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Gender as determinant of nature of task: A study of professionals in India

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Abstract: teams have become important and are more popular today than ever before in terms of various kinds and sizes. Because of changing workplace demographics, teams have become more gender diverse. It has been suggested that some gender differences do exist in communication, co-ordination patterns, decision-making, risk taking and so on. This paper explores whether or not there is a belief regarding the differences existing in choice of task and related issues. The population for this research work consists of a sample of 300 professionals (actual sample was 320, out of which 20 responses were rejected). These include 46 men and 65 women (total 111 professionals) from Health care sector, 67 men and 30 women (total 97 professionals) from Information Technology sector and 56 men and 36 women from (total 92 professionals) Armed forces. It is based on a questionnaire having close-ended questions on Likert scale. It is concluded that significant difference exists about ability and inclination to a job by the two genders.

Keywords: Gender differences, Task, Teams, Healthcare, Defence, and Information Technology.

1. Introduction – Historically it has been observed that there are some natural or biological and social differences among men and women. These differences are reflected through a number of variables like differences in communication, intelligence, risk-taking capabilities, coping with stress, performing different roles or tasks and so on. Our emphasis in this paper is on the gender differences in terms of the nature of tasks performed by men and women. The evolutionary studies suggest that men and women differ in terms of their physical, emotional and to an extent their psychological capacities, due to which they cannot perform all type of tasks equally. Men get an advantage over women in terms of their physique and body strength and thus, were

2. Supposed to perform activities like hunting, herding and warfare that required such physical strength. Similarly for women, their biological capacities demanded them to

go for reproduction, child-bearing and taking care of house-hold matters. Such divided activity arrangement for the purpose of achieving activity-efficiency led to the division of labor between both the sexes. Division of labour emphasized that all complex, risk, judgmental, physical and hard tasks should be performed by the male members and the simple, routinised, less risk- taking and light tasks should be performed by the female members. This early division of labour is also found in modern organizations to a large extent, where again it is the male members who face the brutality of combats, maintain and maneuver heavy machineries, construct concrete structures and risk their lives in mines and other underground activities, which cannot be undertaken by women due to their physical and mental limitations. On the other hand, women are preferred to perform certain tasks such as nursing, teaching, back office activities and involve themselves in industries like textile, handicrafts, cottage industries, etc, where there is less involvement of physical activities and minimum amount of risk factor.

Gender roles refer to the set of social and behavioral norms that are considered to be socially appropriate for individuals of a specific sex in the context of a specific culture, which differ widely between cultures and over time (Wikipedia). Different cultures impose different expectations upon the men and women who live in that culture (Anonymous). *The physical specialization of the sexes* (Eagly A.H., A.E. Beall, & R.R. Sternberg, 2004) is considered to be the distal cause of gender roles. Boys instinctively like the colour blue, whereas girls are crazy for pink (Connor, S (2007). Men are bad at coping with pain, while women can patiently tolerate a lot of it. Key evolutionary differences separate the intellects of men and women and it is all down to our ancient hunter-gatherer genes that program our brains. The belief has become widespread in the publication of John Gray's *Men Are from Mars, Women Are from Venus* that stresses the innate differences between the minds of men and women. Boys, therefore, develop improved spatial skills not because of an innate superiority but because they are expected and are encouraged to be strong at sport, which requires expertise at catching and throwing (Silverman, I., & Eals, M. (1992). Similarly, it is anticipated that girls will be more emotional and talkative, and so their verbal skills are emphasized by teachers and parents (Gurian, M., 2001).. The other differences between the genders are due to their biological characteristics and social upbringing, due to which men are more aggressive and women are more emotional; men are more risk-taking and women are more risk-averse, men prefer for hard task whereas women give priority to softer jobs. The debate whether the differences exist for biological or social factors is still on.

Fisher (1999) claims that the prehistoric division of work “built” different aptitudes into the male and female brain through natural selection. For example, different skills were required for hunting, which was generally performed by males, than for gathering, performed by women. As a consequence, women think “contextually”, as they synthesize many factors into a “web of factors”, while men think linearly, focusing on a single task until it is finished. Even though women have made significant

advances in terms of catching up economically with men, gender differences in wages and in representation in high profile jobs still prevail (e.g. Bertrand and Hallock 2001). The most common hypotheses for the gender disparity are discrimination and gender differences in abilities and in preferences for types of jobs. The psychological literature suggests that women and men differ in their self-perception of ability in many domains (Beyer 1990, and Beyer and Bowden 1997). Furthermore, these perceptions of competence are intimately tied to expectancies, aspirations, persistence and preference for challenging tasks (e.g. Boggiano, Main and Katz 1988, Cutrona et al 1994, Elliot and Dweck 1988 and Harackiewic and Elliot 1993). Women are, therefore, found to have lower expectancies of future performance than males in many areas of achievement (e.g. Beyer 1990, Elliot & Harackiewicz 1994). Women are not only often less certain about their abilities, they are also found to be more risk averse, and less willing to explore and test their abilities (see also Dweck 2000 and Byrnes, Miller and Shafer 1999).

