

## **Managerial Competencies and Demographic Characteristics: A Study on Middle-level Disaster Management professionals of Delhi.**

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### **Abstract**

***Purpose-** The purpose of the research is to explore relationship between managerial competencies and demographic characteristics of professionals at mid-managerial level in Disaster Management sector in Delhi.*

***Design/Methodology/approach-** To address the primary aim, a questionnaire is constructed based on the review of literature, appreciative inquiry, and focus group discussions. The sample size of the respondents is 52. For this study, simple random sampling was adopted. The research design includes exploration of the competencies required by the Disaster Management professionals followed by a descriptive research design for designing the characteristics of all the identified variables. Data from the questionnaires were coded and entered accordingly into the SPSS statistical software.*

***Findings-** The results revealed that there exists a significant difference in the competencies of the Disaster Management Professionals in relation to demographic variables working at mid-managerial level in Delhi.*

***Research limitations/implications-** The study was conducted with a small sample size with the respondents based in Delhi only that also on a few important managerial competencies.*

***Practical implications-** The present empirical study should help focus on the competency models for selection, training, and performance management of the disaster management professionals in Delhi.*

***Originality /value-** The study is the first of its type to the author's knowledge exploring about relationship between demographics and competencies possessed by the mid managerial level disaster management professionals in Delhi.*

***Keywords** Managerial competencies, Disaster management professionals, competency mapping, demographics*

### **Introduction**

Competency is defined as the skill set to accomplish an assigned work in a perfect way. The skill sets may be pre-defined at the time of assigning the job or may be acquired in the process of accomplishing the job. Competency, however, is more than simply acquiring the predefined or gradually developed set of skill set to accomplish the job.

Competency in the form of personal traits is the zeal and enthusiasm of a person which drives him or her to achieve the stated objectives and desired goals associated with the timely and efficient accomplishment of the assigned task to that person. Competency in the form of behavioral traits is the interaction skills, communication skills, self-presentation skills that help to enhance the individual performance in parallel to achieve the organization's objectives. Competency when functional is well defined and specifies very clearly the expectations associated with the job. In other words, Competency is the capacity of an individual for developing the adequate knowledge, skills, and attitude for performing a task/ roles and responsibilities in most efficient and effective manner.

Klemp (1980) defined competencies as underlying characteristics of a personnel which results in effective and /or improved performance on the job.

Competency Mapping may be defined as the process of identifying competencies of an individual or groups of individuals in relation to the job requirements. Mapping of competencies thus discovers an individual's strength and weaknesses with a view to helps to realize and understand the way forward to improve the efficiency and proficiency in attaining the assigned tasks and responsibilities and also guides about the career development efforts that are required to be pursued.

Core Competency is defined as the individual's inherent capability, critical to the success of any business or organization. This is the competency that most of the individuals are required to possess essentially for performing the job efficiently. Thus, core competencies are not fixed and change with the requirement with respect to the demand of the job, roles, and responsibilities.

## **RATIONALE BEHIND STUDY**

As per the Disaster Management Act 2005, a disaster is an occurrence of a sudden event disrupting the normal conditions of existence and causing a level of suffering that exceeds the capacity of adjustment of the affected community. Disasters knows no boundaries, Disasters occur rapidly, instantaneously and indiscriminately. The disasters cause severe damage to the mankind and resources and economy of the country, it is important to have a self-sufficient and efficient disaster management system to minimize the impact of disasters. Delhi has been a vulnerable region in view of Seismic activities and categorized as zone IV. Delhi is also a city hosting various government and intergovernmental as well as international organizations working in the Disaster management field supported by the disaster management professionals. Therefore, it is also important for the disaster management professionals to possess adequate competencies to fit in the roles and responsibilities.

The professionals working at the mid managerial level in the disaster management field perform a very crucial role in the management of disasters in all phases. In other words, the disaster management experts act as the main agent to implement the policies and plans to mitigate the impact of disasters in the region. Consequently, it becomes imperative to have Disaster Management professionals and experts with adequate competencies both technical and managerial. It is also vital to have professionals with required knowledge, skills and attitude to perform their duties and responsibilities, well.

