is possible to retain the customers.	55	44.7%	16	13%	19	15.4%	28	22.8%	5	4.1%	123	100%
10	Cross-training practice can positively influence Oman Broadband company's overall performance.	44	35.8%	36	29.3%	20	16.3%	17	13.8%	6	4.9%	123	100%
11	Cross-training practice makes the company stronger to offer more services which will increase their revenues/profits.	37	30.1%	46	37.4%	17	13.8%	18	14.6%	5	4.1%	123	100%

1 - Strongly Agree, 2 – Agree, 3- Neutral, 4- Disagree, 5- Strongly

**Disagree**

Chi-Square Test-1

The main aim of the using the Chi-Square test in the present study is to confirm the association between employee views about the statements of:

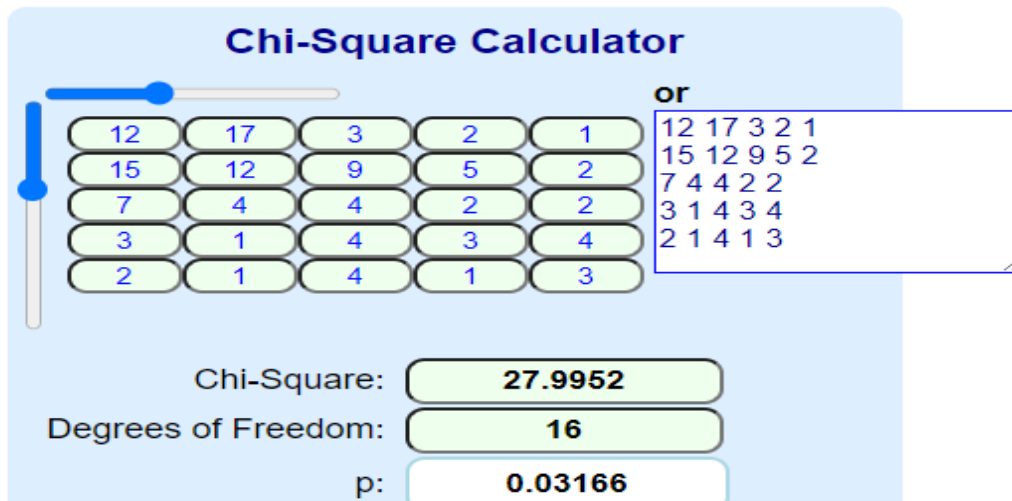
**Statement 1:** The cross-training program which is offered by the Oman broadband company is worthful to maximize the job productivity.

**Statement 2:** Through the telecom technologies cross-training program the employees can fulfill the required performance standards of Oman Broadband Company.

H0: *Null Hypothesis:* There is no association between the employee views about the statements of “The cross-training program which is offered by the Oman broadband company is worthful to maximize the job productivity and Through the telecom technologies cross-training program the employees can fulfill the required performance standards of Oman Broadband Company”

H1: *Alternative Hypothesis:* There is an association between the employee views about the Statements of “The cross-training program which is offered by the Oman broadband company is worthful to maximize the job productivity and Through the telecom technologies cross-training program the employees can fulfill the required performance standards of Oman Broadband Company”

	The cross-training program which is offered by the Oman broadband company is worthful to maximize the job productivity						
Through the telecom technologies cross-training program the employees can fulfill the required performance standards of Oman Broadband Company		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
	Strongly Agree	12	17	3	2	1	35
	Agree	15	12	9	5	2	43
	Neutral	7	4	4	2	2	19
	Disagree	3	1	4	3	4	15
	Strongly Disagree	2	1	4	1	3	11
	Total	39	35	24	13	12	123



Source: (<https://www.mathsisfun.com/data//chi-square-calculator.html>)

### Conclusion

As the above result table shows the value of Chi Square is 27.9952, which is > to table value 26.296 at 0.05 significance level. Hence the null hypothesis is rejected. So, it is concluded that **there is an association between the employee views** about the statements of “The cross-training program which is offered by the Oman broadband company is worthful to maximize the job productivity and Through the telecom technologies cross-training program the employees can fulfill the required performance standards of Oman Broadband Company”

### Correlation Coefficient

**Statement 1:** The cross-training program which is offered by the Oman broadband company is worthful to maximize the job productivity.

**Statement 2:** Through the telecom technologies cross-training program the employees can fulfill the required performance standards of Oman Broadband Company.

<b>X Values</b> (Statement 1)	<b>39</b>	<b>35</b>	<b>24</b>	<b>13</b>	<b>12</b>
<b>Y Values</b> (Statement 2)	<b>35</b>	<b>43</b>	<b>19</b>	<b>15</b>	<b>11</b>

Result Details & Calculation	Key
<p><b>X Values</b>  <math>\Sigma = 123</math>  Mean = 24.6  <math>\Sigma(X - M_x)^2 = SS_x = 609.2</math></p> <p><b>Y Values</b>  <math>\Sigma = 123</math>  Mean = 24.6  <math>\Sigma(Y - M_y)^2 = SS_y = 755.2</math></p> <p><b>X and Y Combined</b>  <math>N = 5</math>  <math>\Sigma(X - M_x)(Y - M_y) = 627.2</math></p> <p><b>R Calculation</b>  <math>r = \Sigma((X - M_x)(Y - M_y)) / \sqrt{((SS_x)(SS_y))}</math></p> $r = 627.2 / \sqrt{((609.2)(755.2))} = 0.9247$ <p><b>Meta Numerics (cross-check)</b>  <math>r = 0.9247</math></p>	<p><b>X:</b> X Values  <b>Y:</b> Y Values  <b><math>M_x</math>:</b> Mean of X Values  <b><math>M_y</math>:</b> Mean of Y Values  <b><math>X - M_x</math> &amp; <math>Y - M_y</math>:</b> Deviation scores  <b><math>(X - M_x)^2</math> &amp; <math>(Y - M_y)^2</math>:</b> Deviation Squared  <b><math>(X - M_x)(Y - M_y)</math>:</b> Product of Deviation Scores</p>

The value of R is 0.9247.

