# **An Exploratory Study of Motivation Within Working Environment of Armed Forces**

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#### **Abstract**

In the armed force scenario, motivation and morale are the key factors which make the vital difference between victors and vanquished. Motivation makes preeminent influence on a soldier's behaviour at the moment of engagement. It is thus essential to maintain both at all time for a battle-ready army. In this work an attempt is made to study various aspects of motivation. Effort is made to identify the intrinsic and extrinsic motivators and their effects on soldiers. To carry out a holistic study, responses from the cadets (newly joined youth in the officer cadre) as well as personnel from Services have been collected. Seven key factors are identified for personnel in service. These consists of 4 extrinsic and 3 intrinsic factors. In case of newly recruited cadets, six factors have been identified that consist of 4 extrinsic and 2 intrinsic attributes. For the cadets, the intrinsic factors are found to be at the bottom of scale. The variation is studied using both descriptic and inferential statistics. Areas have been identified which can be emphasized to maintain high motivational level of soldiers in the working environment of Indian armed forces.

*Keywords:* Motivation, Intrinsic and Extrinsic motivation, Indian Armed Force, officers, cadets, Personnel below Officer Rank (PBOR), Morale

#### Introduction

Armed forces not only need state of the art weapon systems but also need people who must be attracted to join the organization, remain in it, perform their task in a dependable manner to achieve organisation goal and ensure safety of the nation even at the peril of their life. The key to this aspect of the human factor is motivation. One of the simplest definition is given by Malani (2005), "Whenever a person enters an organisation he can think of two levels of performance. One: the minimum he can get away with: the other: the maximum he is capable of. And the difference between the two is motivation." Motivation can be split into extrinsic and intrinsic motive systems. Extrinsic motives are that a person consciously attributes to his or her behaviour and influence decisions and judgments. Extrinsic

motives are strongly influenced by social demands. Intrinsic motives are subconsciously aroused and lead to effective preferences. Extrinsic motives relate to cognitive influenced behaviour, while intrinsic motive relates to subconscious responses linked to affect.

Today's soldier is equally affected, like any other citizen, by the changing socio-economic and political environment prevailing in the country. A soldier today joins from the society where indiscipline and corruption are on the increase. The breakup of joint family system has made him more self-centered and his value for traditions and religion have lessened. He has become more conscious of his rights rather than his responsibilities, thanks to developed communication and the social network

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media! The behaviour of an individual is difficult to predict and explain as it is not only complex but also it is also situational, change-oriented and differs in expression from one individual to other. It is thus important to understand both intrinsic and extrinsic factors.

# Theoretical Concept on Intrinsic and Extrinsic Motivation: Review of Literature

Intrinsic motivation is being related to the desire to do a task in a best possible manner so as to experience the joy and satisfaction inherent in the activity (Deci, Connell, & Ryan, 1989). Extrinsic motivation, in contrast, related to perform an activity with the intention to attain positive consequences such as areward/promotion or to avoid negative consequences such as a punishment (Deci & Ryan, 2000). The linkage between the two as well as their positive and negative influences are being researched extensively. Porter and Lawler (1968) had carried out a study to correlate both using the expectancy theory (Vroom, 1964) and had observed positive outcome on work performance and employee well-being. On the other hand, Deci and Rvan (2008) had found a differential effect of one on another. According to them, "If the effect of the extrinsic reward had decreased intrinsic motivation, it would indicate that the two types of motivation tend to work against each other rather than being additive or synergistically positive" (2008, p. 15). Cerasoli, Nicklin, and Ford (2014) observed that when incentives were indirectly tied to performance, a positive association exist between task outcome and intrinsic motivation. Similarly, Weibel et al. (2010) observed a motivational shift towards extrinsic motivation when performance is directly related to incentives. It is also a matter of concern that unless a balance is maintained between the two, an employee is likely to concentrate only on incentive-linked tasks and neglect the others thereby sidelining the organisation's goal. When extrinsic motivation becomes a dominant factor, an employee becomes more task-oriented and ignore states associated with intrinsic motivation (e.g., attachment, enthusiasm, thriving, engagement, and well-being), and end up with stress, burnout, and lower levelsof well-being (Gagné et al., 2010). Vansteenkiste et al. (2007) also observed that an extrinsic work-value orientation had negative associations with life satisfaction, job satisfaction, and life happiness and positive associations with work-family conflict and turnover intention.