Thus, understanding the need to have adequate and appropriate competencies to alleviate the effects of disasters, it becomes important to have a good qualified, skillful, and competent disaster management force in place. It has been observed that while Disaster management professionals with different demographics works differently and produces effective results, hence it also becomes important to study the impact of demographic on the competencies of the mid-managerial level Disaster Management professionals. Henceforth, in this background, the need for conducting current research for identifying the competency gap and examining its impact on overall job performance is felt.

## **CONCEPTUAL BACKGROUND AND REVIEW OF LITERATURE**

A competency is an individual's characteristics which include skills, knowledge, personal traits, attitude and motive that leads to the desired behavior leading to the remarkable performance. McClelland (1975) explained that competencies are key predictors of an individual's performance and achievement. Boyatzis R.E. (1982; 2002), emphasizes that competence is an underlying characteristic of an individual's skills, motives, traits, abilities and knowledge that can be applied.

According to Hogg B (1989) competencies are the qualities of a manager that lead to the display of the skills and abilities which results in effective and successful performance within an occupational domain. Yuvaraj (2011) emphasizes that competency mapping is one of the most accurate technique used commonly for identifying the job-related behaviors in an organization. Parry (1996) explains that the competency is a bunch of the related knowledge, skills, attitude and personal characteristics that influences major components of one's job which correlates with the performance on the job and can be improved via training and development. A competency is a critical characteristic of an individual that is correlated with the criterion – referenced effective and/or improved performance in a job or condition. Suguna et al., (2013), in their study on "competency mapping of employees in Garment Firms in Tirupur District", assessed the purpose of competency mapping and how it

impacts the overall performance of the organization. The results of the study revealed that there is a direct correlation of the overall performance of the organization and with the existing competencies. Many organizations have their developed varying models for competency to help them to identify the essential skills, knowledge and characters required for excellent performance in a job aligned with these strategies and integrating it to the HR strategies (Sanghi 2012). Thus, competency mapping establishes the extent to which the several competencies connected with a job are possessed by an employee and the performance. Jabbar et al (2011) in their study “A Study on effect of demographic factors on the achievement of secondary school students in the Punjab, Pakistan” revealed that the demographic factors have significant relationship with the students’ achievement. Robert (2012) explored that Competency based selection method is strong, organized, and comprehensive way of selecting and sustaining the best fit for the organization. Candidates are evaluated based on the competencies they need to display, when inducted into the organization. Performance management competency system diagnoses the future training and development needs of the employees and it helps HR department to support the employees in taking decisions like promotions and transfers.

Solomon (2013) in his study on competency mapping has tried to explore the level of competencies prevailing among the executives of public sector. The results of the study indicate that approximately half of the respondents have moderate level of managerial HR and general competencies. Johri, (2014), in his study on “Competency Mapping as a Strategic HR Tool in Manufacturing Industry: An Empirical Study”, attempted to explore how competency mapping process is used strategically by the organizations to achieve desired results and dedication by the employees.

Najafi et al., (2015) in their study “Demographic determinants of Disaster Preparedness Behaviors (DPB) amongst Tehran Inhabitants, Iran” revealed monthly income level, previous disaster experience, residential, district and occupation are demographic factors that influence DPB substantially. However, disaster preparedness was not influenced by gender, educational level, number of household members, home type, home ownership and being the head of household etc.

Gallardo et al (2015) in their research “Core Competencies in Disaster Management and Humanitarian Assistance: A Systematic Review” revealed that disaster response requires a workforce with varied professional disciplines, subspecialty categories, and levels of professional experience and cultural expertise irrespective of their professional background, education for

personnel operating in disaster situations should be based on the acquisition of task-related, profession-specific, and cross-disciplinary competencies.

