Impact of Motives on Cognitive Styles: A Comparative Study as an Opportunity for Sustainable Development

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Abstract

Sustainable development can be attained through knowing the behavior of people at work. With an aim to enhance understanding about the association of human needs with their behavior, more than 400 executives of Indian Manufacturing and IT-ITES (Informational technology enabled service) industries were surveyed. It is observed that Secondary motives/ psychological needs like need for achievement (nAch), need for Affiliation (nAff), need for Power (nPow) and need for Security (nSec) impact the decision making styles (Rational, Intuitive, Dependent, Avoidant and Spontaneous) differently across industries.Thus, the hypothesis of the study "H1: Motives and Cognitive styles of executives are significantly associated across industries" has fetched considerable support. This knowledge about the association of motives with styles may be channelized well for betterment or business sustainability.

Keywords:

Sustainable development; Business sustainability; Motives; Decision-Making style; IT-ITES.

Introduction

Motives or needs drive most behaviors of individuals. While working also, the executives have some secondary psychological motives acquired out of the experience of their lives. Thus their motives may impact their approaches or behaviors. In organizational contexts, decision making is the most crucial activity and almost every working executive has to take decisions either formally or informally. The impact of various motives on the decision making approaches were diagnosed earlier in Verma*et al.*, (2013b). The present study is an extended research relating the association of motives and decision making style with business sustainability and sustainable development. The main objectives here are to study the Secondary Motives and Cognitive Styles of executives of two different Indian industries i.e. Manufacturing and Information Technology (IT) &IT Enabled Services (ITES); to study and compare the association of Motives and Styles across the industries; and to draw the implications for sustainable development therefrom.

Background and Literature Review

Recruiting and sustaining people who are able to respond to and shape the challenges of the future is the key to sustain in long run. HR managers often struggle that how they should integrate sustainable development issues in programmes for recruitment and staff development (Peirce & Madden).The individuals with the capacity to create competitive advantage with the ability to build and influence long-lasting and effective partnerships are essentially required in the workforce. The concept of sustainable development is rooted in a sort of systems thinking and visualizing the association amongst the aspects in terms of an integral framework (IISD, 2012). It implies that seeking association amongst components may render benefits.

Murray's (1938) list of human motives became the inspiration of further studies. McClelland *et al*. (1953) addressed the three important motives of achievement, affiliation and power. Another important motive taken up the relevance in organizations (in addition to achievement, affiliation and power) is the Security Motive (Pareek 2002a; Pareek&Purohit, 2010). All these are psychological needs. Needs are often classified as primary (physiological) and secondary (social and psychological), wherein the secondary needs are the needs of mind and spirit (Sanghi, 1998). Luthans (2002, 2008) state that few human motives (i.e. secondary motives) are learned over the time as the human society develops. Need for achievement (nAch), Affiliation (nAff), Power (nPow) and Security (nSec) are part of secondary needs (Sanghi, 1998) and motives (Luthans 2002, 2008). Security motive have taken up the position in the list in special reference to the Organizational Behavior. The features associated with each of these are listed in Table 1.

Table-1 Literature on secondary Motives (Adapted from Luthans 2002, 2008 &Yukl, 1990)

Need for Achievement (nAch)	**Need for Affiliation (nAff)**
• Doing better than competitors	• Being liked by many people
• Attaining and surpassing a difficult goal	• Being accepted as a part of a group or team
• Solving a complex problem	• Working with friendly & cooperative people
• Carrying out challenges successfully	• Maintaining harmonious terms/avoid conflict
• Developing a better way to do something	• Participating in pleasant social activities
Need for Power (nPow)	**Need for Security (nSec)**
• Influencing people to change their attitudes and behaviors	• Having a secured job
• Controlling people and activities	• Being protected against economic loss
• Being in a position of authority over others	• Having protection against illness/ disability
• Gaining control over information and resources	• Being protected against physical harm or hazardous conditions
• Defeating an opponent or enemy	• Avoiding tasks with a risk of failure or blame

According to Von Winterfeld& Edwards (1986), decision making is a cognitive process which involves evaluation of events to choose courses of action among alternatives. Decision Making Style (DMS) is an individual's typical way of interpreting and responding to decision making tasks (Harren, 1979, Driver, 1979). Thunholm (2004) defined DMS as "the response pattern exhibited by an individual in a decision-making situation. This response pattern is determined by the decision-making situation, the decision-making task and by the individual decision maker". Scott & Bruce (1995) identified five General Decision Making Styles (GDMS) namely Rational, Intuitive, Dependent, Avoidant and Spontaneous.This is most accepted framework in behavioral researches. The features of associated with these five are mentioned in Table 2.

