Impact of Need Pattern on Team Effectiveness:
A Study in Indian Perspective

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Abstract
This Study was conducted in Indian public and private service and manufacturing organizations to know the varying need pattern present in the executives. Simultaneously their perceptions regarding the effectiveness of their team were also collected using questionnaires. The collected data were analysed to explore the association between the Need Pattern and Team Effectiveness. A total of 65 samples were collected using two standardized scales. The NPS (Need Pattern Scale) developed by Sanghi (1998) and the TEAM (Team Effectiveness Assessment Measure) developed by Pareek (2002). Data analysis was performed with the help of SPSS 16 and Minitab to find out the relationship between the two variables and the relationship amongst the factors. Tests like correlation, Regression, ANOVA were used for the purpose. The detailed analysis of various factors have been performed and discussed in the light of literature.

Keywords – Need Pattern, Team Effectiveness, Cohesion, Confrontation, Need for Achievement, Need for Power.

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Introduction
Need Pattern: A force that account for stimulation, choice, direction and persistence of behaviour is known as motivation. Once the art of influencing behavior is learnt by the organization, the gap between individual and organizational objective decreases. Answer to 'what motivates people', is a key to success. According to McShane et al. (2006), Needs are deficiencies that energies or trigger behaviors to satisfy those needs. Stronger the needs, the more motivated the person to satisfy them. According to Fincham and Rhodes (2005) there can be two categories of motivational theories, one is Content and other is Process. The underlying assumption of content theories is that same set of needs are present in all individuals. Process theories assume that individuals differ in terms of their needs and this difference is due to cognitive process.

McClelland's Theory of needs focuses on three needs Need for Achievement (nAch); Need for Power (nPow) and Need for Affiliation (nAff). The theory was developed by David McClelland and his associates. Need for Achievement is the drive to excel, to strive to

succeed, to have achievement against standards. Need for Power is to make others behave in a way in which otherwise they would not have been behaved. Need for Affiliation reflects the desire for close interpersonal and friendly relationships (McClelland, 1961, 1975; Atkinson and Raynor, 1974; Stahl, 1986). Patterns cover the real feelings held in an unhealed, spinning state. Every individual has a baggage of motives awaiting gratification; they become a pattern, and energize behaviour. Identification of such pattern and fulfilment of those motives turns a person towards better performance adjustment and satisfaction (Sanghi, 1998). The Need for security is common in every individual; as he grows older, the concern increases. More frustration leads to increased aggression in life and makes the person aggressive.

Team Effectiveness: A Team is built by fostering trust, communication and cooperation to increase efficiency and improve performance which in turn brings cohesion. Individual and Collective motivation of members in result-oriented teams render impressive results. Teamwork is the ability to achieve uncommon results using common people by directing individual objectives towards organizational objectives. Team spirit can be gained by identifying individual members' needs and skills; therefore no member of a team is useless. Teamwork is a driver of competitive improvement.

The common features of team-working: Workers are responsible for reducing errors; programs for intensifying work; output and defects closely monitored; focus on motivational and behavioural factors such as security and advancement. The effectiveness of team-working depends on the meaning of 'Team' (Fincham and Rhodes, 2005). Teams are different from traditional work groups. Team consists of small number of people committed to a common purpose, performance goals and approach for which they are mutually accountable (Katzenbach and Smith, 1993). Trust increases cooperation thereby reducing the need to monitor the behaviour of each other. Traditional way of performance evaluation can be improved to reflect team performance, (Johnson, 1993 and McClurg, 2001). A team with more leaders than activities to be lead will be having tension and the team will lose effectiveness if the tension is not relieved (Eckes, 2003).

Literature Review
Need Pattern: The achievement motive is a socially learned need acquired quite early in life, during the period of childhood (Atkinson and McClelland, 1948). According to Gee and Burke (2001) Money as motivator do not achieve 100% effort from employees. Managers are advised to focus on the human needs, hopes and aspirations and sense of fulfilment of employees to achieve 100 % efforts from them. Realising the potential of employee will lead to Realization of the employee's higher needs of recognition and self-fulfilment. If Employees are able to satisfy their needs indirectly, by monetary compensation then greater emphasis on monetary incentives are paid to attract individuals who value economic wealth more highly (Perry and Porter, 1982).

