

The Influence of Multi-Specialization on Employee Productivity with Moderating Role of Work Autonomy and Mediation of Employee Creativity

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Abstract

Multi-specialization is among the main management subjects that earned important research attention and support from many scholars and was seen as a primary method for improving organizational performance. To ensure long-term success, it is imperative to know what the main factors which determine specialization are. This study looks the impact of multi-specialization on employee's productivity in telecom industry. To achieve this, primary data we used the online and self-administrative survey instrument to accumulate data. The number of respondents was 305 from telecom sector of different Pakistan's cities. The data collected and analyzed on SPSS. The conclusion showed that multi-specialization had a major positive impact on efficiency of employees. In addition, this research supports the idea that multi-specialization, flexibility of work and innovation of employees have major positive implications on productivity of employees.

Keywords: Multi-specialization • Employee productivity • Work autonomy • Employee creativity

Introduction

The purpose of this study to promote the idea of multi-specialisation and employee productivity through worker creativity and job independence. The multitasking principle contributes to a balance between employee innovation and employee efficiency and is also related to the preservation of individual development and interpersonal well-being. Adam Smith established the conventional definition of multiple specializations and discussed it via Mill in, Taylour in, Booh, Slaughter, and Spinozaa in, and Carvalhoo. This definition aims to achieve a subtle trend of specialization degree in profound individual career goals [1].

Multi-specialization

A versatile person can master two or more areas of knowledge at a high level. Not very knowledgeable, because the experts simply have skills in this that facilitate the achievement of a standard of living. This makes people more able to work in different ways. Versatile person bears more responsibilities every day according to their regions. This article's key idea is to have several specialties, which is to reach a solution to the challenges staff face on the industry. The aim of the article is to propose a new approach to structure a marketplace that takes personal desires with an ambitious move toward to creating a new vision of imaginative, global and

complex interdependence to increase employee productivity. Different fields can also be seen as a modern way of creating new employment in diverse markets.

The first person to find something associated with the idea of weight in this report is the nineteenth-century artist John Roskins. He was fascinated in every facets of human being nature, and becoming conscious of the value of using a multitasking philosophy is a recent idea due to pure his work as an artist. The rise in graduate numbers today falls in line with the increase in unemployment rate. Nonetheless, the idea of multiple specialization as a well-defined and method is still fundamentally unique and no previous research has therefore needed to use it. This research represents a initial step towards the full understanding of this modern labor market method and we had to find the first actual statistics to show its value and efficacy. The principal imaginative inspiration of this article is the modern multidisciplinary definition [2].

Employees creativity

The basis for organizational advancement is employee creativity, which is characterized as creating new and useful inventions, goods, services, or organizational strategies. The research also revealed strong ties between innovation of employees and efficiency of employees. Employee innovation is also a significant strategic advantage that can drive institutional growth. Organizational analysis

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has therefore taken great care to discover the factors that influence employee innovation. Whereas previous work concentrated on personality interaction with creative success and creativity-related cognitive abilities, subsequent researchers analyzed organizational circumstances correlated with higher creativity rates. For instance, this literature has shown the value of job autonomy, relationships with managers and coworkers, time limits and objectives [3].

While hotel organizations have traditionally depend on worker creativity as a vital aspect in performance, the scope for drive parameters has been restricted in the services industry. In this case, creativity refers to the creation of innovative and valuable concepts concerning goods, services, business standard operating actions.

Allowing your employees to choose the right way to achieve a specific business goal is refreshing and challenging technology. This indicates that you have confidence in the knowledge and judgment of your employees, which will allow them in the long run to achieve the goals that you set for them. An example might be giving the creative officer a creative group / committee. It appears that you trust them to manage their ideas and ideas in order to also generate creativity within the company. This employee will be more likely to stick to his role and show more passion. This is a critical factor necessary to help develop creativity in the workplace. The entire asset must support the creative effort to ensure its successful implementation. If the employee feels the support of his team in general, he is more likely to feel motivated and empowered in his own work, which will stimulate creativity [4].

Employee productivity

The most significant aim for many companies is to increase the employee productivity. Because a high degree of staff efficiency benefits for company and its workers. Greater productivity, for sure, leads to beneficial economic development, enhanced prosperity and greater social development. Moreover, higher salaries and benefits, improved working conditions and more career prospects can be gained by more productive workers. Therefore, higher efficiency helps to improve the competitive advantage of the company by lowering costs and increasing high quality performance. This is also necessary to ensure the organisation's long-term sustainability and longevity.