Table-2 Literature on five decision making styles

Rational DMS	**Intuitive DMS**
• Exhaustive information search and logical evaluation of alternatives to choose the best (Scott & Bruce, 1995). • Decision maker accepts responsibility for decision making; anticipates the consequences of previous and current decisions (Harren, 1979). • Decision maker gathers and weighs information carefully, thoroughly and objectively (Cook &Harren, 1979). • DMS relate with extended time perspective, planfullness, and systematic and cautious evaluation (Phillips *et al.*, 1985).	• Attention to details, unsystematic information processing, and reliance on premonitions and feelings (Scott & Bruce, 1995). • To approach the task personally, emotionally, holistically and, drawing on one's feeling (Klaczynski, 2001). • Unconscious process resulted out of experiences (Gilovich*et al.*, 2002). • Decisions based on how things are right now rather than in the future (Phillips *et al.*, 1985). • To scan opportunities and threat, intuition is needed (Eccles &Nohria, 1992).
Dependent DMS	**Avoidant DMS**
• Search for advice and guidance from others before making important decisions (Scott & Bruce, 1995). • Decision maker is passive, compliant and heavily influenced by the expectations of others (Harren, 1979). • Decision maker is influenced by the expectations of others and would be likely to delay choice until the guidance of friends or experts is obtained (Phillips *et al.*, 1985). • Decision maker rescues decision making tasks by asking for the advice of others and this style results in high stress and poor sleep, and dependent decision makers reveal forerunning conditions of stress (Salo&Allwood, 2011).	• Procrastination in decision -making i.e. a tendency to avoid and postpone decisions (Scott & Bruce, 1995). • Negatively related with satisfaction with life, and leads to poor sleep and higher perceived stress (Salo&Allwood, 2011). • Decision maker doubts his or her de cision making ability (Salo&Allwood, 2011). • Associated with negative features like feel regret and tendency to maximize, (Parker *et al.*, 2007). • Positively related with negative stress (Thunholm, 2008). • Decision maker will make every effort to avoid from ha ving to make a decision (Hablemitoglu&Yildirim, 2008).
Spontaneous DMS	
• Sense of immediacy to quickly take a stand and to reach a decision (i.e. to finalize decisions) as quickly as possible (Scott & Bruce, 1995). • An expression of lesser chances of planning the work (Salo&Allwood, 2011). • Decision maker reacts to a total experience rather than components parts, therefore sees holistic (i.e see a big picture) as well as takes quick decisions and move to new goals easi ly and without much consideration (Osipow& Reed, 1985). • Decision makers are quick because they tend to try all their choices in order to understand them completely. Hence they comfortably switch to new choice if the previous is proven wrong (Jaehnig, 2008). • Emergency situations require quick decision making with the limited available information (Cosgrave, 1996).	

Problem Statement

Integration of motives and cognitive styles is rooted in the systems thinking for sustainable development with anticipation of contribution of HRM (Human Research Management) towards driving success. As mentioned earlier, this study relates the business sustainability and sustainable development with the psychological aspects. The case of this study may be framed as the Hypothesis that:

H1: Motives and Cognitive styles of executives are significantly associated across industries.

Methodology

Target Population and Sample

The target population is of Indian executives of Manufacturing and IT-ITES industries. Out of the sample of 407, 231 are from Manufacturing and 176 are from IT-ITES. The data was collected face to face as well as online.Table 3 reveals that most respondents of manufacturing industry are from Junior and middle age-group, are Males, having Lower annual income levels, have earned Management degree. Likewise in IT-ITES industry most respondents are males, having lower annual income group, Management degrees, but majority is from junior age-group and no one is from senior age group.