Haines et al. (2008) studied the significance of intrinsic motivation to gain efforts from the individuals for the challenges presented to them. Ryan and Deci (2000) discussed that internally or intrinsically motivated individuals seek and conquer optimal challenges and high level of interest, excitement and confidence prevails in them. Further research indicates that individual exert high efforts in intrinsically interesting challenges regardless of

external evaluation of their efforts (Brickner et. al., 1986). Kalra (1998) asserts that the comfort needs are automatically satisfied due to technological development and hence the concept of human resource management has become outdated. He concluded by a study that the prime objective of an employee is personal growth with earning above average wage. Korman (1970) advocated the applicability of Frustration, aggression Hypothesis to the behaviour at work.

Team Effectiveness: Performance of a team depends on its members' knowledge, skills and abilities (Hirschfeld et al., 2006). It is beneficial to consider individual preference to work in team or alone while selecting the members (Shaw et al., 2000, Kiffin-Peterson and Cordery, 2003). Organizations whether Industrial, governmental or educational, use teams for improving efficiency of their business. Wastage of resources, falling short of performance objectives, need of rework designs, and extended time to market are resultants of ineffective teams. Identifying the predictors of effective team before the team is assembled, can be a proactive approach to improve team effectiveness. This can also be a tool for choosing team members (Ross et al., 2008). Social interdependence exists when individuals share common goals; each individual's outcomes are affected by actions of the others (Johnson and Johnson, 1995). Effective interdependence depends on the intrinsic motivation of team members and the force it places on the team in achieving the desired common goals (Johnson and Johnson, 1999). Interdependence can be positive (which results in promotive interaction) or it can be negative (which results in opposition or conflicting interaction). A state of no interdependence (which results in an absence of interaction) can also be there (Johnson and Johnson, 1995).

Methodology
Study: This study analyses various types of needs (Need pattern) present in Indian executives and their Team Effectiveness; and explores the impact of Need Pattern on Team Effectiveness.

Objectives:
- To study the Need Pattern of Executives in Indian public and private manufacturing and service organizations.
- To study the Team Effectiveness of Executives in Indian public and private manufacturing and service organizations.
- To study the impact of Need Pattern on Team Effectiveness.

Hypotheses:
H1: There is significant difference amongst the perceptions of individuals regarding different
    type of needs.

H2: The Need for Security is negatively related to Team Effectiveness.

H3: The Need for Aggression does not affect Team Effectiveness significantly.

H4: The Need for Achievement significantly affects Team Effectiveness.

H5: Team Effectiveness is significantly affected by Need for Power.

H6: Need for Affiliation does not affect Team Effectiveness significantly.

Sample: The elements of the universe are comprised of executives of Indian organizations, total of 65 samples were collected using convenience sampling. The respondents were form varying Age groups, with different educational backgrounds; different years of experiences, but all were male. (Table 3.4.1: Demographic Table).

Data Collection Tools: The responses were collected through 2 standardized scales.
- NPS (Need Pattern Scale) by Dr. (Mrs.) Seema Sanghi, 1998, Total 30 Item and 5 Factors namely Need for Security= n(Sec), Need for Aggression = n(Agg), Need for Achievement = n(Ach), Need for Power = n(Pow) and Need for Affiliation = n(Aff).
- TEAM (Team Effectiveness Assessment Measure) by Prof. Udai Pareek, 2002. Two Dimensions namely Team functioning (3 factors: Cohesion, Confrontation and Collaboration) and Team Empowerment (4 factors: Task Clarity, Autonomy, Support and Accountability).

Data Analysis: The responses are presented in pie charts and Analysis has been done by SPSS 16.0 and Minitab, and the tests like Correlation, Regression and ANOVA have been performed to obtain the results.

Results and Discussion

Need Pattern and Team Effectiveness Total Scores: The sum of total Need Pattern Revealed by the respondents is 39% only (Figure 1). The team effectiveness (Figure 2) is also found low (42%). An enterprise cannot make any progress without well trained, efficient and adequately motivated work Team (Ganapathi and Krishnamoorthy, 2010). Management should find out what satisfies each employee, as people go to work to satisfy their needs. In this study the patterns of need are diverged and that is why the total score is so less.