#### Intrinsic Vs Extrinsic

If commanders are to succeed in understanding the basic motivational process, it is necessary to distinguish between intrinsic and extrinsic motivation factors. Intrinsic motivation is the motivation that results from an individual's need to be competent and self-determining. Intrinsically motivated tasks are those that are interesting and enjoyable to perform, irrespective of possible external rewards. Extrinsic motivation, on the other hand, deals with behaviours that are motivated by factors external to the individual. Examples of extrinsic motivation could be pay, pressure to perform, leadership behaviour, organisational climate, etc. Intrinsic motivation derives its name from factors that are self-driven, being felt by an individual. Our deep-rooted desire has the highest motivational power. Some of these could be:

- (a) Acceptance: We all need to feel that we, as well as our decisions, are accepted by our peer and sub-ordinates.
- (b) Curiosity: We all have the desire to be within the decision-making loop.
- (c) Honour: We all wanted to be respected for our action.
- (d) Independence: We all need to feel-We are unique.
- (e) Power: We all have the desire to be able to have influence.
- (f) Social contact: We all desire to be socially accepted and desired.

Extrinsic motivators provide external stimulus for a person to act. This can be due to fear or due to reward or due to other psychosocial factors such as:

- (a) Benefit package / Bonus.
- (b) Pay / Parity of pay / Equivalence of cadre.
- (c) Promotion / Career prospects.

(d) Awards / Recognition etc.

#### Relevance to the Armed Forces

In the armed force context, this is very important as the organization believes in team-work/ethos/spirit. It also indicates that intrinsically motivated persons will be more inclined to take responsibility for acquiring the necessary military skills and competencies without bothering about the immediate gain. The main driving force of an individual is comprised of his needs, wishes and professional aspirations, combined with the compelling desire to look good in his own eyes and in the eyes of others and this is for the organisation to help him to achieve this.

The age-old theory of the hierarchy of needs (Maslow, 1943)proposed that until the lower order physiological and security needs of a man are satisfied, the higher needs of belonging, esteem and self-actualisation, which really contribute to

organisational effectiveness, would not operate. The intensity of a need in a person will be determined not only by the cultural influence he was exposed to during the development period but also by the immediate situational factors. UdaiPareek (2012) proposed the need profile of Indian through 'need rigour', 'need extension' and 'need dependency'. However, these factors do see a structural shift in the ladder in a military environment. A pictorial representation of the hierarchy of needs as proposed by Maslow at the different situation in Armed Force context is shown below. The combination of needs a soldier would have at the time of joining the service. during peacetime and during war situation is depicted in Fig 1. The pictorial representation depicts that the priority changes from an individual/organisation's perspective. It is thus important for the organization to formulate its intrinsic and extrinsic motivation policies to address the different state of mindin different situations.

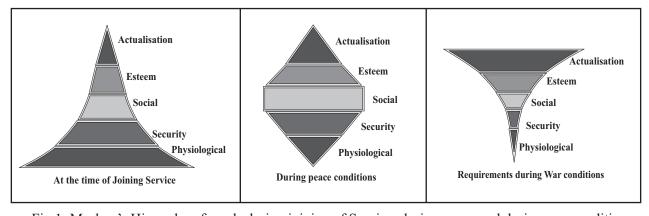


Fig 1: Maslow's Hierarchy of needs during joining of Service, during peace and during war condition

#### Motivation and Morale

Motivation and Morale are not synonyms although there exists a strong correlation between them. It is the responsibility of the leader to identify the motivator and de-motivators and follow judicious measures to maintain high morale of troops at all time. There is no single magic wand to motivate since everyone's needs and priorities are different. The man in the service today is very conscious of his

rights as a citizen and of his technical skill and achievements. It is the coercive, remunerative and normative powers of a soldier that move him to do the assigned task. The practical importance of understanding how to distinguish between employees who are more extrinsically motivated and those who are more intrinsically motivated is the key element for commanders who are required to motivate their employees.