2. Need for study - Teams have become important and are more popular today than ever before in firms of various kinds and sizes. Now a day's, organizations are increasingly focusing on teams to increase competitive advantage by improving productivity, enhancing creativity, increasing response times, and improving decision- making. In fact, 68% of Fortune 1000 companies were found to use self-managed work teams. Because of changing workplace demographics (Rogelberg G. S., and Rumery M.S., 1996), teams are becoming more gender diverse. More and more women are now joining the corporate world. Most of the gender-based researches have compared all-male with all-female teams or same-gender with balanced-gender teams It is expected that teams of varying gender configuration would differ in communication, coordination patterns, task differences, decision-making and various other areas, and that these differences would account for significant variation in team process and outcome measures.

Since, our literature review finds a gap that such gender differences have not been studied in India, though plenty of research is found in other countries, hence, our research is focused on the measuring expressed beliefs of men and women vis-a-vis tasks. The study is focused on Army, Health care and Information Technology sectors in India.

3. Statement of the problem – Gender equality has been a very prominent issue in professional organizations. Many believe that division of tasks as man-oriented and woman-oriented is natural and perhaps more efficient. Others, on the other hand believe that women have the same proficiency and inclination to do a job as men and that difference that has been found is primarily because of social factors. A study is needed to assess the position in this respect. This study makes an assessment whether or not a difference exists in organizations that have modern men and women working side-by-side – with respect to nature of tasks and related issues.

4. Objective of the study – To study the gender differences relating to nature of task

and related issues in Information Technology sector, Healthcare sector and Armed forces.

5. Methodology:

a. Our study is based on empirical and conclusive research as it is a data-based research followed by conclusions that are capable of being verified. The formulation of hypothesis is another reason for the choice of empirical research. Since conclusive research tests the hypothesis of the research problem and draws definite conclusion for implementation, thus, our research is also conclusive in nature.
b. The population for this research work consists of (i) All the Defence officers currently working in India, (ii) All the Physicians (holding a minimum of MBBS degree) and Nurses working in India, (iii) All the engineers working in software development in India.
c. Out of the entire population, a sample of 300 professionals was chosen using random and judgmental sampling method. As per the judgmental sampling we have taken into consideration the regions and the organizations of the population and as per the random sampling we have chosen the subjects (respondents who have filled the questionnaire). The researcher has opted for judgmental sampling because the population was known and clearly identified, and in order to avoid biased results, randomly the subjects were chosen.
d. The actual sample size was 320, out of which 20 responses were rejected. The sample size consist of 46 men and 65 women (total 111 professionals) from Health care sector, 67 men and 30 women (total 97 professionals) from Information Technology sector and 56 men and 36 women from Defence (total 92 professionals).
e. The sample has represented all the Information Technology professionals, Health care professionals and Defence officers (presently employed) throughout India.
f. A questionnaire was prepared that comprised closed-ended questions to measure the expressed belief of our respondents.
g. The questions are based on nature of task which states the differences between men and women. Evaluation of each question has been done by analyzing the compared means through one-sample t-test, at 95% confidence interval.
h. The data has been collected using **Likert Scale**. The ratings are given below:

Strongly Disagree	**1**
Disagree	**2**
Slightly disagree	**3**
Neither agree nor disagree	**4**
Slightly agree	**5**
Agree	**6**
Strongly agree	**7**

6. Hypotheses – the researcher hypothesizes that there are certain differences among men and women in terms of their preference towards the nature of tasks and their related

issues performed by both the genders in teams. To test this, researcher has used the Z- test for which the decision rule is- $t \geq 1.972$ or $t \leq -1.972$. If the value of 't' lies within this range, then we reject the null hypothesis and accept the alternate one and vice versa.

7. Scope of the study –

Study is limited to –

7.1 Three sectors only i.e. Information Technology sector, Healthcare sector and Armed forces.

7.2 The study has been limited to India only

7.3 We have concentrated only on the gender differences; no other demographic factor has been undertaken.

7.4 Focus is only on nature of task and related issues.

7.5 Our sample size was 320 out of which 20 responses were rejected due to incomplete information.

8. Analysis - the study is focused on the differences that do exist in the belief of men and women regarding nature of task and other related issues while working in teams. On this basis, the researcher hypothesizes that-

Ho: No gender difference exists towards nature of task and related issues.
Ha: Gender difference exists towards nature of task and related issues.

By using the z-test, we have analyzed the value of 't' and have proved the significance level to accept or reject the null or alternate hypotheses.

Decision rule for testing hypothesis is - $t \geq 1.972$ or $t \leq -1.972$.

8.1 Generally it is the tendency of men in a team to confront a risky task in comparison to their women counterparts. The hypothesis is that:

Ho: Tendency of men to confront a task in a risky situation is same as that of women.
Ha: Tendency of men to confront a task in a risky situation is higher than that of women.

