ASPECTS OF EMOTIONAL INTELLIGENCE ON EFFECTIVE
LEADERSHIP:AN EMPIRICAL STUDY ON THE INDIAN ARMED FORCES

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ABSTRACT

Emotional intelligence is the aggregate of the strengths and weaknesses of one's emotional competencies. In organizations like Defence services where values are embodied in the conduct of its leadership, their behavior may dictate the emotional health and performance of the organization. The present work is aimed at mapping the EI scores of 345 promising senior officers of Armed Forces to identify their success in leading troops. While quantitative analysis is adopted to identify variations across the services, qualitative analysis is followed to identify core values and attributes of leadership, which are valued most by the soldiers, and factors that affect the emotions of soldiers. A way-forward strategy is suggested in building up effective leaders for meeting tomorrow's challenge.

KEYWORDS: Emotional Intelligence, Leadership, Organizational Effectiveness, Leadership Styles, Leadership Attributes, Armed Forces, Soldiers

INTRODUCTION

The human dimension of the warfare will always remain the same, i.e., uncertain, mentally complex, physically demanding and filled with intense emotional experience. Military leadership requires the highest levels of commitment, strong relationships to ensure obedience and compliance with orders. It can be highly demanding and extremely stressful. The relationship between the leaders and the followers is more likely to be emotional due to varied tasks and uncertain situations. Emotionally intelligent leadership is key to creating a working climate that nurtures subordinates and encourages them to give their best. The management of emotions thus is a crucial skill to be practiced by effective leaders. In a review of leadership theory, Northouse (2004) identified four common themes: (a) leadership is a process; (b) leadership involves influence; (c) leadership occurs in a group context; and (d) leadership involves goal attainment. He thus defines leadership as "a process whereby an individual influences a group of individuals to achieve a common goal."

The Armed Forces recognize the need for competent leaders at all levels to accomplish their missions effectively and efficiently. Leadership on the battlefield is different because its basic purpose is to induce men to charge into the jaws of certain death. Such motivation cannot be generated by the mere promise of a 'bonus', a 'promotion' or other material inducements nor by showing the military rulebook. This immobility is the result of an intangible that Marshall Foch called a predominant influence in the outcome of battles - moral force. The work content of the armed forces personnel is such

that they are bound to harbor a feeling of hatred and anger against the enemy. Basic survival instincts would also surface when he fights the enemy, under difficult conditions. To handle such a situation demands a thorough understanding of what can keep the troop motivated.

Theoretical Concept on Leadership and Emotional Intelligence

In the military context, leadership can be defined as "The art of direct and indirect influence and the skill of creating the conditions for Organizational success to accomplish missions effectively."Social scientists have also recognized the importance of emotions on leadership effectiveness (Yukl, 1989). It also brings out a few core questions:

- **Why do some people emerge as leaders and others don't?**

- **How the effectiveness of leaders differ?**

A leader needs to recognize and manage the emotions of the human resources under his command through a continuous appreciation of their Strength-Weakness-Opportunity-Threat (SWOT) to achieve the organization goal. Having understood their mind, an effective leader can influence his subordinate's emotions so that they are more receptive and supportive of the organization's goal. In a simpler term, EI can be described as emotion management and utilization of the same to achieve organization goal (Mayer, Caruso and Salovey, 1999). In the early 1990s, Daniel Goleman along with David Mc Clell and linked empathy and emotional competencies to emotional intelligence.