#### Aim of the Study

The Aim of this work is to study the relationship between an intrinsic and an extrinsic measure of motivation to provide a better understanding of workplace motivation within armed forces

### **Hypothesis**

Motivation factors are not the same for all ranks in the Armed Forces and it does not affect workplace environment.

#### **Data Collection and Analysis**

Primary data was collected through a questionnaire. Considering the data collection limitations, most of the data is collected from Air Force personnel. Two sets of Questionnaire were prepared, one for medium level Air Warriors (service of more than 4 years) and second for initial stage cadets (only from ground duty officer cadets), who have joined at training establishment after completing the basic minimum qualification from various parts of the country. Part-I of data samples were obtained from Units, Field Units, Command HOs and from Training Establishments. Initially, a pilot survey was carried out and based on the standard procedure, questionnaire modifications were carried out to collect the desired sample size for a reasonable confidence level. A total of 424 responses were utilised for this study. 5 responses were dropped during the data analysis stage due to incomplete data, thus making into 419 dataset. The broad distribution of different category is as follows:-

(a) Officer's 87 (71 male and 16 female)

(b) Cadets 140

(Only Ground Duty Branches: 89 male and 51 female)

(c) PBORs 197

To find out whether the items reflected the constructs they were designed to measure, recommended practicee.g., Hinkin 1998 was followed. The dataset

was randomly split in two andconfirmatory factor analysis (CFA) on one-half and an exploratory factor analysis(EFA) on the other half was carried out. CFA is carried out to test "whether the newly written items conform to the hypothesized structure the scale architect had in mind(Hurley et al. 1997: 672)". Similarly, EFA is carried out to examine "discriminant and convergent validity (e.g., Hurley et al. 1997)". This also "reveals how well the items load on the non-hypothesized factors (Kelloway 1995)."

For the research variables, a 5-point Likert scale was used in which respondents were asked to give responses that were anchored from strongly agree (5) to strongly disagree (1). The summative scale is adopted to represent the average value of a construct. Chi-Square and ANOVA tests are carried out as a mean of hypothesis testing.

#### **CFAAnalysis**

The present database has two distinct populations, one those who are undergoing training to become officers and other those who are already in service. Thus, CFA analysis was carried out on these two different populations separately. SPSS Ver 20 software was used to carry out CFA analysis. The officers and Personnel below Officers Rank (PBOR) dataset consist of 280 respondents and cadets consist of 139 respondents. Eigenvalue of more than 1.0 was accepted. Varimax rotation technique was adopted. KMO index of 0.862 and 0.796 respectively indicate higher adequacy of sample size for principal component analysis. Small values of Bartlett's Test of Sphericity (less than 0.05) of the significance level indicate for both the cases suggest that a factor analysis may be useful with the data. Factor analyses result in a cumulative percentage of the explained variance at 72.9% and 63.8% respectively suggesting adequacy of CFA. Summary of basic factor analysis is placed at Table 1.