Disaster affects millions of people's lives, cause huge economic losses as well as health and quality of life, hence improved awareness and consciousness about disasters can be lifesaving and moreover the education of the disaster professionals is particularly more important where disasters are recurrent and experienced severely and intensely (Ozputat, et al., 2018).

According to Brown et al (2018), the attitudes, perceptions, and behavior of the Disaster management professionals toward any disasters can be affected by the exposure to and experience with such events.

Li et al (2019) in their study "Disaster response knowledge and its social determinants: A cross-sectional study in Beijing, China" explored that people who lived in peri urban and urban areas or with less education are less prepared and hence low disaster preparedness and response level, therefore required adequate attention.

Gillani et al (2020) in their research "Evaluation of Disaster Medicine Preparedness among Healthcare Profession Students: A Cross Sectional Study in Pakistan" observed that the demographic factors like age, gender, university, academic year have moderate to high impact on the knowledge, attitude and readiness to practice of the healthcare profession students in universities in Pakistan. The study was carried on 310 disaster management students from different universities. The cross-sectional study was conducted by using a pretested and validated self-administered disaster medicine and preparedness questionnaire which was administered among the students as per the researcher's convenience. The results of the study strongly led to believe that educators and health policymakers should build a strong curriculum in disaster medicine management and preparedness to prepare competent future healthcare professionals.

A study conducted by Erfani et al (2020) titled "Knowledge, Attitude and Practice toward the Novel Coronavirus (COVID-19) Outbreak: A Population-Based Survey in Iran" revealed that the demographic factors like gender, age, occupation, marital status, education, living place, and the number of individuals living together have a direct impact on the knowledge, attitude and practice toward the Novel Coronavirus (COVID-19) Outbreak.

In the light of review of literature, it is established that demographics is also one of the important factors affecting competencies of the professionals. Although there are studies indicating the role of demographics on competencies, however, more studies are required to shed more light on all aspects

of this issue. On the other hand, the role of some demographic factors in disaster management competencies is still unclear. Therefore, it is important to identify the effect(s) of demographic factors like gender, age, marital status, income, education, and length of service on the competencies of the disaster management professionals.

### **RESEARCH OBJECTIVES**

- (i) To identify the job-related competencies of the mid-managerial level Disaster Management professional in Delhi.
- (ii) To measure the actual competencies of the mid-managerial level Disaster Management professional in Delhi.
- (iii) To examine the difference among various categories of different employee demographics on employee competencies at mid-managerial level Disaster Management professional in Delhi.
- (iv) To identify and propose the training needs based on the competency gaps for mid-managerial level Disaster Management professional in Delhi.

### **RESEARCH METHODOLOGY**

The present research is aimed to identify the job-related competencies of the Disaster Management professionals. Further it is also intended to study and examine the difference among various categories of the Disaster management professional's demographics on their competencies and explore the gap between the required competence level and existing competence level. In addition, it is aimed to identify and propose the training needs based on the competency gaps identified for Disaster Management professionals at mid-managerial level.

For achieving the objectives of the research, the study has been conducted on the mid-managerial level Disaster Management professionals in Delhi.

A total 52 Disaster Management professionals of mid managerial level participated in the study.

### **RESEARCH DESIGN**

The present research is based on the multiple research designs at various levels of research process. The first stage includes the exploration of the competencies required by the Disaster Management professionals. Later, a descriptive research design has been used for designing the characteristics of all the identified variables.

## SAMPLING METHODOLOGY

**Sampling Method-** The sampling method used for collecting the data pertaining to Disaster Management professionals at mid-level is Simple Random Sampling.

**Sampling Size-** A sample of 52 Disaster Management Professionals is taken from a population of approximate 90 mid-level managerial positions in the Disaster Management sector in Delhi.

The sample composed of Disaster Management professionals from various organizations working in the field of Disaster Management in Delhi which include DDMA's; NDMA; NIDM; Delhi Fire Service, Civil Defence etc.