REVIEW OF LITERATURE

Researches to differentiate between success and failure of a group have always been connected to deficiencies in supervision or overall leadership. Larson and LaFasto (1989) summarized in their study that *the final ingredient* in effective team performance is *leadership*. Their research concluded that the right person in a leadership role adds value to any collective effort. Ulrich, Zenger, & Smallwood (1999) in their '***Results Based Leadership'**,* argued the most preferred measure of leadership is the "end game" for the employee and ultimately to the organization. Research has found that an effective group leader has been essential for successful group performance (Hirokawa&Keyton, 1995). Studies also indicate that work environmental factors impact team performance. In their research into the drivers and barriers to effective teambuilding, Thamhain (2003) concluded that job content, personal goals and objectives, and work environment do impact team performance. To achieve the same, it is essential that we must understand different phases of subordinate's behavior. Boadella and Reich (1973) have identified five stages within a behavior cycle of emotion from creation to resolution. The flow involves Charge, tension, discharge, relaxation, and flexibility. The Kubler-Ross grief cycle, as quoted by Kearney et al. (2003), beautifully captures various stages of emotion as depicted in Figure 1. In 1990, Salovey and Mayer proposed the first framework of emotional intelligence by including the verbal and nonverbal appraisal and expression of emotion, the regulation of emotion in the self and others. *Goleman* defined the tenets of Emotional Intelligence to be constituted of *five basic domains*, which, to a certain extent were measurable such as (a) Self-awareness, (b) Self-regulation, (c) Motivation, (d) Empathy, and (e) Social skills. Mumford, Zaccaro, Harding, Jacobs, and Fleishman (2000) have specified **five** categories of leader attributes: (a) cognitive abilities, (b) personality, (c) motivation, (d) social appraisal and interpersonal skills, and (e) leader expertise and tacit knowledge. As a critic of the linkage between EI and job performance, Joseph et al. (2010) has proposed consideration of non-cognitive constructs in the work-place (other than 'Big Five') to job-performance.
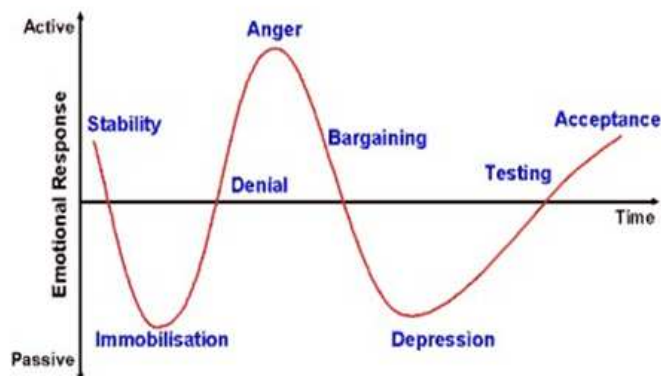
Figure 2: Kubler-Ross Grief Cycle

Aim of the Study

The aim of the study is to identify the predominant style of leadership style being adopted and analyze emotional intelligent score of senior military officers to understand its relevance for the military working environment and organizational effectiveness.

Limitations of the Study

The study is limited to the response received from a sample of senior officers. Direct correlation of an individual on his role as a leader and the perception of his immediate subordinates have not been captured.

Study Sample and Data Source

Primary data in form of responses through the questionnaire was collected from 345 officers. Majority of respondents were undergoing various career courses at various training institution of armed forces. Various Arms wise the distribution is shown in Figure 2. The data also includes responses from senior civilian officers and officers from friendly foreign undergoing various career courses.
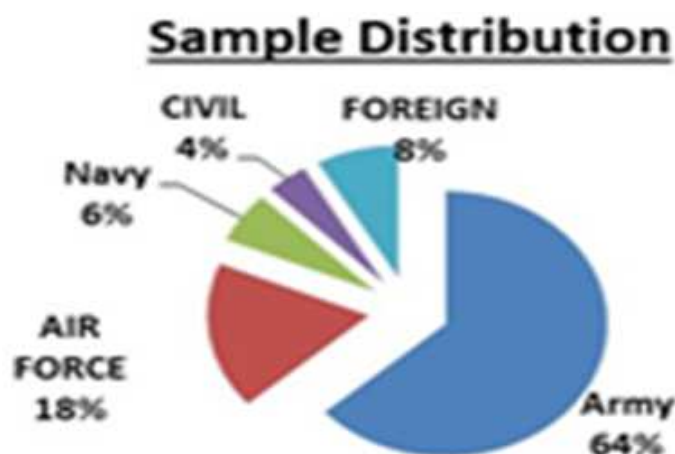

Figure 2: Sample Distribution

Measurement of 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). **Leadership** was measured using scales of vision and articulation, sensitivity to member needs, environmental sensitivity, and flexibility to change. Perception of a leader, as observed by the subordinates, was captured by adopting the majority of questions from the *MLQ* instrument. **Organizational effectiveness** was measured using scales of productivity efficiency, cohesion, information management communication, planning, and goal setting. While designing the questionnaire, few negative questions were also included to overcome ambiguity in responses.