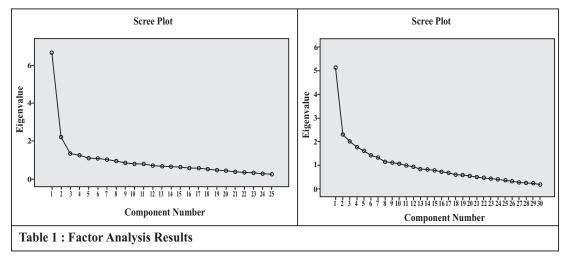
Officers and PBOR Data set 280 respondents (25 questions)			
KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.862	
Bartlett's Test of Sphericity	Approx. Chi- Square Df Sig.	300 .000	
Cumulative % of Variance Explained:			

72.9%

#### <u>Cadets data set</u> 139 respondents (25 questions)

KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.796	
Bartlett's Test of	Approx. Chi- Square	1104.349	
Sphericity	df	435	
	Sig.	.000	

Cumulative % of Variance Explained: 63.8%



The CFA yielded seven factors for Offrs\_PBOR data set while six factors are identified with Cadet's data set as enumerated below. The Factors identified in order of preference are summarised in Table 2.

Officers and PBOR Data set 280 respondents (25 questions)	<u>Cadets data set</u> 139 respondents (25 questions)	
Factor 1: Extrinsic Factor: Working Environment	Factor 1: Extrinsic Factor: Social Security	
Factor 2:Intrinsic Factor: Job Satisfaction	Factor 2: Extrinsic Factor: Status	
Factor 3: Intrinsic Factor: Patriotism	Factor 3: Extrinsic Factor: Working Environment	
Factor 4: Extrinsic Factor: Teamwork	Factor 4: Extrinsic Factor: Job Security	
Factor 5:Extrinsic Factor: Status	Factor 5: Intrinsic Factor: Self Actualisation	
Factor 6:Extrinsic Factor: Social Security	Factor 6: Intrinsic Factor: Patriotism	
Factor 7:Intrinsic Factor: Self Actualisation		
Table 2: Key motivating factors for service personnel and cadets		

Analysis of serving personnel database indicates that motivation is dependent on four extrinsic factors and three intrinsic factors. Similarly, for the cadets also, there are four extrinsic and two intrinsic factors. The difference in priority as revealed from the above analysis brings out a few important aspects. It is interesting to note that while in service, working environment and job satisfaction become the top priority. Armed force does provide enough motivation to inculcate patriotism among its personnel. Teamwork, status, and social security became the other priorities before reaching the feeling of self-actualization state. On the other hand, the perception of social security and associated status appear to be predominant factors among cadets. Working environment and job security seem to be next priorities before they manifest into selfactualization and patriotism. The result is somewhat different to the general perception that patriotism drives today's youth to join armed forces. In contrast, there is a better unanimity among the cadets on the status attached to officer-cadre and the social security that it guarantees apart from providing a clean working environment and job security. These factors, in order of preference also indicate the priority that armed forces must give in order to guarantee an enhanced sense of loyalty and commitment to the organization.

# **Cluster Analysis**

In factor analysis, we take several variables, examine how much variance these variables share, and how much is unique and then 'cluster' variables together that share the same variables. Cluster analysis is a similar technique except that rather than

Number of Cases in each Cluster			
Clusters	1	2	
	2	72	
	3	39	
	4	131	
	5	173	
Valid		417	
Missing		2	
Table 3: Cluster Analysis			

trying to group together variables; we are interested in grouping cases. Therefore, in a sense it's the opposite of factor analysis: instead of forming groups of variables based on several people's responses to those variables, we instead group people based on their responses to several variables.

K means non-hierarchical Cluster analysis was carried out on data set having 419 cases using SPSS. Euclidean distance as the similarity measure was first taken to aid in assessing the most appropriate number of clusters represented in the data. They were found to be distributed within five clusters having a number of cases as listed below. Considering the large percentage of cases grouped in cluster 4 (131 cases) and cluster 5 (173 cases), it can be ascertained that sample is uniformly distributed and the dataset is homogenous in nature. The eucledian distance between final cluster centresis also found to be significant enough for making these groups. In the Dendrogram analysis, as the respondents were serially numbered, it can be observed that each cluster has respondents from all three groups (Officers, PBORs and Cadets). Five distinct combinations of motivation regulations emerged from the analyses reflecting selfdetermined, motivated, average, low motivation, and external profiles. There were both similarities and differences in experiences among the five profiles. Between the first two groups, the respondents had high levels of intrinsic motivation though they differed on extrinsic motivation. Overall, it appears that experiences were quite positive when respondents had high levels of intrinsic motivation. Among the average and low motivation groups, the profile demonstrates average-to-low levels of intrinsic motivation.