S.No.	Demographic Variable	Frequency	(%)
<b>1</b>	<b>Gender</b>		
	Male	40	77
	Female	12	23
<b>2</b>	<b>Age</b>		
	20 – 30 years	10	19
	31 – 40 years	30	58
	Above 40 years	12	23
<b>3</b>	<b>Marital Status</b>		
	Married	38	73
	Unmarried	14	27
<b>4</b>	<b>Educational Qualification</b>		
	Graduate	14	27
	PG	22	42
	Diploma	11	21
	PhD	5	10
<b>5.</b>	<b>Length of Service</b>		
	1-5 years	6	12
	6-10 years	19	36
	above 10 years	27	52

## RESEARCH INSTRUMENT

A questionnaire was constructed based on the review of literature, appreciative inquiry and focus group discussions with the Disaster Management experts and heads of the Disaster Management Divisions. Majority items were adapted from the focus group discussions. The items were refined and modified to ensure clarity and understandability with the support of the Senior level

professionals working in the Disaster management. The questionnaire was pretested for psychometric properties before administering for final survey.

By initiating the discussions with the heads /supervisors of the related Disaster Management professionals, the skills /generic competencies (KSA) to perform the regular duties were collected and compiled in the form of a questionnaire. The questionnaire is divided into three sections viz., Section I -Demographic Profile, Section II- Managerial Competencies and Section III- Task Performance

The job-related Managerial Competencies and task performance are measured using a Five-Point Likert Scale

- 5 - Strongly Agree
- 4 - Agree
- 3 - Neither Agree nor Disagree
- 2 - Disagree
- 1 - Strongly Disagree

<b>Table 2: Dimensions in Managerial Competencies</b>		
<b>S. No.</b>	<b>Dimensions</b>	<b>Number of items</b>
<b>1</b>	Judgement Competencies	<b>6</b>
<b>2</b>	Initiative Competencies	<b>6</b>
<b>3</b>	Leadership Competencies	<b>5</b>
<b>4</b>	Planning & Organizing Competencies	<b>6</b>
<b>5</b>	Problem Solving Competencies	<b>5</b>
	<b>Managerial competencies</b>	<b>28</b>

### **DATA COLLECTION**

The primary data have been collected from the mid managerial staff working in the Disaster Management sector. The questionnaire was administered to Disaster Management professionals in-person and all the questionnaires were filled up voluntarily by the respondents in the presence of the researcher. So, all clarification and explanation required by the respondents were tackled on the spot. Descriptive analyses were conducted to provide the mean and standard deviation. A total of 52 response from the professionals were included for analysis.



## DATA ANALYSIS TOOLS

The data collected through the structured questionnaire have been analyzed by using the following statistical tools from statistical tool from IBMSPSS 22.0

- Factor Analysis has been used for reducing the 28 items 5 dimensions for managerial competencies.
- Inferential standard tools like t-test, ANOVA.

## RESEARCH HYPOTHESIS

**H0** There is no significant difference between/amongst various categories of different demographic characteristics regarding mid-level managerial competencies of Disaster Management Professional.

## TEST HYPOTHESIS

**H1** There is significant difference between male and female employees in context of the managerial competencies of Disaster Management Professional

**H2** There is significant difference between married and unmarried employees in context of the managerial competencies of Disaster Management Professional.

**H3** There is significant difference among various employee age groups in context of the managerial competencies of Disaster Management Professional

**H4** There is significant difference among various categories of length of service in context of the managerial competencies of Disaster Management Professional

**H5** There is significant difference among various categories of educational qualification in context of the managerial competencies of Disaster Management Professional

## DATA ANALYSIS AND FINDINGS

**The findings have been mentioned here based on the hypotheses framed**

**H0:** There is no significant difference between male and female employees with context of mid-managerial competencies of Disaster Management Professionals

**H1** There is difference between male and female employees with context of mid-managerial competencies of Disaster Management Professionals

<b>Table 3</b> <b>Independent sample t-test</b> <b>(for assessing difference between male and female employees with context of mid-managerial competencies of Disaster Management Professionals)</b>					
<b>Group</b>					