EI Attributes. Emotional Intelligence is captured through Nicola Schutte (1998) and colleagues' self-report measure of emotional intelligence. Based on Peter Salovey and John Mayer's model of emotional intelligence, the scale items are designed to assess (a) the appraisal and expression of emotion in self and others, (b) the regulation of emotion in self and others, and (c) the utilization of emotion in solving problems.

Hypothesis. Two Null hypothesis is proposed as stated below:

Ho1:   EI level of officers are **not the same** across three services.

Ho2:   Perceptions of Organization effectiveness are **not the same** across three services.

Data Analysis Plan

Data collected was both in quantitative and qualitative in nature. While descriptive and inferential statistics were applied to quantitative data, text analysis and path analysis tools were used to analyze qualitative data. Where it is applicable, the summative score was used to obtain an overall picture. To test whether the perception is the same across the three services, Chi-square-test was carried out as a tool for hypothesis testing. Word cloud was also generated to highlight the key issues.

Leadership Styles

The broad styles of leadership can be summarized as (a) Directive, (b) Democratic, and (c) Delegative/Non-Directive. The directive style of leadership has two aspects; **authoritative and autocratic**. The **democratic style** is more aptly described as a **participative**/**delegative style**. In order to understand the leadership styles being practices by successful leaders, the Questionnaire was designed to identify their preference under varying circumstances. Twelve questions, referring to three styles of leadership were asked on a five-point Likert Scale (scale of 1 to 5). The average for each style was computed. For Example, an officer's score might be 4.5, 3.75, and 2.5 under Participative, Authoritarian, and Delegative / Non Participative style. These figures are the average of questionnaire under those groups. Any score above 3 indicates that there is an agreement of that style of leadership under a specific situation as shown in Figure 3. Taking the first preference into account, percentile distribution is created and the result is summarized as shown in Figure 4.The first graph corresponds to the entire dataset, while the second graph corresponds to dataset specific to armed forces. The graph is shown above clearly brings out the dominance of participative leadership style. The results also bring out the fact that a dynamic leader adopts a mix of leadership style suitable for the specified situation. The respondents were also asked a direct question to assess the style of leadership that best suited for Armed Force. The same is presented in Figure 5. The above analysis provides a contradiction to the derived style based on MLQ. While, the answer through MLQ indicates 83% personnel being categorized as participative style, the responses towards its suitability for armed forces are found to be

37%. A higher figure of 55% of respondents feels that the authoritative style of leadership is best suited for the Armed Forces. The dichotomy of this variation may lie with the fact that many leaders though prefer authoritative style but the decision-making process followed is more of participative in nature. The dichotomy clearly indicates that leadership style is dependent on the situation and the stage of someone's military career**.** It also gives an indication that the concept of an all-knowing leader is no longer relevant in the present technology era. It is apparent that successful Indian military leaders have already learned this management lesson and are involving their subordinate in the decision-making process thereby making them feel valuable and regarded.