Table-3 The Demographic Profile

		Manufacturing (N=231)		IT-ITES (N=176)	
Group	Sub Group	Number	Percentage	Number	Percentage
Age	Less than 30 (Junior)	109	47.18%	144	81.81%
	30 to 44 (Middle)	103	44.58%	32	18.18%
	45 and above (Senior)	19	8.22%	-	-
Gender	Male	222	96.10%	119	67.61
	Female	9	3.89%	57	32.38%
Annual Income	Upto 5 Lac (Lower)	137	59.30%	122	52.81%
	5 to 10 Lac (Middle)	72	31.17%	24	13.6%
	Above 10 Lac (Upper)	22	9.5%	30	12.98%
Education	Simple Graduates	30	12.98%	15	8.5%
	Engineers	76	32.90%	28	15.90%
	Post Graduates (PG)	23	9.95%	21	11.93%
	Management PG	102	44.15%	112	81.81%

Survey Scales

Standardized perceptual measures/self-reports namely Need Pattern Scale (NPS) developed by Sanghi (1998) and General Decision Making Style (GDMS) inventory developed by Scott & Bruce (1995) were utilized. NPS measures needs/motives of individuals through total 30 items. Herein the items are categorized as five motives (6 items each) namely need for achievement (nAch), need for affiliation (nAff), need for power (nPow), need for security (nSec) and need for aggression (nAgg). The respondents respond in terms of yes or no, where yes=1 and no=0. The sum of yes or 1 gives the score out of total of 6 for each need. For the purpose of this study and on the basis of literature support all except the items of need for aggression (nAgg) were incorporated in the survey. GDMS measures decision making styles (DMS) of individuals through total 25 items. Herein the items are categorized as five DMS namely Rational, Intuitive, Dependent, Avoidant and Spontaneous. The respondents respond in term of strongly agree (i.e. 5), somewhat agree (i.e. 4), neither agree nor disagree (i.e. 3), somewhat disagree (i.e. 2) and strongly disagree (i.e. 1). The sum of the responses renders the scores out of 25 for each style. All the items of GDMS were included in the survey for this research.

Analysis and Results

Primarily, the reliabilities of the instruments were assessed and assured to be high. Further the main analyses included industry-wise (Manufacturing and Service) calculation of descriptive statistics, correlation and regression analysis. Table 4 and 5 show that in both Manufacturing and IT-ITES industries from highest to lowest the scores amongst motives are of nAch, nPow, nAff and nSec; and amongst styles from highest to lowest the scores are of Rational, Intuitive, Dependent, Spontaneous and Avoidant DMS.Comparatively, all the needs are higher in manufacturing industry except for nSec which is higher in IT-ITES. The intuitive, dependent and avoidant styles are higher in IT-ITES, while Rational and Spontaneous styles of manufacturing executives are higher. Siginificant correlation between the motives and styles exist in both the industries.

Table-4 Descriptive Statistics and Correlation (Manufacturing, N=231)

	Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1	nAch	4.87	1.09	1									
2	nAff	3.66	1.59	.274**	1								
3	nPow	4.43	1.25	.267**	.133*	1							
4	nSec	3.46	1.49	.086	.137*	.174**	1						
5	Rat	22.20	2.69	.131*	.048	.042	-.129	1					
6	Int	18.58	4.12	.001	.152*	.197**	.108	.186**	1				
7	Dep	17.85	4.05	.128	.099	.011	.197**	.280**	.114	1			
8	Avo	11.83	4.67	.027	.097	.092	.347**	-.160*	.094	.250**	1		
9	Spo	16.25	3.66	-.031	.076	.199**	.172**	.079	.275**	.007	.247**	1	
10	NP	16.43	3.36	.595**	.670**	.591**	.604**	.022	.195**	.179**	.245**	.175**	1
11	DMS	86.71	10.8	.082	.174**	.196**	.290**	.381**	.602**	.597**	.604**	.571**	.311**

**p<.01, *p<.05, M= Mean, SD= Standard Deviation, Rat = Rational, Int = Intuitive, Dep = Dependent, Avo = Avoidant, Spo = Spontaneous

Table 4, in Manufacturing Industry, nAch positively correlates with Rational DMS, nAff positively correlates with Intuitive DMS, nPow positively correlates with Intuitive and Spontaneous DMS, nSec positively correlates with Dependent, Avoidant and Spontaneous DMS. In addition here the motives are correlated as nAch with nAff (+ve) and nPow (+ve), nAff correlates with nPow (+ve) and nSec (+ve), nPow with nSec (+ve); and styles are correlated as Rational with Intuitive (+ve), Dependent (+ve) and Avoidant (-ve), Intuitive with Spontaneous (+ve), Dependent with Avoidant (+ve), Avoidant with Spontaneous (+ve).