<b>Statistics</b>					
	<b>Gender</b>	<b>Mean</b>	<b>t</b>	<b>p-value</b>	<b>Result</b>
Judgement Competencies	<b>Male</b>	<b>4.0160</b>			<b>Significant</b>
	<b>Female</b>	<b>3.4558</b>	<b>2.597</b>	<b>0.012</b>	
Initiative Competencies	<b>Male</b>	<b>3.9990</b>			<b>Significant</b>
	<b>Female</b>	<b>3.5543</b>	<b>2.260</b>	<b>0.025</b>	
Leadership Competencies	<b>Male</b>	<b>4.7104</b>			<b>Significant</b>
	<b>Female</b>	<b>4.3953</b>	<b>1.755</b>	<b>0.043</b>	
Planning & Organizing Competencies	<b>Male</b>	<b>4.0164</b>			<b>Significant</b>
	<b>Female</b>	<b>3.4767</b>	<b>2.354</b>	<b>0.005</b>	
Problem Solving Competencies	<b>Male</b>	<b>4.1963</b>			<b>Significant</b>
	<b>Female</b>	<b>4.4233</b>	<b>-2.224</b>	<b>0.028</b>	

Table 3 depicts that there is a significant difference between male and female in context of the managerial competencies of Disaster Management Professionals, more specifically-Judgement (2.597) Initiative (2.260), Planning and Organizing (2.354), Problem solving (-2.224) and Leadership Quality (1.755). Therefore, the null hypothesis is rejected. Hence, there is significant difference between male and female with regard to the managerial competencies of Disaster Management Professionals.

**H0** There is no significant difference between married and unmarried employees in context of the managerial competencies of Disaster Management Professional.

**H2** There is difference between married and unmarried employees (marital status) with to regard to the Managerial Competencies

<b>Table 4</b>					
<b>Independent sample t-test</b>					
<b>(for assessing difference between married and unmarried employees (marital status) with context of mid-managerial competencies of Disaster Management Professionals)</b>					
<b>Group Statistics</b>					
	<b>Marital Status</b>	<b>Mean</b>	<b>t</b>	<b>p-value</b>	<b>Result</b>
Judgement Competencies	<b>Married</b>	<b>3.7333</b>	<b>-2.921</b>		<b>Significant</b>
	<b>Unmarried</b>	<b>4.2353</b>		<b>0.006</b>	
Initiative	<b>Married</b>	<b>3.8128</b>	<b>-1.613</b>		<b>Not</b>

Competencies					<b>Significant</b>
	<b>Unmarried</b>	<b>4.0956</b>		<b>0.109</b>	
Leadership Competencies	<b>Married</b>	<b>4.5565</b>	<b>-2.083</b>		<b>Significant</b>
	<b>Unmarried</b>	<b>4.8235</b>		<b>0.047</b>	
Planning & Organizing Competencies	<b>Married</b>	<b>3.8152</b>	<b>-1.599</b>		<b>Not Significant</b>
	<b>Unmarried</b>	<b>4.0833</b>		<b>0.111</b>	
Problem Solving Competencies	<b>Married</b>	<b>4.3739</b>	<b>2.675</b>		<b>Significant</b>
	<b>Unmarried</b>	<b>3.9794</b>		<b>0.003</b>	

Table 4 reflects that there is significant difference between married and unmarried employees regarding the managerial competencies of Disaster Management Professionals at mid-level such as Judgement (-2.921), Problem Solving (2.675) and Leadership Quality (-2.083). There is no significant difference between married and unmarried employees with regard to managerial competencies such as with Initiative (-1.613) and Planning and Organizing (-1.599). Therefore, the null hypothesis is rejected.

**H0** There is no significant difference among different employee age groups in context of the managerial competencies of Disaster Management Professional

**H3** There is difference among /between different employee different age groups in context of the managerial competencies of Disaster Management Professional.