Leadership Preference

	1	2	3
Participative	78.3	15.9	5.8
Authoratative	11.6	39.1	49.3
Delegative / Non particpative	10.1	44.9	44.9
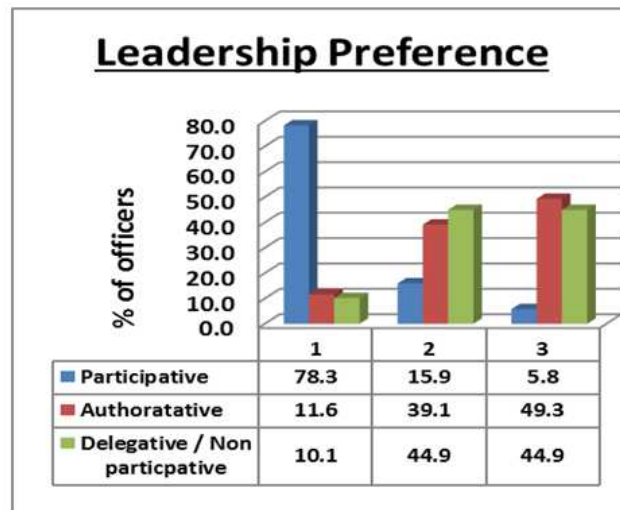
Figure 3: Leadership Preference (1, 2 & 3 Denotes I[st]**, II**[nd]** & III**[rd]** Preferences of Respondent's Leadership Style)**
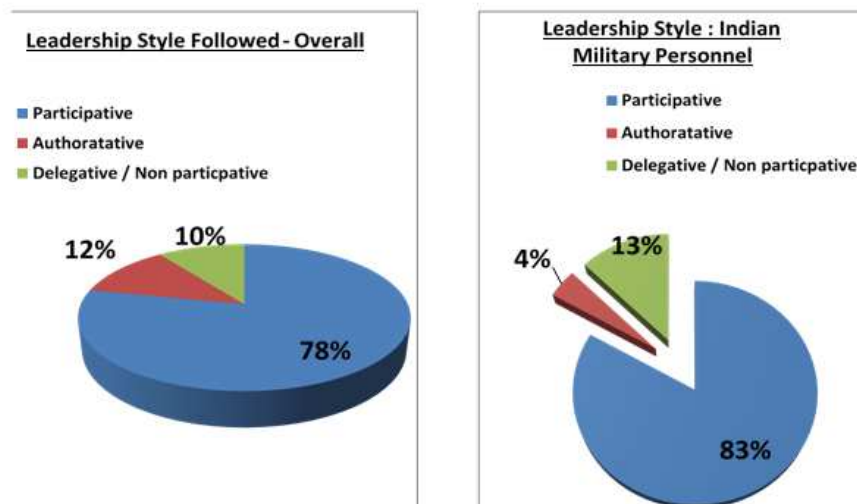

Figure 4: Leadership Style Followed

Figure 5: Leadership Style Best Suited for Armed Forces

Leadership Attributes

The ability to transit from one leadership style to another, depending upon the cultural or situational context is always a challenge for a leader. Regardless of technology, there are several human interoperability issues, which require a leader to be multi-skilled. A set of questions were asked to respondents on various situations to capture their leadership attributes. This will give an indication of the challenges a leader faces. The attributes listed are the external manifestation and the outcome of an effective leader as shown in Fig 6.

Figure 6: Desirable Leadership Attributes for Armed Forces

Emotional Intelligence Factor

The EI questionnaire, used in this study, is the standard format designed by Schutte. These attributes were computed by generating a cumulative score as shown. EI scores have been captured through the standard Questionnaire. Data was collected using a five-point Likert Scale. Reliability Test was carried out by computing **Cronbach α** for the assigned 8 constructs. It is interesting to note that '**α**' value is found to be significantly low in two aspects, Managing

other's Emotions and Social Skill Score. The reason for such low value is worth an investigation. As the questions used are from the standard instrument, there need to have a relook for the military environment. There is a requirement to modify questions under this constructs. All other attributes have **α** which are more than 0.5 suggesting higher reliability.

	Cronbach alpha Value
Perception of Emotions	0.682
Managing own Emotions	0.673
Managing other's Emotions	0.126
Utilisation of Emotions	0.51
Self Awareness	0.64
Social Empathy Score	0.58
Self Motivation Score	0.649
Social Skill Score	0.035

Figure 7: Cronbach Alpha for Various Constructs

EI Scores

As each question have a maximum value of 5, we have computed overall scores for our data sample for various groups on a percentile score as shown in Figure 8.

