



Quest for Different Strategic Dimensions of Channel Management: An Empirical Study

Kaushik Mandal, National Institute of Technology
Gautam Bandyopadhyay, National Institute of Technology
Koushick Roy, National Institute of Technology

Abstract

India has been witnessing a sea change in terms of competition since the decade of nineties. Indian players, especially players of FMCG, Cement & Durable, are compelled to change their functional operations under this high degree of competitions. Therefore, functional operation like distribution management is considered important in terms of effectiveness & efficiency. For the purpose of effective & efficient distribution, marketers have to take not only the care of logistics but also they have to take care of behavioral management of channel partners. Globally accepted literatures have already proposed for strategies of power & influence in this regard. But some of the empirical researches have raised questions on applicability of those strategies in relation to developing nations. Considering this question valid and relevant we have identified our research plan vis-à-vis Indian distribution. For this study we have selected three objectives:

i) Development of scale for identification of channel control strategies of marketer, ii) Identification of strategies for controlling channel partner, and iii) Identify the importance of each specified strategies. For the empirical purpose of present research, we have executed a survey in southern part of west Bengal, a state of India, with randomly selected 166 respondents who are distribution channel partners in profession. We have selected southern part of the state of West Bengal because this region is having representative character of India. For the purpose of attainment of first objective stated above, we have developed a valid and reliable construct by combining items from the globally recognized scales of power & influence strategies. We have reached second & third objectives by using appropriate statistical tools used for Exploratory & Confirmatory factor analysis. Finally, we are able to identify four important strategic-facets namely i) Intelligence ii) Big Bossing iii) Contract Orientation iv) Expert for Indian distributions. Result indicates deviation from the global research outcome. Thus, the present research is very much contributory to academic & management world, especially in reference to developing nations.

Keywords: Influence Strategies, Power Strategies, Exploratory factor analysis, Confirmatory factor analysis, Reliability, Validity.

Introduction

Modern marketing practices across the globe talk about efficiency of distribution management. Objective of timely placement of the right product to right customer group brings challenges for attainment of efficiency in the system of distribution. In fact, conflicts in the distribution system are less physical, more human, in nature. Mostly behavioral reasons are the causes behind channel conflict between marketers and channel partners. As such behavioral management of distribution system is highly required to handle channel conflict between marketers and channel partners.

Indian environment is same as in global context. Moreover, India has been witnessing a sea change in their economic environment from the inception of economic reforms of nineties. Actually since then global players have shown their foot fallings in Indian drawing rooms. Indian customers enjoy wider choices among competitive and equally likely brands. Big shopping malls to village 'hut' have been experiencing a range of competing brands. As a result, they become brand switcher, if not 'split loyal'. This scenario of competition is maximum in India in respect of three industries namely, FMCG (Fast moving consumer goods), Cement & Consumer durable. These three industries are unique in characteristics in India having market dominated by middle class, middle income customer with moderate but not with high capacity of purchasing. Hence customers are interested for cost efficient brand which is also having value in functional as well as non functional dimensions. Therefore, we have learned two important facets of Indian competition. First one, to get & sustain the competitive position in the mind of the customer, availability of the product in the shelf at the point of purchase is minimal or primary condition. Secondly, to acquire a distinct position in the mind of the customer, marketer has to generate functional & non functional values. In this regard cost of the product is definitely a good and important functional value for middle class and middle income customers having moderate power of purchasing.

In this backdrop it is wise to infer that timely supply of the product with efficient mechanism is the key to achieve success in keen competition. Thus it calls for applications of proper behavioral management of the marketers vis-à-vis channel partners. Good behavioral management does simultaneous reduction of channel conflict and increase of motivation among channel partners. Thus motivated channel partners have to follow the guidelines of the marketer to create edge in competition.

But the question comes into our mind that how the channel partners are motivated? Several literatures have answered the question. According to the literature marketer has to employ strategy for motivating their channel partner. Hence, it is imperative to know all such strategies in relation to its application and thus it calls for review of all those literatures.