Need Pattern Factors: The factors contributing to the total need pattern is shown in Figure 3. The highest is of Need for achievement (26%, 322), Followed by the need for power (23%, 279). Respondents have somehow equal need for Security (18%, 218) and Affiliation (18%, 226). Lowest is the need for aggression (15%, 182). People with high need for achievement are interested in personally doing well and they are not into influencing others to do well. Therefore high achievement need oriented people are not necessarily good managers in a large organization (McClelland and Burnham, 1976, Boyatzis, 1984). Here also highest is need for achievement. According to Winter (2002), the need for affiliation and need for power are closely related to managerial success. High need for power and low need for affiliation indicates best managers.

In our study also the executives revealed high need for power (23%) and low need for affiliation (18%). Alderfer (1969) emphasizes that people's behavior is mobilized by their tendency to meet unsatisfied needs. Therefore, the people who have need for power and of being their own bosses start their own business and become entrepreneurs. Hawthorn Studies suggested developing a climate that could meet the social needs of workers (Agarwal and Kapse, 2010). The low need for affiliation may however indicate not being

dependent on group and prefer to work alone. The need for security is found to be very less (18%). According to Sanghi (1998), the high need for security signifies worry for future, social prestige, financial security, job security etc. This indicates that executives are having enough security about their job and in other aspects. According to Herzberg et al. (1959) security and safety are satisfiers and they do not assure output the way "motivators" like responsibility and recognition do. Therefore lower need for security is not contributing to increase the team effectiveness. Any form of aggression such as physical abuse, verbal attacks can be costly to business (Neuman and Baron, 1998). The violation of contracts or a mismatch of expectations between the employer and the employee is an antecedent of aggression (Morrison and Robinson, 1997). The Executives of India have however shown lesser need for aggression.

Team Effectiveness Factors and Dimensions: Total two dimensions of Team Effectiveness (Figure 5 and 6, Team Functioning and Team Empowerment) are measured. In total the seven factors (Figure 4) are measured. Kolodny and Kiggundu (1980) in their study have shown that cohesive teams had greater productivity in uncertain environments than teams with members who behaved badly and in a stable environment; the cohesiveness had no influence on the productivity of the team. As shown in Figure 4, the cohesion is found to be only 14% (4581.25). The procedures and actions of productive conflict resolution result in problem solving facilitation, increased cohesiveness, alternative position exploration, increased member involvement and enhanced decision-making process, (Capozzoli, 1995).Here the scores of confrontation (4531.2,14%) and cohesiveness (4581.2, 14%) shows that Cohesiveness is low because the conflicts are not productively resolved amongst the respondents. According to Johnson et al. (2002), in virtual environment the teams need quick redefinition of their process, familiarization with various technologies, and efficient collaboration among team members. Collaboration is needed when the individual cannot carry out the tasks alone. Here the Collaboration (4450, 14%) is found to be low as the respondents are in face to face contact and at the same time there is increased confrontation.

According to Yang and Choi (2009) there can be four dimensions of empowerment, namely autonomy, responsibility, information, and creativity. Autonomy brings a freedom to schedule the work and decide own pace of working (Medcof, 1989). The respondent executives have shown only 13% (4350) autonomy whereas accountability (15%, 4762.5) is found higher than it. The Task Clarity (5175, 16%) is the highest amongst all the factors but without autonomy the performance of even clear tasks will be hindered. Highly heterogeneous teams (in gender and functions) are more supportive and effective in comparison to low heterogeneous teams (Drach-Zahavy and Somech, 2002). The demographic profile of the respondents reflects moderate heterogeneity in terms of their qualifications and Experience. In terms of gender there is 100% homogeneity and therefore the support score is not so high. Cunningham et al. (1996) have argued that a reallocation of responsibility to a lower level is a vital element for successful team empowerment. In this study low autonomy and high confrontation could be the reason behind low empowerment and team effectiveness of the respondents.

Need Pattern and its impact on Team Effectiveness (TE)

Table 1: ANOVA test performed between the factors contributing to the overall need pattern shows a significant difference of perception amongst the respondents regarding different dimensions of need pattern, $F(4,320) = 24.43$, $p < 0.05$ Thus H1 accepted.

Table: 2, the coefficient of correlation ($r = -0.008$) shows inverse relation between n(Sec) and TE. The coefficient of determination ($r^2 = 0.000$) and the adjusted r^2 (-0.16) indicates n(Sec) has no relationship with team effectiveness.