# **Perception Mapping: Descriptive Statistics**

Percentage mapping of each question was carried out to ascertain the key perception. Summary of a few questions is placed below.

		Mean	Percentile 75
1	There is no better way to serve the nation	(3.7)	Agree
2	Our country respect gallantry	(4.1)	Strongly Agree
3	Good carrier in Armed Forces	(4.2)	Strongly Agree
4	It was my dream right from my childhood	(3.6)	Strongly Agree
5	I love adventure and am impressed with the	(3.3)	Agree
	advertisement that I saw in TV/ Newspaper		
6	My status in front of my friends and	(3.7)	Agree
	relatives have gone up		
7	I hate studying and I am sure Armed Force	(1.6)	Disagree
	don't believe in study		

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8	There is no other job I could have got with	(1.7)	Disagree
	my present calibre		
9	I can pursue my love for sports and other	(4.0)	Agree
	extra-curricular activities		
10	Achieve salutation if I die soldier's death	(4.1)	Strongly Agree
11	Social recognition and good interpersonal	(4.2)	Strongly Agree
	relation		
12	Achieve success according to theability	(4.1)	Strongly Agree
13	Secure, permanent and reliable	(4.2)	Strongly Agree
	job position		
14	Sufficient medical facilities for self	(4.2)	Strongly Agree
	and family		
15	I will be very happy to work in different	(4.4)	Strongly Agree
	parts of the country		
16	It will provide me job security	(4.1)	Strongly Agree
17	It has a culture that emphasizes achieving	(4.2)	Strongly Agree
	difficult targets		
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Table 4 : Perception among Cadets			

It is heartening to find that youths joining Armed Force career are confident of themselves; they are highly qualified and have joined armed forces because of their passion. They feel proud of being selected as a defence officer. More than 75% feel that armed force career is one of the best ways to serve the nation. They are willing to work at any place in the country. Majority of cadets have responded that their status has gone up after joining the armed force as officers. The social status happens to be a great motivator for today's youth. Highest mean values are obtained for Good career (4.22), social recognition (4.2), work culture (4.2), and job security (4.1) indicating preference of youth towards these factors.

As part of perception mapping, each respondent were asked on issues such as:

- (a) I like to change the following to make my organization a better place to work at:- ( 2 0 options were given on a 5 point Likert scale; Part II of the questionnaire)
- (b) Rank order in order of preference to factors (10 factors were given and respondents were asked to rank-order them in order of their priority)

The analysis of this part is not discussed in this paper considering the sensitivities of data involved.

# Hypothesis Testing: Chi-Square Analysis

In this study, the analysis is based on the content theories, which identify the specific needs those are responsible for creating and directing the human behaviour. It is intended to study how these perceptions change based on the social status depicted in Ranks or perception as male and female. Age, gender, marital status etc. To prove the above, Chi-Square test of homogeneity is carried out on officers, PBORs and Cadets database. Analysis has been done based on Rank, Sex.

#### **Data Analysis for Officers and PBORs**

As is shown from the tables under the title of the chisquare test for officers, PBORs and cadets. No apparent difference was observed except only on 9 attributes out of 25. Working in Armed force is also perceived as teamwork (p= 0.836, and p=0.810). Both offrs and PBORs as well as among male and female also perceive that success can be achieved based on an individual's ability (p= 0.104 and p=0.554). There also exist unanimity on issues of having a culture to achieve difficult targets (p=0.680). The analysis shows some marked variation among the perception based on favouritism and corruption issues. Chi-square analysis indicates significant result (p=0.000 and p= 0.001 among Offrs and PBORs). A significant difference is also perceived when asked that seniors put service before theirself (p=0.000). Itis generally perceived that people prefer to join Armed force as it provides opportunities on an adventure and other extracurricular activities. However, the perception found to be different (among Offrs and PBORs p=0.032, between Sex p=0.017).