<b>Table 5</b>						
<b>Analysis of Variance</b>						
<b>(for assessing difference among /between different employee different age groups with context of mid-managerial competencies of Disaster Management Professionals)</b>						
<b>Managerial Competencies</b>		<b>Sum of Squares</b>	<b>Df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Judgement Competencies	Between Groups	24.443	2	12.221	8.420	0.000
	Within Groups	294.657	203	1.452		
	Total	319.100	205			
Initiative Competencies	Between Groups	6.923	2	3.462	2.625	0.075
	Within Groups	267.707	203	1.319		
	Total	274.630	205			
Leadership Competencies	Between Groups	18.323	2	9.162	12.315	0.000

s	Within Groups	151.026	203	0.744		
	Total	169.349	205			
Planning & Organizing Competencies	Between Groups	1.545	2	0.773	0.596	0.552
	Within Groups	262.907	203	1.295		
	Total	264.452	205			
Problem Solving Competencies	Between Groups	7.282	2	3.641	4.616	0.011
	Within Groups	160.125	203	0.789		
	Total	167.407	205			

Table 5 indicates from the output of ANOVA, it is inferred that there is a statistically significant difference between various categories of age with regard to managerial competencies like Judgement (F=8.420, Sig. 0.000), Problem Solving (F=4.616, Sig. 0.011) and Leadership Quality (F=12.315, Sig. 0.000) hence null hypothesis rejected whereas for Initiative (F= 2.625, Sig.0.075) and Planning and Organizing (F: 0.596, Sig. 0.552) there is no significant difference therefore null hypothesis is accepted

**H0** There is no significant difference among various categories of length of service in context of the managerial competencies.

**H4** There is difference among various categories of length of service in context of the managerial competencies of Disaster Management Professional

<b>Table 6</b> <b>Analysis of Variance</b> <b>(for assessing difference among various categories of length of service with context of mid-managerial competencies of Disaster Management Professionals)</b>						
Managerial Competencies		Sum of Squares	Df	Mean Square	F	Sig.
Judgement Competencies	Between Groups	24.443	2	12.221	8.420	0.000
	Within Groups	294.657	203	1.452		
	Total	319.100	205			
Initiative Competencies	Between Groups	6.923	2	3.462	2.625	0.075
	Within Groups	267.707	203	1.319		
	Total	274.630	205			

Leadership Competencies	Between Groups	18.323	2	9.162	12.315	0.000
	Within Groups	151.026	203	0.744		
	Total	169.349	205			
Planning & Organizing Competencies	Between Groups	1.545	2	0.773	0.596	0.552
	Within Groups	262.907	203	1.295		
	Total	264.452	205			
Problem Solving Competencies	Between Groups	7.282	2	3.641	4.616	0.011
	Within Groups	160.125	203	0.789		
	Total	167.407	205			

Table 6 shows that there is no significant difference between length of service and the managerial competencies such as Initiative (F=1.612, Sig. 0.202), Planning and Organizing (F=1.941, Sig. 0.146), Problem Solving (F=0.600, Sig. 0.550), and Leadership Quality (F=0.174, Sig. 0.840) is not significant and hence the null hypothesis is accepted. There is significant difference between length of service and managerial competency i.e., Judgement (F=7.633, Sig. 0.001) hence null hypothesis is rejected.

**H0** There is no significant difference among various categories of educational qualification in context of the managerial competencies of Disaster Management Professionals.

**H5** There is significant difference among various categories of educational qualification in context of the managerial competencies of Disaster Management Professionals

<b>Table 7</b> <b>Analysis of Variance</b> <b>(for assessing difference among various categories of educational qualification with context of mid-managerial competencies of Disaster Management Professionals)</b>						
Managerial Competencies		Sum of Squares	Df	Mean Square	F	Sig.
Judgement Competencies	Between Groups	26.883	3	8.961	6.194	.000
	Within Groups	292.217	202	1.447		
	Total	319.100	205			
Initiative	Between	5.495	3	1.832	1.375	.252