Table 3: Standardized Regression coefficient ($\beta = $ -0.008, with 0.950 Sig.) is not significant as well. Here the H2 Accepted.

Table 4: $r = 0.062$ shows a positive relation between n(Agg) and TE, $r^2 = 0.004$ and the adjusted r^2 (-0.012) indicates n(Agg) has no significant relationship with team effectiveness.

Table 5: $\beta = 0.062$ with 0.621 Sig. shows that Need for Aggression does not affect Team Effectiveness significantly. Hence H3 accepted.

Table 6: $r = 0.268$ shows a positive relation between n(Ach) and TE, $r^2 = 0.072$ and the adjusted r^2 (0.057) indicates n(Ach) explains team effectiveness with 5.7% determination..

Table 7: $\beta = 0.268$ with 0.031 Sig. found to be significant. Therefore the H4 is accepted here. According Scharge (1965), Strong need for achievement is often associated with better performance in organizations. In this sudy also n(Ach) is associated with effective performance of team.

Table 8: $r = 0.269$ shows a positive relation between n(Pow) and TE, $r^2 = 0.072$ and the adjusted r^2 (0.058) indicates n(Pow) predicts TE with 5.8% determination.

Table 9: $\beta = 0.269$ with 0.030 Sig. is significant. Therefore H5 is accepted. Strong power motive may be expressed in a variety of socially acceptable forms of controlling and influencing others, such as providing service and helping others (Frieze and Boneva, 2001; Winter, 1993). Need for power is found to be a significant predictor of Team Effectiveness, the socially acceptable expression of power motive thus increases the TE.

Table 10: $r = 0.226$ shows a positive relation between n(Aff) and Team Effectiveness i.e TE, $r^2 = 0.051$ and the adjusted r^2 (0.036) indicates n(Aff) explains only 5.1% of TE, rest is unexplained.

Table 11: $\beta = 0.226$ with 0.070 Sig. is not significant. Therefore H6 is accepted.

Managerial Implications and Scope for future work

The study suggests ways to build effective teams by working on the reported weak areas. The diverse need pattern also emphasize to pay individual attention while deciding the motivating perks and schemes. "Management should have as a goal the development of the unique capacities and potentialities of each individual rather than common objectives for all participants" (McGregor 1960). The finding therefore can be used by practitioners to resolve issues related to their motivational programs and teams. Further research can be carried out to see the impact on Team Effectiveness by taking more independent variables and by replacing the currently used independent variable. The sample size can be increased and nature of industries can be different to predict the impact.

Limitations of the study

The study considers only one independent variables i. e Need Pattern; however Team Effectiveness is affected by many other variables like personality, attitude, leadership etc. The data were collected using questionnaires which could be biased and also it is really tough to generalize the results on the basis of a sample size of 65.

Conclusion

Out of the five sorts of needs measured the need for achievement was found to be highest amongst the Indian executives. The developing pace of India also requires high achievement oriented executives; however there is possibility to minimize the need for aggression to further increase the need for achievement. Respondents displayed varying Need patterns and individual needs were found to be different. According to McGregor (1960) "Many managers would agree that the effectiveness of their organizations would be at least doubled if they could discover how to tap the unrealized present in their human resources." Highest task clarity was reported by the respondents but at the same time the autonomy was least scored. But only task clarity is not sufficient enough to make them work. Autonomy is also required along with it. The overall team effectiveness was found below 50% and this should be improved by Indian organizations. Amongst need pattern, the Need for achievement and Power were found to be significant predictor of team effectiveness. The need to excel, to achieve, to succeed and to gain power affects Team Effectiveness significantly. A major part of team effectiveness is thus unexplained with the use of only need pattern as an independent variable and the reason is that team effectiveness is more explained by other variables.