In 2010 Sridevi's creators clarify an employer should consider investigating the recruitment of employees. Since recent studies on this subject have clearly suggested a positive relationship among work progression and performance results across an creative culture. In fact, workers who are recruited in many contexts think that working more effectively and with the intention of making organizational progress a top priority in their minds. In addition, the productivity of employees has recently appeared in the literary works and is of paramount importance. For example, the most recent research on employee productivity in the context of service was ignored. Where the definition of employee productivity was difficult in concept and measurement.

Work autonomy

Job independence restricts the freedom of choice that workers have available during their jobs. For some organisations, workers have flexibility for setting their job schedules, and in other situations,

where workers may determine how their work will be done is also flexibility. Occupational flexibility is an significant aspect of the work, and probably the most studied professional aspect. Several experiments were conducted to investigate how separation from employment contributes to particular professional results. The search for professional freedom caught researchers 'interests because of the advantages it gives not only to individuals but also to companies. Job independence increases efficiency, and when workers are encouraged in exercising their independence at work, they feel secure in doing the work. This understanding increases the degree of native motivation and the effect of productivity at work.

Any company that desires to grow and maintain its workers needs to make clear its employees are happy. An organization with more satisfied employees appears to be more effective than unhappy workers. Happier workforces are more competitive. The intend of this research was to uncover and identify with the effect of independence from work on employee innovation and productivity in Pakistan's telecommunications industry.

Literature Review

Multi-specialization

Some basic theories give us more proof that the principle of specialization can be extended to several aspect of our lives: at the corporate level, At the level of the atmosphere Direct social; in terms of leisure time; at the level of computer science; at the level of expertise; at the intensity of the community; and lastly at the level of individuals, even for a specific skilled class.

For a significant number of citizens, there is a problem of unemployment, even though they receive a high university degree. In Pakistan, the unemployment rate was 6.140 percent in December 2019, as seen in the IMF and the world's economic forecasts. It rose in December 2018 from the last recorded 6,079 per cent figure. The poverty rate in Pakistan is projected to hit 6.457 per cent in December 2024 in the future. Man is not a computer, job stresses and job-life balance issues may also occur due to poor coordination in the workplace or because of an unexpected task or assignment at work. We agree that the physically and psychologically dimensions cannot be overlooked because work is the main task that a person undertakes during the day, and is at the core of personal identity and social roles understanding, and the condition socioeconomic. There's also social anxiety when an employee cannot function longer.

An unequal relationship is well known between the corporations and their workers. Through recognizing that the worker is attempting to preserve mental stability or escape tension and damage from co-workers, the interaction can be maximized. It is true that the greater availability of skilled professionals can lead to lower salaries and difficult conditions of employment, especially when the labor market is stagnant. Therefore, when workers lose their jobs when market demand drops and the person is unable to find a job on the market equal to the previous career because of the lack of cultural values between employers and employers. For Companies It can be challenging to have a hard time working to manage work and personal commitments, but not having a job often has serious implications for a individual. This definition can be readily grasped if we understand the most significant means of acquiring social and

economic capital is jobs and that work meets essential psychological needs [3].

Employees creativity

There is unambiguous proof of the affiliation between creativity and market accomplishment. Peter Drucker was among the first to stress this relationship and claims that creativity is the only contributor to improved market returns, but everything else about management is related to cost increases: The innovation cycle is progressively divided into two main sections, front-end innovation, where innovations are developed and back-end innovation is transformed into marketable goods. Success in innovation is a general outcomes for both parties and innovation is multidimensional, resulting from many intertwined activities [4].

The main aspects of an innovation culture can be defined as imagination, transparency and the acceptance with risk and entrepreneurship of new ideas. The intense creativity of workers at the organization leads to the ideals of the creativity community and finds itself imaginative and innovative.

Employee productivity

The need to increase workplace engagement is one of the biggest challenges facing companies today. Workplace productivity increases by workplace efficiency or by a group of employees. Honestly speaking, quality directly impacts the competitiveness of businesses. Productivity can be measured over a given phase of time through the output of employee's. This may also be measured by units of goods or services operated by an employee over a specified time. Several studies have been implemented to assess efficiency and various methods in one or two directions and the comparison of findings can be difficult. There is usually no systematic procedure for the productivity evaluation. According to Sharma & Sharma, productivity of employees depends on the time that the employee's effectively dedicated to his job, presentation or realization during his job. The previous literature discusses the advantages of efficiency for workers which would contribute to organizational success. The debate above clearly illustrates the idea of pluralism, creative culture and profitability. That demonstrates that these are the core elements of the viability and performance of an organization. The following paper discusses the various fields and their impacts on efficiency [5].