This is a strong positive correlation, which means that high X variable scores go with high Y variable scores (and vice versa).

[Click here to calculate a p-value.](#)

The value of  $R^2$ , the coefficient of determination, is 0.8551.

Source: (<https://www.socscistatistics.com/tests/pearson/default2.aspx>)

As per the calculations shown in the above table the correlation  $r$  value is 0.924, which means there is a strong positive correlation between the taken two statements. There is a correlation between the cross-training program offered by Oman broadband company and the employee performance standards achievement.

## Findings

1. Most of the employees (60.2%) are maximizing their job productivity through cross training program which is offered by Oman Broadband company.
2. In Oman Broadband company majority of the company employees (59.3%) are instructed about LAN, VLAN, Ethernet and IP address activities through the telecom technologies cross-training program
3. Majority of the employees (63.28%) are fulfilling the required performance standards of Oman Broadband company through telecom technologies cross-training program.
4. Oman Broadband company is providing cross-training to its majority of employees (54.5%) about the related network training activities.
5. Most of the employees (55.3%) are trained about Ethernet, broadcast, domains, layers and its structures through network cross-training program.



6. Most of the employees (64.8%) are able to work in more than one specific area as per the situational requirement after they successfully completed their network cross-training activity.
7. Cross-training program is helped to (58.6%) of the Oman Broadband company employees to improve their multi skills from their current level to next level.
8. Most of the employees (65.9%) are able to solve the raised queries within less span of time through their raised multi skills.
9. Majority of the company employees (65.9%) are confident that, through cross-training program and raised skills it is possible to gain more customer satisfaction about the services what their company is offering.
10. Most of the Oman Broadband company employees (57.7%) are accepting that, through cross-trained employees it is much possible to retain the customers.
11. In Oman Broadband company, it is much possible to increase the new customer base through cross-trained employees.
12. In Oman Broadband company cross-training practice is positively influencing the company's overall performance.
13. Cross-training practice makes the company stronger to offer more services and in return it will raise Oman Broadband company's revenues/profits.
14. The cross-training activities which are offered in Oman Broadband company are, Introduction to Broadband converged IP Telecom, Wireless Telecommunication, Fundamental of Voice over IP, The PSTN, OSI Layers and protocol stacks, LANs, VLANs, Wireless and Optical Ethernet, IP address, Packets, and Routers and MPLS and Carrier Network training program.
15. In Oman Broadband company under network training program, the employees are trained about the activities of; Layers and its structure, functions of each, and the standard protocols at each layer, Ethernet, standards, broadcast domains and VLANs, IP routers, IP addresses, DHCP, public and private addresses, Network Address Translation and IPv6, Traffic management system MPLS, and how MPLS is used to manage IP packet flows, implement VPNs, classes of service, service integration and traffic aggregation, IP Networks, Routers and Addresses.
16. Oman Broadband company is providing cross-training to its employees due to the major reasons of; to raise the employee competencies, to develop multi skilled employee, to produces more collaborative employees, to avoid work assigning and scheduling, to create workforce sustainability, to raise the employment engagement, to raise customer

satisfaction, to retain the customers in long run, to raise the overall productivity and efficiency, to avoid work assigning and scheduling disturbances, to raise organizational revenues and overall performance and to compete with their competitors.

17. Through cross-training activity, Oman Broadband company is availing the major benefits of; accumulating the multi skilled employees, ability to depute any employee to any kind of customer issues, reduced problem-solving time, less expensive to train and more returns through raised skills, increased organizational efficiency, increased opportunities for employee advancement, raised competency to compete with the competitors, proven track record to attend the various customer / client issues, and the possibility of cross-team collaborations.

18. After implementing the cross-training activity, Oman Broadband company is observed the major changes of; In-time work completion, achieving the periodical targets, proven track record of performance, raised customer size, increased customer satisfaction ratings, increased employee retention rates, enriched operations, ability to introduce new products, increased sales turnover, increased profits comparatively to its previous year and finally awards and rewards from the industry.

### **Recommendations**

- It is recommended to consider the employee interest their profiles, before to choose them for the cross-training activity.
- Gap analysis activity should be done before starting the multi-skilled training to analyze the gaps between skills currently possessed and skills required.
- It is also suggested to use different training techniques to different categories of employees.
- Training content should be simplified to sub-tasks. So that it will be easy to focus, learn and to implement.
- Employee motivation programs and employee awareness programs are required to implement, to educate the employees about the importance and worth of cross-training activity.
- Cross-trained employee should be given with opportunities to prove his/her raised abilities and skills.
- It is suggested to add, cross-training completion as one of the key performance indicator; so that the employees may show more concern about their cross-training requirement.

## Conclusion

Cross-training is a modern technique which the companies are focusing much to accumulate their skilled and capable employees. One way it is helping them to overcome the employee shortage and employee absenteeism problems. Due to their employees are properly trained in more than one area of functionality, they can be easily deputed to provide solutions to different kinds of queries which may arise timely. As per the current research result, it is very clear that, cross-training activity makes a huge positive impact on the Oman Broadband Company performance. The customer size, customer satisfaction, customer retainment and gaining the new customers, raising the revenues and profits, awards and rewards, customer appreciation, employee retainment, cost-cutting are the some of the advantages which the organization can expect through the cross-training activity.

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