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Figures

Figure 1 : Need Pattern

1227, 39%

■ Need Pattern (out of 1950)
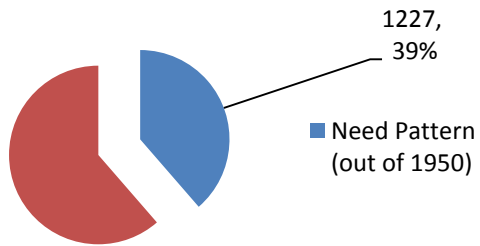
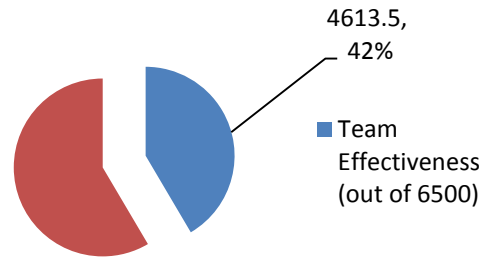**Figure 2 :Team Effectiveness**

4613.5, 42%

■ Team Effectiveness (out of 6500)

Figure 3 :Need Pattern Factors

n(Aff), 226, 18%

n(Sec), 218, 18%

n(Agg), 182, 15%

n(Pow), 279, 23%

n(Ach), 322, 26%
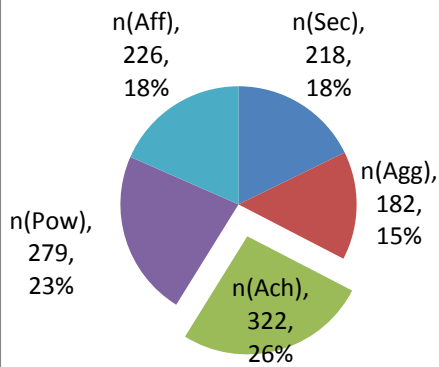
Figure 4: Team Effectiveness Factors

Account ability, 4762.5, 15%

Cohesion, 4581.25, 14%

Confrontation, 4531.25, 14%

Support, 4537.5, 14%

Autonomy, 4350, 13%

Task Clarity, 5175, 16%

Collaboration, 4450, 14%
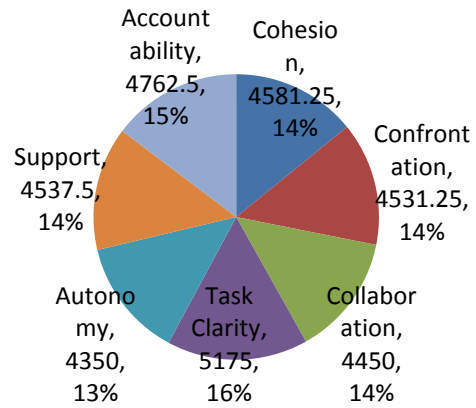
Figure 5: TEAM Functioning Factors

Collaboration, 4450, 33%

Cohesion 4581.2 34%

Confrontation 4531.2 33%
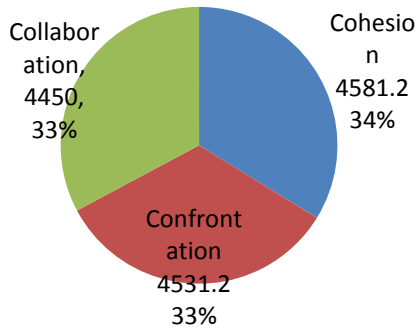
Figure 6: TEAM Empowerment Factors

Account ability, 4762.5, 25%

Task Clarity, 5175, 28%

Support, 4537.5, 24%

Autonomy, 4350,
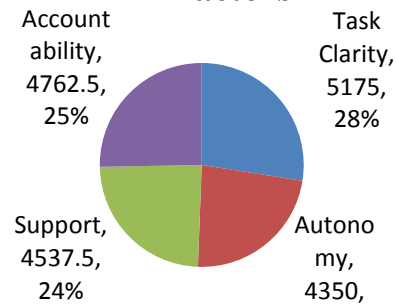
Table 1: ANOVA amongst factors of need pattern

One-way ANOVA: nSecurity, nAggression, nAchievement, nPower, nAffiliation

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Source    DF      SS     MS     F      P
Factor     4  186.82  46.70  24.43  0.000
Error    320  611.78   1.91
Total    324  798.60

S = 1.383   R-Sq = 23.39%   R-Sq(adj) = 22.44%


                                 Individual 95% CIs For Mean Based on
                                 Pooled StDev
Level           N   Mean  StDev  ---------+---------+---------+---------
+
nSecurity      65  3.354  1.576          (---*---)
nAggression    65  2.800  1.622  (---*---)
nAchievement   65  4.954  0.837                           (---*---)
nPower         65  4.292  1.155                   (----*---)
nAffiliation   65  3.477  1.552           (---*----)
                                 ---------+---------+---------+---------
+
                                 3.20      4.00      4.80
5.60