On a Percentage Score	Self Awareness Score (Max-40)	Social Empathy Score (Max-25)	Self Motivation Score (Max 40)	Social Skill Score (Max-25)	Perception of Emotions (Max - 35)	Managing own Emotions (Max - 40)	Managing other's Emotions (Max 35)	Utilisation of Emotions (Max 20)
Overall	77.5	75.7	80.9	76.3	76.8	80.3	76.8	77.2
Air Force	79.4	76.5	80.9	80.0	77.5	80.9	79.6	79.4
Army	78.6	77.7	82.1	75.6	79.0	81.6	76.1	78.3
Navy	76.3	75.0	80.6	77.0	77.1	80.0	77.1	73.8
Civil Service	72.5	64.0	73.8	77.0	65.7	74.4	75.0	73.8
Friendly Foreign Countries	74.4	73.5	80.3	74.5	72.9	78.1	77.1	74.4

Figure 8: EI Attribute's Percentile Score for Various Groups

It indicates that the majority is more than 75% on all attributes. It is observed that most of these officers have **high self-awareness**. These successful leaders are found to regulate their own emotions and develop a 'holding environment' culture. They have a strong sense of their capabilities; recognize their feelings, beliefs, and behavioral effects. These officers also show **high social empathy** suggesting that they are thoughtful and consider the impact on the group before a decision is taken. **Higher self-motivation** is also observed among our respondents. They exhibit qualities to control their disruptive emotions and impulses, maintain high standards of honesty and integrity. It also gives an indication that manifests their abilities to adapt their behaviors in changing situations (Undoubtedly an essential quality of disciplined military personnel). The higher Social Skill Score does suggest the capabilities to inspire and lead the group, build

effective interpersonal relationships, dialogue convincingly, and build an effective team. The comparison is also made to understand how these attributes vary across the services. Insignificant variation is seen across the three services on most of the attributes. Few findings are worth mentioning:

- Self-motivation score is highest among Army officers.

- Social Skill score is found to be higher among Air Force officers.

- Army officers are found to manage their emotions well compared to other service officers.

- Air Force officers have scored well while managing other's emotions.

The study has indicated that high scale scores are associated with greater optimism, greater control, and decision-making, and less impulsivity. The awareness and regulation of emotions help to create a better working environment within the group thereby enhancing the group effectiveness (Bartram, 2005).In order to understand the relationship among these attributes, Pearson's Correlation is worked out among the 8 constructs as shown in Figure 9. Social Skill Score is found to have a low correlation with all other attributes except with managing others' emotions. This brings out a clear distinction of professionalism Vs Social relation. A person ability to connect well on a social front is not linked with his other EI attributes. **Self-motivation score is found to have a high correlation (.945) with managing own emotion.** Thus, by enhancing the EI of a person, his or her motivation level can be enhanced significantly. Perception of Emotion also has a high correlation (.869) with Social Empathy Score. Social skill score is found to have a low correlation with the utilization of emotions. **The ability of a person to understand the mood and emotion of others can provide a positive impact on team building.**

Correlations								
	SAS	SES	SMS	SSC	Perception of Emotion	Managing own Emotion	Managing others Emotion	Utilisation of Emotion
Self Awareness Score (SAS)	1							
Social Empathy Score(SES)	.358**	1						
Self Motivation Score (SMS)	.734**	.378**	1					
Social Skill Score (SSC)	.224	-.008	.209	1				
Perception_of_Emotion	.530**	.869**	.540**	.079	1			
Managing_own_Emotion	.748**	.339*	.945**	.273*	.445**	1		
Managing_others_Emotion	.489**	.272	.420**	.754**	.208	.456**	1	
Utilisation_of_Emotion	.887**	.230	.611**	.150	.405**	.563**	.284*	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Figure 9: Inter-Correlation Matrix across EI Attributes

Stress and EI

Stress is a phenomenon, which affects all human beings. Stress is also an individual perception, implying that a stressful situation for one person need not be for another. Physical and mental makeup of an individual goes a long way in combating stress. In our study, we have identified stress resulting out of (a) Operational factors, (b) Social factors, (c)

Human Resource Management, and due to (d) Role of Higher Headquarters. In the present work, the details of these findings are not placed considering the sensitivities involved. But, what is important to understand that leaders do face the challenge to handle the outcome of these stress factors through their understanding of EI.