Work autonomy

Business design ideology is used by many companies that Hackmaan and Oldham found the basis for management strategies that improve productivity, enhance job efficiency and improve employee productivity, decrease in employee turnover as well as increased engagement. Autonomy is one of the many fundamental features of work design employed by many researchers. Occupational independence is characterized as the degree to which labor gives great autonomy, which establishes the choice and freedom of the worker in the scheduling of the work as well as the means to carry out the everyday jobs. In particular, it can also be characterized as the natural substitute and the opportunity to work for many tasks.

Autonomy and control are often confused so distinguishing between them is crucial. Command consists of the creation of

programs, assignments, means of operation and working conditions, while freedom consists of making better choices from continuous supervision as well as contact with the boss. In other words, sovereignty applies to a higher level of penalty for one's actions. If they are competent and willing to perform in their field, professionals will succeed, they must use a collection of information that facilitates their work and have freedom to make decision in their occupation. Independence indicates responsibility for the outcomes of the research arising from it [6].

Outcomes such as high work performance and poor self-stimulation rates argued that freedom affects working processes, the speed of work and the interpretation of goals. Individuals have the right to track job speed, control job processes and determine procedures. Employment and freedom are not the same as freelancers, who rely on interpersonal contact to perform combined functions. Working freedom leads to increased results in the workplace, as individuals believe and find themselves capable and innovative in carrying out their tasks. The theory of role changes indicates that freelancers will decide the means and ends of jobs, and the timing of activities (Figure 1).

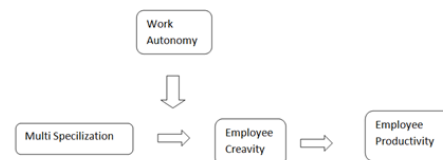


Figure 1. Theoretical framework and hypothesis.

- H1: Multi-specialization has a significant positive impact on Employees productivity.
- H2: Work Autonomy has a significant positive impact between Multi-specialization and Employees creativity.
- H3: Employees creativity has a significant positive impact on Employees productivity.

Methodology

To clarify the current multi-disciplinary definition and its possible effect on worker we used a self-administrative survey questionnaire to collect data. This is a quantitative based study to obtain relevant data from the respondents. From previous research the scale has been adapted to make sure that the respondent be able to perfectly realize it and apply it to the circumstance of this report. The literature listed above also studies several disciplines focused on employee innovation in order to increase employee productivity. All measurements were calculated using a multi-specialization scale, Employee creativity, and employee efficiency Job autonomy. All the elements were measured at five points Likert scale from "1=strongly disagree" to "5=strongly agree". The residents of this study indicated that workers are involved in multiple tasks operating in the telecommunications industry in Pakistan [7].

Quantitative research

This analysis was quantitative as data were extracted from respondents using questionnaires, then data were examined on SPSS. The quantitative analysis aims at seeking the answer to a

query by analyzing quantitative facts, i.e. the information found in figures and numbers.

Cross sectional study

This analysis was cross-sectional in design as facts was obtained from responders just once, and then analysed using SPSS.

Population

The focus of this study was telecommunications sector employees in the city of i.e. Multan, Bahawalpur, Lahore, Karachi and Sahiwal, the Pakistan cities. Only the Telecom workers were included in this report.

Procedure

The data collected by means of a research Self administrative survey and an online test questionnaire.. Each of them was told that the data is confidential.

Sampling technique

The purposive sampling method was used for this analysis and the questionnaire was delivered to the employees of the Telecom industry.

Sample size

We were collected data from 305 respondents. The data will be gathered through online and self-administrative survey questionnaires. In this study, we used purposive sampling.

Instruments

Demographics: Gender, age, and academic qualification were included in the demographics section.

Multi-specialization: The scale was introduced for the Multi-specialization calculation. Questionnaire was based on a 5-point scale i.e.(strongly disagree to strongly agree).

Employees creativity: The scale of was adopted for calculation of employee creativity. Questionnaire was based on five point likert scale i.e. (strongly disagree strongly agree).

Employees productivity: Chen and Tjosvold scale were followed for the assessment of employee productivity. The questionnaire was based on a 5-point likert scale i.e.(strongly disagree to strongly agree).

Work autonomy: The scale of was introduced for assessment of work autonomy. Questionnaire was based on a 5-point likert scale, i.e.(strongly disagree to strongly agree).