Table-5 Descriptive Statistics and Correlation (IT-ITES, N=176)

	Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1	nAch	4.58	1.38	1									
2	nAff	3.59	1.69	.209**	1								
3	nPow	4.33	1.52	.510**	.138	1							
4	nSec	3.57	1.61	.382**	.332**	.288**	1						
5	Rat	22.13	3.23	.134	-.076	.295**	.036	1					
6	Int	19.13	3.83	.061	.142	.042	.094	.144	1				
7	Dep	18.54	3.76	.013	.117	-.116	.116	.210**	.145	1			
8	Avo	11.92	4.84	-.003	-.016	-.030	.079	-.146	.134	.145	1		
9	Spo	15.61	4.26	.232**	.102	.163*	.127	-.043	.408**	.073	.350**	1	
10	NP	16.07	4.28	.728**	.636**	.681**	.730**	.131	.126	.053	.012	.220**	1
11	DMS	87.32	11.3	.149*	.097	.109	.162*	.325**	.638**	.530**	.611**	.676**	.185*

**p<.01, *p<.05, M= Mean, SD= Standard Deviation, Rat = Rational, Int = Intuitive, Dep = Dependent, Avo = Avoidant, Spo = Spontaneous

Table 5, in IT-ITES Industry the nAch positively correlates with Spontaneous DMS, and nPow correlates positively with Rational and Spontaneous DMS. In addition here the motives are correlated as nAch with nAff (+ve), nPow and nSec (+ve), nAff with nSec (+ve), nPow with nSec (+ve); and styles are correlated as Rational with Dependent (+ve), Intuitive with Spontaneous (+ve), Avoidant with Spontaneous (+ve).

To explore the percentage of variance caused by motives in the styles, the regression analysis is considered appropriate. Here the beta value (β) denotes the regression coefficient with indicates how much change in the independent variables causes how much change in the dependent variable. Measured in terms of standard deviation the β of 0.43 will indicate that a change of 1 standard deviation in the independent (Predictor) variable will cause0.43 standard deviation change in the dependent (Criterion) variable.

Table-6 Regression results of motives as predictors of styles

	Manufacturing				IT-ITES			
Criterion	Predictor	.	R^2	Adj. R^2	Predictor	B	R^2	Adj. R^2
Rational	nAch	.144*			nPow	.295**	.087**	.082**
	nSec	-.141*	.037*	.029*				
Intuitive	nAff	.128*			nAff	.142†	.020†	.014†
	nPow	.180**	.055**	.047**				
Dependent	nAch	.112†			nPow	-.162*		
	nSec	.187**	.051**	.043**	nSec	.163*	.038**	.027*
Avoidant	nSec	.347**	.121**	.117**	-	-	-	-
Spontaneous	nPow	.174**			nAch	.232**	.054**	.048**
	nSec	.142*	.059**	.051**				
DMS	Needs/NP	.311**	.097**	.093**	Needs/NP	.185*	.034*	.029**

**p<.01, *p<.05, †p<.10

Table 6, In Manufacturing Industry the nAch associates positively with Rational DMS, while nSec associates negatively. Together these two explain significant variance in Rational style attributing that achievement motive enhances Rational style whereas nSec reduces it. Significant variance in Intuitive style through nAff and nPow reflects that a higher level of intuitive style is associated with higher levels of Affiliation motive and power motive. Dependent style has significant variance through nAch and nSec which indicates that achievement and security motive makes the decision maker dependent in their decision making approaches. The security motive is observed to lead to avoidant style. Spontaneous style is observed to be a function of power and security motive. All together the needs explain significant variance in cognitive styles. In IT-ITES industry the nPow is observed to positively predict Rational style. Intuitive style is associated with Affiliation Motive. Dependent style is found to lessen with rising power motive but this style enhances with security motive. No predictive association of any of the motives with avoidant style is observed here. Interestingly higher levels of Spontaneous style are observed to associate with higher levels of achievement motive. Like Manufacturing, in IT-ITES industry also the needs explain significant variance in cognitive styles.

Discussion

In both the Industries,the correlation amongst motives signifies that needs overlap but differ conceptually (Gomes, 2011). Likewise, the correlation amongst styles attributes that styles are mutually inexclusive (Scott & Bruce, 1995). The pattern of highest to lowest motives and styles is similar across industries. Highest nAch revealed by Indian executives of two important industries is in line with the findings of Kunnanatt (2008). The developing pace of Indian economy requires achievement orientation in work force (McClelland, 1961). The preliminary cognitive style of the executives is observed to be rational and their back up styles is intuitive and dependent. In earlier researches also the framework of GDMS has revealed similar preliminary and back up decision making styles of Indian executives for e.g. Verma *et al.*, (2012ac). It attributes that the rational approaches of executives is accompanied with the trust on inner reactions as well as external advises. However,comparatively there is difference in the motives and styles across manufacturing and IT-ITES industries. Moreover the association of motives and styles varies across industries.