Pooled StDev = 1.383
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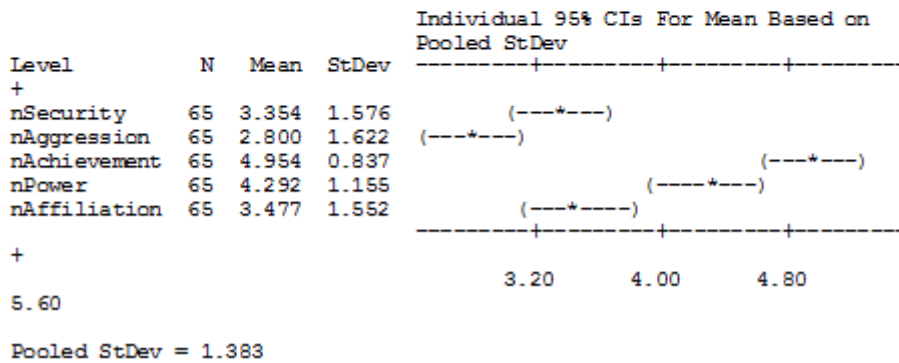Table 2: Need for Security and Team Effectiveness Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	-.008ᵃ	.000	-.016	13.24808	.000	.004	1	63	.950	1.413

a. Predictors: (Constant), nSec

Dependent Variable: TE

Table 3: Need for Security as predictor of Team Effectiveness

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	71.202	3.889		18.307	.000	63.429	78.974					
	nSec	-.067	1.051	-.008	-.064	.950	-2.167	2.034	-.008	-.008	-.008	1.000	1.000

a. Dependent Variable: TE

Table 4: Need for Aggression and Team Effectiveness Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.062ᵃ	.004	-.012	13.22266	.004	.247	1	63	.621	1.440

a. Predictors: (Constant), nAgg
b. Dependent Variable: TE

Table 5: Need for Aggression as predictor of Team Effectiveness

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	69.561	3.291		21.138	.000	62.985	76.137					
	nAgg	.506	1.019	.062	.497	.621	-1.530	2.542	.062	.062	.062	1.000	1.000

a. Dependent Variable: TE

Table 6: Need for Achievement and Team Effectiveness Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.268ª	.072	.057	12.76546	.072	4.858	1	63	.031	1.450

a. Predictors: (Constant), nAch
b. Dependent Variable: TE

Table 7: Need for Achievement as predictor of Team Effectiveness

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	50.168	9.573		5.240	.000	31.037	69.298					
	nAch	4.201	1.906	.268	2.204	.031	.392	8.009	.268	.268	.268	1.000	1.000

a. Dependent Variable: TE

Table 8: Need for Power and Team Effectiveness Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.269ª	.072	.058	12.78077	.072	4.908	1	63	.030	1.371

a. Predictors: (Constant), nPow
b. Dependent Variable: TE

Table 9: Need for Power as predictor of Team Effectiveness

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	95% Confidence Interval for B Lower Bound	Upper Bound	Correlations Zero-order	Partial	Part	Collinearity Statistics Tolerance	VIF
1 (Constant)	57.850	6.133		9.432	.000	45.594	70.107					
nPow	3.058	1.380	.269	2.215	.030	.300	5.817	.269	.269	.269	1.000	1.000

a. Dependent Variable: TE

Table 10: Need for Affiliation and Team Effectiveness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.226ᵃ	.051	.036	12.90601	.051	3.388	1	63	.070	1.483

a. Predictors: (Constant), nAff
b. Dependent Variable: TE

Table 11: Need for Affiliation as predictor of Team Effectiveness

Model	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	95% Confidence Interval for B Lower Bound	Upper Bound	Correlations Zero-order	Partial	Part	Collinearity Statistics Tolerance	VIF
1 (Constant)	64.326	3.952		16.276	.000	56.429	72.224					
nAff	1.913	1.039	.226	1.841	.070	-.164	3.990	.226	.226	.226	1.000	1.000

a. Dependent Variable: TE