Core Value of a Leader

The yardstick to measure good leadership is the culture of enduring excellence, which a leader leaves behind after he or she is long gone after the scene. The qualities and skills of a leader are not intrinsic but they are developed over many years of grooming, training, experience coupled also with flair and charisma. In other words, it makes an amalgam of qualities to make an effective leader. This overall mix of the qualities is very much dependent on the role which the officer is expected to play. The question was put to mention five traits that every military leader should have. **There is an overwhelming response towards integrity, wisdom, truthfulness, hard work, and passion** apart from a long list of desired qualities. The list of desirable traits is placed at Fig 10. The preferred list of qualities is a reflection of the multifarious roles an officer is required to play. Attributes for military leaders are focused on the character, presence, and intellectual capabilities. The leader needs to utilize the desired attributes depending upon the situation. The desirable lists are those traits that "would-be" leaders might hope to possess or wish to cultivate if they want to be perceived by others as leaders. Trait theory deals with the capacities, talents, and person of the leader. Respondents were asked to rank order the attributes of an inspirational leader. The analysis of it is presented in Fig 11. Integrity and professionalism top the list in all category. While Army views sincerity and courage as the next attributes, Air force views composure& confidence and dedication to the mission, and Navy views dedicated to mission and communication skill in order of priority. Physical fitness is ranked lower by IAF compared to other services. Intelligence is graded low by Army. This also explains the role of the respective armed forces in the war. There is an overwhelming response on traits like **Integrity, honesty, truthfulness, Justice, Hard Work, Visionary, Wisdom, Professionalism, Communication skill, Trust, Loyalty, Courage, Clear thinking, Decision-making capabilities** etc.

Figure 10: Core Value of Military Leader

Overall	Army	Air Force	Navy	Friendly Foreign Country	Civil Services
Integrity	Integrity	Integrity	Integrity	Integrity	Integrity
Professional knowledge	Professional knowledge	Professional knowledge	Professional knowledge	Intelligence	Visionary
Sincerity	Sincerity	Composed & Confidence	Dedicated to Mission	Dedicated to Mission	Professional knowledge
Composed & Confidence	Courageous	Dedicated to Mission	Communication Skill	Communication Skill	Sincerity
Visionary	Composed & Confidence	Visionary	Sincerity	Determination	Communication Skill
Creative	Visionary	Sincerity	Intelligence	Visionary	Creative
Determination	Creative	Communication Skill	Innovative	Military Bearing	Courageous
Dedicated to Mission	Physical fitness	Intelligence	Physical fitness	Professional knowledge	Intelligence
Intelligence	Determination	Courageous	Composed & Confidence	Physical fitness	Innovative
Communication Skill	Dedicated to Mission	Passionate	Caring	Courageous	Caring
Courageous	Communication Skill	Creative	Courageous	Innovative	Warm and Radial
Innovative	Intelligence	Innovative	Visionary	Sincerity	Coach
Military Bearing	Military Bearing	Physical fitness	Creative	Creative	Passionate
Caring	Caring	Caring	Coach	Coach	Physical fitness
Warm and Radial	Passionate	Warm and Radial	Military Bearing	Composed & Confidence	Dramatic Skill
Passionate	Radial	Coach	Dramatic Skill	Passionate	Resilient
Physical fitness	Coach	Military Bearing	Warm and Radial	Caring	Composed & Confidence
Coach	Resilient	Dramatic Skill	Passionate	Dramatic Skill	
Dramatic Skill	Innovative	Resilient	Resilient	Resilient	
Resilient	Dramatic Skill	Determination	Determination	Warm and Radial	