The production and sales units determine the survival and success in manufacturing industry. The executives here are ambitious and driven by their production and sales targets. There achievement motive symbolizes solving a complex problem, carrying out challenges successfully and developing a better way to do something (Luthans, 2002, 2008). Findings reveal that in manufacturing industry having achievement motive the rational approach is adopted in decision making. It indicates that having achievement orientation the executives tend to be planful, logical and systematic. They consider various options in terms of goals.Such rational approach enhances with rising levels of achievement motive. Rational model is an ideal approach for making decisions which describes how business executives should take a decision to enhance their productivity. Rational approach when followed as real world bounded rationality,extracts the solutions without getting involved into different complexities and constraints of human minds (Simon, 1997 and Augier, 2001). Looking at the results here it may be deduced that rational DMS is administered by people with achievement motive. Thus productivity in manufacturing industry may be attained through rational approach which is demonstrated by achievement oriented executives. Being rational the decision maker can enhance the quality of alternatives through seeking advices from others. Perhaps therefore the achievement motive is observed to not only enhance the rational but also increase the dependent style. The security of jobs and earnings in manufacturing industry are more

subject to performance in terms of achieving targets. Hence in addition to have achievement orientation the executives are concerned about certainty about their job, finances, prestige etc. Such restlessness and tension about security degrades the rational approach and people with security motive are less rational in their decision making approaches.Moreover the high security motive causes a negative impact on dependent style in manufacturing industry. Alternatively it can be put as the security motive causes delays and avoidance in decision making, hence it negatively relates with rational and dependent styles.

Results also reflect that having power motive the executives adopt spontaneous approaches in their decision making. The working in manufacturing industry requires rational approaches rather than the spontaneous styles. Despite the fact executives who are influencing and who consider themselves better leaders than others tend to take the decisions spontaneously (at spur of the moment). Such an approach is not always appreciable and needed except for few emergency situations. The positive association of security motive with spontaneous approach signifies that out of endanger to protect oneself from uncertainties; the executives with nSec adopt spontaneous styles. This adds to argument that in manufacturing industry security and power motive are not the appropriate drivers of behaviors. Executives here must reflect upon the need of the hour before being spontaneous rather than being driven by their security and power motives. Otherwise, they should adopt rational and dependent approaches driven by their achievement motives.

More rational and less intuitive style is strategic (Elbana&Naguib, 2009). The framework of GDMS also suggests that intuitive style reflects "to consider what one feels right instead of rational reason for a decision" and "to trust on inner reactions while making important decisions". Therefore this cognitive style puts the decisions at stake converse to the rational approach. The power and affiliation motives relate positively with this approach. The power motive as discussed earlier in manufacturing industry is not as important as achievement motive. The executives with power orientation tend to be intuitive, while those with achievement motives stay rational. Hence nPow must be low in executives serving in this industry. Interestingly the power motive in association with affiliation motive explains siginificant variance in intuitive style. The nAff being positively associated with intuitive approach attributes that for the sake of maintaining social contacts and being in good books of all; the executives decide based on their feelings rather than rationally. This again is detrimental for the productivity of manufacturing firms. Hence affiliation motive which gives rise to intuitive approaches is not appreciable to be possessed by executives in manufacturing industries.

In IT-ITES Industry the level of client services and customer handling determine the fate of organizations and executives serving therein. The working here is based on team work, where executives work in sections and subsections with motive to lead better and maintain discipline to attain pointers/titles for themselves and their teams. The executives here are thus driven by power motive. Their power orientation enhances the rational behavior which ultimately adds to successful decisions and effective working.It attributes that IT-ITES executives to stimulate a rational behavior must possess power orientation. However, their power motive tends to degrade the dependent approach. But the nPow makes executives competitive and individualistic which lead to lessen the dependence on others. It is justifiable on account that dependence on others for decision making may be detrimental and may cause stress (Salo& Allwood, 2011). Alternatively the positive association of nSec and dependent approach also reflects that due to high security tensions the dependent approach is adopted, which is not for the sake of improving quality of decisions but for rescuing the responsibility of decision making. Hence in IT-ITES industry the nPow enhances the rational but lessens the dependent approach.