# Data Analysis for Cadets

Responses among cadets on various questions are found to be similar except on two attributes i.e. 'Good carrier in Armed Forces' and 'My status in front of my friends and relatives have gone up' with p values as 0.008 and .019. This indicates that female officers think alike on most issues compared to their male counterpart.

# **Hypothesis Testing: ANOVA Test**

One Way Analysis of Variance (ANOVA) was carried out to investigate the mean values of various responses. Factors such as Rank e.g. Officers and

PBORs and Sex was analysed for officers\_PBOR data set. The factor of Sex was analysed for cadet's dataset. The aim was to test whether these means are significantly different. The analysis was carried out for all questions of part-I. However, the analysis indicated that only 9 attributes out of 25 questions asked in part-I are significantly different among officers and PBORs. These are summarised in Table 5. In all these cases, the significance value or p is found to be < 0.05. Most of these are found to be extrinsic factors

Attributes / Questions Comparison between Officers and PBORs	Sig. value
Our country respect gallantry	.017
There is no favouritism in armed forces	.001
There is no corruption/ favoritism in Armed Force	.001
I can serve in this organization up to my age of retirement	.042
Secure, permanent and reliable job position	.001
I feel, I cannot get better pay, allowance and other benefits	.004
if I do job outside	
It will provide me job security	.012
My seniors always put Service before Self	.000
Lack of interaction with people in their work	.003
Bureaucratic and over-regulated working environment	.001
Lack of autonomy	.044
Make people accountable for their decisions	.002
Table 5: Chi-Square test results across Officers and PBORs	

ANOVA analysis was also carried out for all questions asked in part I to the cadets. Sex of the cadets (Male/Female) was used as a factor to test their responses. The result indicated that only on 3 attributes, there is a significant variation of response. As summarised in table-6, the perception seems to be different on issues like social status and age of retirement. It is seen that where male officers are more passionate about status and job security, the women officers do not rate these high. These do suggest the change in motivation factor among the male and female cadets.

Attributes / Questions	Sig. value
Comparison between MALE & FEMALE Cadets	
My status in front of my friends and relatives have gone up	.012
Operating as part of the team rather than as an individual	.043
I can serve in this organization up to my age of retirement	.011
Table 6: Chi-Square test result among male and female cadets	

On basis of the above analysis, the Null hypothesis can be rejected and the alternative hypothesis is accepted. Thus, it can be observed that except few extrinsic factors, motivating factors are the same among all ranks within armed forces.

#### Limitations of the Study

The study is based on responses received from a limited sample. The study can be extended to include a large database. Analysis also needs to be done to understand upbringing, education level, family constraints, regions, and religion perception.

#### **Conclusions**

Motivation is a dynamic phenomenon; troops once motivated should not be taken for granted that they will remain motivated at all times and under all environments. There is a need to have a sensing process to check the level of motivation. The management of human resources and their efficient performance depends upon good motivational profile of both intrinsic and extrinsic nature. As it is said, "It is the man behind the machine that matters", the leadership must ensure that motivation of the troops is high at all time. Extrinsic factors are found to be the main motivators for the talented youths to join armed forces. Efforts thus need to be made to ensure that challenging and satisfying career opportunity is available in the working environment of the armed forces. It is heartening to find that intrinsic factors play a major role for personnel of the armed forces. Working environment and jobsatisfaction are found to be major motivators for personnel working in this organisation. Efforts must be made to maintain and improve the same to minimize pre-mature retirement of talented and skilled personnel. The new generation is more comfort-oriented and has divergent views, socially and politically. Motivation being a dynamic process requires modifications in motivational techniques to suit prevailing social norms.

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