Analysis

Respondent profile

The findings of the profile of respondents are listed in table 1. As can be seen in the table, 247 (81%) of the participants are male while 58 (19%) are female. On age profile, a majority of respondents (32.5

percent) belong to the 26-30 age group, followed by the 20-25 age group identified by 26.6 percent. Those whose ages ranged from 31-35 years constituted 22.3 percent of the overall number, 36-40 were 12.8 percent of the total, and just 18 (5.9 percent) were 41 years and older. As far as education is concerned, this study has 42 (13.8%) under graduates employees, 156 (51.1%) graduate employees, 107 (35.1%) with M.phil / MS degrees (Table 1).

Category		Frequency	Percent
Gender	Male	247	81
	Female	58	19
Total		305	100
Age	20 – 25 years	81	26.6
	26 – 30 years	99	32.5
	31 – 35 years	68	22.3
	36 – 40 years	39	12.8
	41years and above	18	5.9
Education	Undergraduate	42	13.8
	Graduate	156	51.1
	M.phil/M.S	107	35.1

Table 1. Respondent profile.

Reliability analysis

In addition, reliability analysis was performed using the Cronbach alpha on all variables. The results showed that the alpha values for the Cronbach range from 0.755 to 0.818 are adequate.

In particular, employee creativity reached an alpha value of 0.818 for a Cronbach. Work autonomy Cronbach's alpha value was stated 0.780; multi-specialization was (0.765), and likewise, employee productivity reported an alpha value of 0.755 for a Cronbach. It can therefore be inferred that the Cronbach's alpha values for all variables are appropriate and meet the minimum necessity as stated by Pallant in 2007.

Factor analysis

The KMO and Bartlett's test results show that the data is significant. KMO (0.776>0.7) and significance value was (.000<0.5) respectively, Factor analysis was also carried out on all factors to make sure that each set of products is assessing what they are intended to be measuring.

It was also carried out to guarantee the validity of the convergent material. As all the steps have been modified from earlier studies. The assessment method was performed using SPSS through the measuring model which encompasses all items in one model combined. O

The conclusion showed that the loading factor for all products was above from (0.4). Depending on these tests, it can be assumed by

Hair, indicated that all products obtained the desired value. Therefore, factor assessment for all structures is sufficient.

Regression analysis

Regression analysis of multi-specialization and employees productivity: Model summary – Multi-specialization (Table 2- Table 4).

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.540a	0.292	0.289	0.70725	1.255
Predictors: (Constant), MS					
Dependent Variable: EP					

Table 2. Model summary.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62.403	1	62.403	124.755	.000b
	Residual	151.562	303	0.5		
	Total	213.965	304			

a. Dependent Variable: EP

b. Predictors: (Constant), MS

Table 3. ANOVA results-multi-specialization.

Coefficients ^a					
Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error	Beta	
1	(Constant)	1.241	0.19	6.539	0
	MS	0.651	0.058	0.54	0

a. Dependent Variable: EP

Table 4. Regression coefficients-multi-specialization.

The model overview indicates that the 29 per cent differences arise due to multi-specialization in the productivity of employees. The ANOVA table indicates the overall significance of the model as P value (.000<0.05), indicating the model is significant. Therefore, the H1 agrees that the multi-specialization has a positive effect on the productivity of employee's. From the table of the coefficient the equation for regression becomes;

$$\text{Employee productivity} = 1.241 + 0.651 * \text{multi-specialization}.$$

Regression analysis of employee creativity and employee productivity

The model review reveals that the improvements of 9 percent are satisfied in employee productivity due to the innovation of the employee. The ANOVA table displays the model's overall importance as the P value (.000<0.05) which means the model is important. And

the H3 recognizes that the innovation of workers has a positive effect on the productivity of employee's.

Moderation regression analysis

The first portion of performance involves employee creativity (M) regression on job autonomy, multi-specialization and their engagement. The relationship between multi-specialization and autonomy of work was statistically important in this regard ($b = -0.1659$, $s.e = .575$, $p = 0.0042$). Suggesting that job autonomy improves the effects of multi-specialization and creativity among employees.

Conditional effects of the focal predictor at values of the moderator(s): At -1SD on work autonomy, the effect was positive and significant ($b = .4309$, $s.e = .0605$, $p < 0.001$). At mean of work autonomy, the effect of multi-specialization was positive and significant ($b = .2380$, $s.e = .0426$, $p < 0.001$). At +1SD of work autonomy, multi-specialization was a significant positive predictor ($b = .1352$, $s.e = .0501$, $p = 0.0074$).