Figure 11: Rank Order of Leadership Attributes Across the Services

Hypothesis Testing

Table 1: Level of Significance on the Chi-Square Test: Emotional Intelligence Factors

Que	'p' value	Que	'p' value	Que	'p' value
1	0.427	10	0.134	19	0.279
2	0.743	11	0.834	20	0.149
3	0.543	12	0.452	21	0.521
4	0.857	13	0.329	22	0.297
5	0.930	14	0.538	23	0.038
6	0.949	15	0.133	24	0.754
7	0.337	16	0.695	25	0.076
8	0.378	17	0.337	26	0.861
9	0.970	18	0.033	27	0.329

Chi-Square test is carried out for each question across three services. The chi-square significance test measures the likelihood that the observed association between the independent variable (e.g.,'Questions 1 to 27') and the dependent variable (e.g., 'across different organizations such as Army, Air Force, Navy') is caused by chance. The analysis has indicated that there is no significant difference of EIacross the three services at 5% level of significance except for Q18 and Q23 as summarised in Table 1. Hence, the Null Hypothesis Ho1, i.e. EI level of officers are **not same** across three services, **can be rejected at 95% confidence level**.

Table 2: Level of Significance on the Chi-Square Test: Perception of Organization Effectiveness

Que	'p' Value	Que	'p' Value
1	0.033	9	0.984
2	0.630	10	0.376
3	0.749	11	0.355
4	0.579	12	0.774
5	0.688	13	0.402
6	0.367	14	0.508
7	0.461	15	0.102
8	0.615		

Perception of Organization Effectiveness was captured in part III through Q1 to Q15. The chi-square test of homogeneity is presented in Table 2. The analysis has indicated that there is no significant difference across the three services at 5% level of significance. Hence, the Null Hypothesis, i.e. **Ho2**: Perception of Organization effectiveness **is different** across three services **can be rejected at 95% confidence level**.

Relation between EI of Leaders and Organization Effectiveness

The old adage that "the leader must know his men" is all the more true. The commander, therefore, would have to refrain from hasty decisions; analyze each problem in greater detail and try and bring compatibility between the service aims and the individual goals. For this, he needs to have a positive attitude and a good understanding of human affairs. The analysisindicates that senior armed forces officers have high EI scores on key attributes. It is heartening to find that 90% of officers expressed confidence of existing fairness in the system. The data analysis revealed a high correlation between EI and Org Effectiveness. Overall effectiveness stands at 4.18. Data analysis of leadership attributes liked by the soldiers is presented in Fig 12. The graph is shown above clearly brings out the **essential qualities of a military leader**. These are (a) **Professionalism** (b) **Trustworthiness** (c) **Team leader** (d) **Passionate and Caring** and (e) **Impartiality**. These can be described as a basic building block of leadership that facilitate an organization's effectiveness.

Figure 12: Leadership Attributes Valued by Soldier

CONCLUSIONS

Today's military needs both, excellent leadership and efficient management. Officers who display superior EI are found to lead their troops well and achieve organizational goal. In the Armed forces, leader development is achieved through a lifelong synthesis of the knowledge, skills, and experiences gained through institutional training and education, operational experience, and self-development. Emotional intelligence is found to be an important factor in leadership. The five aspects of EI are found to be very high (close to 80%) by the leaders. Self-motivation is found to have a strong correlation (**r=0.945**) with managing own emotion. Military leadership is expected to not only win wars but also build a powerful war machine through effective planning, policies, and exceptional man management. It is evident that though Indian military leaders are very high on emotional competency. The utilization of emotions and managing other's emotion are also found to be high bringing out the importance of high EI to become an effective leader. To achieve the above, the regular training curriculum must be integrated into the leadership training process for the armed forces.

Scope for Future Research

Extending the work to include data from operational units of Army, Air Force, and Navy through a closed cohort design can provide a better understanding of the subject. The work can be considered complete only when the **5 M's** of root cause analysis i.e.Man, Machine, Method, Material, and Management analysis is carried out.

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