Competencies	Groups					
	Within Groups	269.135	202	1.332		
	Total	274.630	205			
Leadership Competencies	Between Groups	27.853 3	3	9.284	13.254	.000
	Within Groups	141.496	202	.700		
	Total	169.349	205			
Planning & Organizing Competencies	Between Groups	28.747	3	9.582	8.212	.000
	Within Groups	235.704	202	1.167		
	Total	264.452	205			
Problem Solving Competencies	Between Groups	1.007	3	3.336	.407	.748
	Within Groups	166.400	202	.824		
	Total	167.407	205			

Table 7 reflects that there is significant difference among various categories of educational qualification of the respondents with regard to the mid-level managerial competencies which reveals the variables Judgement (F=6.194, Sig. 0.00), Planning and Organizing (F=8.212, Sig. 0.000) and finally the Leadership Quality (F=13.254, Sig. 0.000), is found to be significant level and hence the null hypothesis is rejected. Further, there is no significant difference among various categories of educational qualification of the respondents with regard to managerial competencies in which the dimensions such as Initiative (F=1.375, Sig. 0.252) and Problem Solving (F = 4.471, Sig. 0.748) is found to be not significant and the null hypothesis is accepted.

## DISCUSSION

The study was designed to empirically explore the effect of demographic factors on the competencies of mid-managerial level Disaster Management professional in Delhi. The objectives of the study were (a) to identify the job-related competencies of the mid-managerial level Disaster Management professional in Delhi. (b) to measure the actual competencies of the mid-managerial level Disaster Management professional in Delhi (c) to examine the difference among various categories of different employee demographics on competencies at mid-managerial level Disaster Management professional in Delhi. (d) to identify the competency gaps and propose the training needs to enhance and update competencies of mid-managerial level Disaster Management professional in Delhi.

From the results of the hypotheses tests, it can be concluded that there are five factors extracted from the 28 variables relating to mid-managerial competencies which are explaining about 70.613 percent of the variance. From the factor analysis, the managerial competencies were grouped into five sub-group competencies they are Initiative Competencies, Judgement Competencies, Leadership Competencies, Planning & Organizing Competencies and Problem-Solving Competencies. It is inferred from the reliability analysis with respect to initiative the Cronbach's Alpha was found to be 0.885, as far as judgment is concerned the Cronbach's Alpha was found to be 0.810 followed by Planning and Organization, Cronbach's 0.889, Problem Solving, Cronbach's 0.939 and finally with respect to Leadership Quality the Cronbach's 0.710.

All the null hypotheses formulated for the study were rejected and showed that demographic factors and competencies of the mid-managerial level Disaster Management professionals have significant relationship with the management of disasters in Delhi.

The generalized findings showed that in all mid-managerial level Disaster Management professionals, there was a significant correlation between their competencies and demographic factors like gender, age, marital status, educational qualification, and length of service. Data analysis indicated that there was a definite association of the competencies of mid-managerial level Disaster Management professionals to the demographic factors like gender, age, marital status, educational qualification, and length of service of them. The study revealed that there was significant difference between male and female disaster management professionals with regard to their managerial competencies like Initiative, Judgement, Leadership, Planning & Organizing and Problem-Solving Competencies indicating that male managers are more competent than their counterparts. The documented evidence also suggests that male managers are more effective/competent than their female counterparts (Carroll, 2006; Eagly, Makhijani, & Klonsky, 1992). Consistent with this body of literature, the present research also indicated a positive relationship establishing that male managers are more competent than their female counterparts.

Amongst the respondents of the collected data, 73% were married while remaining 27% were unmarried. The results of the t-test clearly indicated that at middle-level management, there existed a significant difference for Leadership, judgment and problem solving competencies of married and unmarried employees revealing different level of competencies possessed by married and unmarried employees while no such significant difference was found between married and

unmarried employees with regard to managerial competencies of Initiative and Planning and Organizing.