Now see the slopes are becoming positive as move from low to high work autonomy. Let's see the slopes of plots to visualize the interactions (Figure 2).

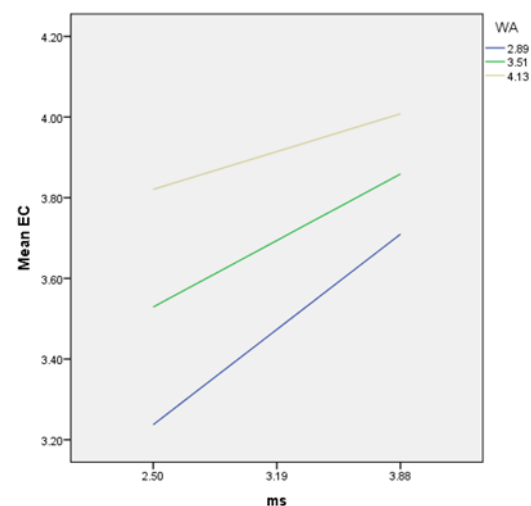


Figure 2. Regression of employee productivity.

Regression of employee productivity

The portion of output contains the regression of employee productivity onto multi-specialization(x) and employee creativity (M). Both MS and EC were positive and significant predictors of employee productivity. (both p 's < 0.001).

Conditional indirect effects of X on Y: This portion of the performance offers an omnibus check of the indirect conditional effects expressed in the x-on-y moderated mediation index. That shows that the not direct effect of multi-specialization on employee's productivity is significantly moderated by work autonomy. All three have positive and major indirect effects.

Pairwise contrasts between conditional indirect effects (Effect1 minus Effect2): The difference between the IE at the mean of moderator is statistically significant (Table 5).

Hypothesis		Sd. Beta	S.E.	Pvalue	Results
H1	Multi-specialization has a significant positive relationship with Employees productivity .	0.54		0	Yes
H2	Work Autonomy has a significant positive relationship between Multi-specialization and Employees creativity.	0.88	0.575	0	Yes
H3	Employees creativity has a significant positive relationship with Employees productivity .	0.3		0	Yes

Table 5. Hypothesis.

Discussion and Conclusion

The goal of this reading was to research the impact of multi specializations on employees productivity in Pakistan's telecom industry. The findings show that various categories have a major positive influence on the productivity of the workers. We also see that creativity and autonomy of workers at work have great positive influences on employee's productivity. The finding is confirmed by prior research that indicates that multi tasking plays a significant role in the productivity of employees. Marcus and Sridavi have shown that workers who are not occupied in their workplace are more likely to spend their time on low-priority activities and be unsuccessful to demonstrate their complete dedication to their assignments. In addition, multiple studies have shown that workers recruited appear to display emotional commitment to higher jobs and efficiency.

This research typically offers proofs that multi-specialization has a considerable positive control on productivity of the employees. Employers must therefore focus sufficiently on multi-specialization and regularly examine their employees' improvement to ensure their organisations are well-being. Additionally, employers in all telecommunications industries are urged to regularly perform regular surveys to recognize their employees' level of specialization and their comfort with the workplace environment. Such exercises will enable them to develop suitable strategies to resolve any problem. Talent recruitment, for example, is a successful technique to guarantee efficient recruitment. Additionally, sufficient services, including

financial, human or material resources, must be given to improve the efficiency of employees. Business owners are also advised to follow a two-way communication policy among themselves and their workers to permit the employee's to communicate various opinions regarding his job and whichever issue that can threaten his productivity. With such a sound, workers are thought to be more interested in their jobs and to have more desire to be successful.

Limitations

While the current study presented some meaningful information on the cause-and-effect interaction among multi-specialization and productivity of employees, it should be recognized that there are limitations and recommendations for future studies. Firstly, in a few cities in Punjab, Pakistan, participants in this study are confined to the telecom industry. In other industrial contexts, this may impede the generalization of the findings of this analysis. Future studies will therefore imitate this study by interviewing employee's from various industry with bigger measurements. And second this research was based on a cross-sectional design, using by online and self administrative survey method to collect data from respondents. Despite this constraint, it is proposed that future research into the productivity history of employees using longitudinal study frameworks and strategies. Ultimately, this report analyzed only one period of employee productivity and thus proposed a potential research to check the consequence of other HR activities on employee's productivity, and such as work specialty and governing approach.

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