In Table 1.1 we find that value of t is 21.062, which is higher than 1.972. Thus, by following the decision rule, we reject the null hypothesis and accept the alternate hypothesis. This is also confirmed by the significance level (shown in table 1.2) which is 0.000 – well below 0.05. In other words it can be said that the tendency of men to confront risky situation while working in teams is higher than that of women.

8.2 It has been observed that it is the general tendency of women members to take prompt decisions in structured tasks in comparison to men while working in teams. The hypothesis is that:

Ho: Tendency of women to take decisions promptly when the situations are simple and structured is same as that of men.

Ha: Tendency of women to take decisions promptly when the situations are simple and structured is higher than that of men.

In Table 2.1 we analyze that value of t is 9.789, which is higher than 1.972. We therefore, reject the null hypothesis and accept the alternate hypothesis by following the decision rule. This is also established by the significance level (table 2.2) which is 0.000 –
much lower than 0.05. Hence, it can be concluded that the tendency of women members to take decisions promptly when the situations are simple and structured is higher than that of men in teams.

8.3 Usually it is the common tendency of male members while working in teams to take prompt decisions in complex situations in comparison to female members. The hypothesis is that:
Ho: Tendency of men to take decisions promptly in complex situations is same as that of women.
Ha: Tendency of men to take decisions promptly in complex situations is higher than that of women.
In Table 3.1 we examine that value of t is 14.226, which is again higher than 1.972. Considering the decision rule, we therefore, reject the null hypothesis and accept the alternate hypothesis. This is also defined by the significance level (table 3.2) which is 0.000 – below 0.05. Thus, it can be said that the tendency of men to take decisions promptly in complex situations is higher than that of women.

8.4 Universally it is acceptable that there are certain jobs which are specific to female members only. The hypothesis is that:
Ho: No jobs can be performed better by female members
Ha: A few jobs can be performed better by female members

In Table 4.1 we find that value of t is 21.311, which is higher than 1.972, thus, depending upon the decision rule we reject the null hypothesis and accept the alternate hypothesis. We also confirm it by the significance level (shown in table 4.2) which is 0.000 – far below 0.05. In other words, it can be concluded that there are certainly few jobs that can be performed better by female members.
8.5 It has been observed that in general it is the tendency of male members to pass on the simple and time consuming jobs to women in teams. The hypothesis is that:

Ho: Male members do not have the tendency to pass on the jobs that are simple and time consuming to women members.

Ha: Male members have the tendency to pass on the jobs that are simple and time consuming to women members.

In Table 5.1 we examine that value of t is 7.929, which is more than 1.972. Referring to the decision rule, we therefore, reject the null hypothesis and accept the alternate hypothesis. We conclude this by the significance level (shown in table 5.2) which is 0.000 – very low than 0.05. Hence, we can say that while working in teams, male members have the tendency to pass on the jobs that are simple and time consuming to women members of the team.

9. Findings and suggestions

From the results and discussions it is clear that there are significant gender differences in terms of views about ability and inclination to do a job in selected sectors. Our analysis has shown that there are differences among men and women in taking up different tasks and that the capacity and potential of men and women differs from each other – at least in their general belief. It is not our contention that men and women have different proficiencies depending on nature of job holistically. Indeed a very high percentage of jobs are actually gender neutral and only a few tasks may actually be performed more proficiently by men or women. Since gender mixed teams are more prevalent and required in modern organizations, thus proper attention should be given on the type of tasks that are being defined for each gender to enhance their effectiveness and to utilize their full potential. While making teams in Health care sector, IT sector and Defence sector (where a number of women are joining now the armed forces), even emphasis should be placed on the type of tasks going to be performed, so that each member can contribute according to their capacities. As we have already discussed that men and women differ in terms of their physical, emotional and perhaps mental capacities, hence such differences should be given due consideration while assigning tasks. As this study is carried out in three sectors, it is found that, this study is beneficial to all the three sectors in analyzing the gender based differences in terms of nature of tasks and their related issues. This study will help the three sectors to build up an efficient and strong team and achieve the desired result.

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Tables

Table 1.1

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Q1	300	5.50	1.236	.071

Table 1.2

One-Sample Test

	Test Value = 4					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Q1	21.062	299	.000	1.503	1.36	1.64

Table 2.1

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Q21	300	4.74	1.315	.076

Table 2.2

One-Sample Test

	Test Value = 4					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Q21	9.789	299	.000	.743	.59	.89

Table 3.1

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Q28	300	5.09	1.327	.077

Table 3.2

One-Sample Test

	Test Value = 4					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Q28	14.226	299	.000	1.090	.94	1.24

Table 4.1

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Q41	300	5.58	1.284	.074

Table 4.2

One-Sample Test

	Test Value = 4					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Q41	21.311	299	.000	1.580	1.43	1.73

Table 5.1

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Q46	300	4.75	1.646	.095

Table 5.2

One-Sample Test

	Test Value = 4					
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Q46	7.929	299	.000	.753	.57	.94