As per data collected from disaster management professionals, 19% of the respondents belonged to the age group of 20-30 years followed by 58% of the respondents from the age group of 31-40 years and 23% respondents are above 40 years age. According to Khorram- Manesh (2017), youth are our future assets in Emergency and Disaster Management. Young people who participated in various risk management and risk reduction programs have displayed better knowledge and understandings on security issues and measures. They have also actively fostered a better preparedness in their surroundings and home environment. Anova has been conducted to find out the significant difference of the data as compared with the age of overall performance of disaster management professions. It was found that there was significant difference in competency level of mid-managerial competencies like Judgement, Problem solving and Leadership among various categories of the respondents with varied age groups and hence the null hypothesis was accepted. However, no significant difference existed among various categories of respondents with competencies like Initiative and Planning & organizing regarding the managerial competencies and the null hypothesis was rejected.

Educational qualification data revealed that out of the total number of respondents, 27% of the respondents were graduate, 42% of respondents were post graduate; 21% were diploma holders in disaster management and only 10% were doctorates. It was found that there was significant difference in competency level of mid-managerial competencies like Judgement, Planning and Organizing and Leadership among various categories of the respondents with varied educational qualifications and hence the null hypothesis is accepted. However, no significant difference existed among various categories of respondents with varied educational qualification regarding the managerial competencies in which the dimensions such as Initiative and Problem Solving were found to be not significant and the null hypothesis was accepted. The overall results revealed that educational qualification of the professionals effected the judgement, planning and organizing and leadership skills and directly proportional to the educational qualifications which means that the employees with higher qualification possessed high level of competencies. This finding corresponded to the findings of Ng and Feldman, (2009) who found that higher education improves the job performance of people and hence the competencies and with the results of the research



conducted by Ishola et.al. (2018) in which it was found that employees with higher academic qualification reported higher job performance. Null hypothesis accepted

Results from the data analysis clearly revealed that there is no significant relationship between the length of service and the managerial competencies like initiative, planning and organizing, problem solving, and leadership competencies hence null hypothesis is accepted. Results also revealed that managerial competency like judgement is dependent on length of service and null hypothesis is rejected. Same is also confirmed in the study conducted by Ishola et.al. (2018).

## **CONCLUSION**

The study reveals found the influence of demographic factors on the important competencies at the mid-managerial level like initiative, judgement, leadership, planning & organizing and problem-solving competencies for the Disaster Management professionals in Delhi. The demographic factors like gender and education contributing significantly to the competencies were found clearly while less significant demographic factors were also identified through a comprehensive analytical process in this study.

The results demonstrated that age of the employee and length of service moderately influence the competencies of disaster management professionals. The results also revealed that marital status partially influences the competencies while gender and education were the significant predictors of competencies among the sociodemographic variables.

The results from this study have important and practical implications for mid-managerial level Disaster Management professional and their selection process. For mid-level managers, it is highly essential that they are encouraged to enhance their knowledge through acquiring quality education at the master and higher levels. Also, the management should always endeavor to organize refresher courses and sponsor employee for further training to equip them with improved & updated skills and competencies. The selection process should also ensure that demographic factors contributing significantly to the competencies have higher weightage than the other parameters.

The study was limited to mid-managerial level Disaster Management professional in Delhi in the selected organizations working in the field of disaster management; thus, wide generalization may be difficult. Also, the small sample size was due to availability of only a less number of professionals in the disaster management sector in Delhi as well as the time and financial constraints. Based on the

enumerated limitations of the study, any researcher who wants to replicate this study should endeavor to increase the sample size and involve more organizations.

The study revealed that demographic factors have an important relationship with the competencies in the disaster management field. The study may prove to be useful in restructuring the competency matrix of this field and may be useful in making substantial changes in selection criteria of mid-level disaster management professionals. As in the study, relatively strong relationship between educational qualification dimensions and competencies was obtained, future research efforts should be directed at the effect of educational qualification on competencies through job characteristics. The effects of cultural differences and language on the relationship between educational qualification dimensions and competencies should also be studied.

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