Like manufacturing industry, the affiliation motive in IT-ITES executives also relate positively with the intuitive style, though here the level of significance of this finding is not so firm. But it still alarms for attention to put a check on affiliation motive of executives as it is observed to cause intuitive approach which is impulsive and reflects that "decisions are based on how things are right now rather than in the future" and "decision are made without checking out the facts" (Phillips *et al.*, 1985). Moreover, here the affiliation motive of executives is not attributing their depending orientation because the dependent style is observed to positively relate with security motive and negatively relate with power motive. Therefore it indicates the nAff in IT-ITES industry leads to intuitive style which denotes unsystematic information processing i.e. opposite to the rational approach. Hence, here the power motive must be sought for enhancing systematic rational decisions and for reducing the unsystematic intuitive decisions. Unlike manufacturing industry (where nAch relate with Rational style), in IT-ITES the achievement motive relates positively with Spontaneous style. Though being in services and working in online virtual environment the presence of mind and spontaneity is required, but spontaneous behaviors must be conditioned. For this approach the decision makers should be provided with clear work directives as this style is an expression of lesser chances of planning the work, (Salo & Allwood, 2011). The findings indicate that executives driven by achievement motive demonstrate spontaneous behaviors. Hence achievement orientation should be channelized through the suitable and essential spontaneity. This particular motive (i.e. nAch) is observed highest in IT-ITES executives, hence the organizations must benefit

through this orientation in rendering best solutions to their clients.

Implications, Limitations and Future Research Directions

Implications are for respondents, managers, academicians, researchers as well as practitioners. The manufacturing executives must develop achievement orientation to contribute towards productivity through rational behaviors. IT-ITES executives must possess control or power motive to be better team leaders and they should reflect upon their nAch to demonstrate logic (Rational style). The intuition based on experience can be properly exploited for benefits of the firms. For this, the affiliation or social contacts developed over lifetime must be considered beneficial. Hence executives who have accumulated experience and contacts can be treated as legacy. But usually the affiliation motives must be utilized for team work but it should not let feelings and emotions (intuition) overcome logic (Rationality). Insights are there for managers who are responsible for getting things done at work places. Recruitment, Selection, Induction, Training and Development, all such plans are needed to be worked upon with the motives and styles association perspectives. New job aspirants must be aware about their need pattern and its impact on their decisions in their fore-coming careers. The academicians must channelize the right talent pool through the job profiles of their match, where the motives can help render productive decisions. Organizational development practitioners and consultants may undertake the profiling projects for organizations based on the kind of orientation required for better decisions. Hence sustainable development opportunity can be sought in analysis of motives and styles as it provides a key to integrate sustainable development issues in programs for recruitment and staff development. In other words, sustainable development can be complemented with sustainable HRM i.e. the pattern of planned or emerging human resource deployments and activities intended to enable a balance of organizational goal achievement and reproduction of the human resource base over a long lasting calendar time (Ehnert, 2006). Thus the identification of people with right orientation and behaviors can provide competitive advantage to the industrial organizations. This ultimately is expected to add to the sustainable development of firm, industry as well as economy. Like any other research there are few limitations of the study and implications drawn are subject to those limitations. The study adopts a cross sectional research design where the data has been gathered one time. In absence of longitudinal research design the findings may not be generalized. The data has been gathered at convenience through a voluntary participation in survey. The responses are not free from self-serving biases of the respondents. The constructs of Motives and Cognitions are psychological and vague to trace exactly. The findings are confined to the questionnaire survey items only. A longitudinal research design may be adopted in future to replicate the research. Experimental and situational analysis can accompany the survey method. Future research may incorporate the effectiveness variable to render new dimensions to the association of motives and styles. The nature of work and national settings can be different to further investigate the association of motives and styles.

Conclusion

The study is creating awareness about the psychological needs and decision making styles of Indian executives. Motives and styles are observed to relate significantly and differently across the virtual (IT-ITES) and face to face (Manufacturing) working environments. This provides support for the hypothesis of the study (*H1: Motives and Cognitive styles of executives are significantly associated across industries*). While in manufacturing industry achievement motive relates with rational style; in IT-ITES it relates with spontaneous style. Security motive relates to dependent approach and affiliation motive associates with intuitive style in both the industries. It may be concluded that in production firms the executives must be achievement oriented to achieve their targets well in time and to make productive rational decisions. In virtual work settings of IT-ITES industry the executives should possess presence of mind and for that they should have achievement orientation to serve the client and handle their queries spontaneously. Also IT-ITES executives should have controlling power motive to lead the teams better and behave rationally.

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