Literature Review

We can classify the researches in the field of behavioral management of channel easily with three groups. First group of literatures talks about power sources and dependence of channel members. Second group of literature focuses on influence strategy of the channel partners over each other. Third group of researches considers power, power sources & influence strategies are having same perspective and also use for same purposes. Purpose is Compliance of the channel partners in the context of channel management practices of the channel leader (marketer). First group of literatures concentrates on usage of social power in behavioral management of channel. Social power is the concept that has been mostly used by researchers in the field of social

psychology. Also in the literatures of politics 'power bases' are defined, well before management literature. For example Simon (1953) has talked about measurement of power. French & Raven (1959) & Cartwright (1959) have employed this concept of social power for the first time in the literature of management. French & Raven (1959) have identified the five social power bases and these are reward, coercive, expert, referent & legitimate. Later Raven (1965) has added one more power base and that is information exchange. Operationalisation of these social power construct was earnestly required for management practices. Swasy (1979) has generated a reliable & valid scale to bridge the gap between concept and practices in the context of channel management. Ansary & Stern (1972) are pioneer in the field of measuring power in the context of a behavioral management of a distribution channel. For this purpose they were not considering ideas promoted by French & Raven (1959). In fact they have proposed a model, where they have tried to estimate power as a function of weaker channel member's dependence on stronger channel member and sources of power perceived by relatively weaker channel partner over relatively stronger channel partner. The effort they had taken was in vain as they failed to establish any good result. But this result probably would have prompted Hunt & Nevin (1974) to carry out research in the same direction. They have unified the concepts proposed by Simon (1953), French & Raven (1959) and the theory that Ansary & Stern (1972) was interested to promote. Hunt & Nevin (1974) have modified the 'power model' by classifying power into two sources that are coercive sources & non-coercive sources. Further under non-coercive sources they have mentioned reward, expertise, legitimacy & referent power. With the help of a technique called 'multiple classification analysis' they have empirically tested the relationship between power of a channel member and available sources of power. Furthermore, they have identified, in case of a franchisor-franchisee form of distribution channel, that franchisor depends on coercive form of power to control franchisee but franchisee is more satisfied when franchisee is using non coercive form of powers.

Completely different approach has also been seen. In the line consistent with Bacharach & Lawler (1980), Frazier (1983) has critically appraised French & Raven (1959) way of viewing powerbases. According to them power bases mentioned by French & Raven (1959) is more of instrument of power execution and rather less in term of sources of power. In fact, they have assumed for dyadic relationship between two channel partners. Thus they believe role performances of each channel partner are the key to create dependence between them.

Some of the researches are very focused on the application of the social power theory in practice of channel management. Improper control over channel partners may result in to channel conflict. Hunt & Nevin (1974) have introduced the issue by highlighting satisfaction of channel partners. Actually dissatisfaction of channel partner causes conflict. First time Lusch (1976) has measured impact of power sources on conflict within channel. In the same line Gaski (1984) also opined misuse of power would lead to conflict. But he expressed his non acceptance of viewing power and sources of power in isolation. He has opined power manifestation is highly related to exercise of power. Therefore, he has found role of influencing channel partner is more important. Like Gaski (1984), several researchers like Frazier & Summer (1986), Kale (1986) & Frazier et. al (1989) are in favor of the school of thought that is based on interface among influence strategies, power & sources of power.

Also, Frazier & Summer (1986) have advocated for interrelation between power and influence strategies. Empirically they have shown influence strategies are different ways for applying power, either in form of threat or in the form of recommendation. Furthermore, Frazier & Summer (1986) have found negative association between coercive influencing and dealer's perceived satisfaction. According to theory, high coercion of channel leader over channel partner

would lead to low satisfaction of the dealers. Almost similar line of argument has been presented by Kale (1986). Moreover, Kale (1986) has recommended for carrying out research in developing nations with the employment of power & influence scale that are already established on developed countries. He has executed his research on India and found a moderate relation between power and degree of pressure involved in exercising influencing strategies to change channel partner's behavior. Moreover, he found positive associations among various influence mechanisms and also between marketer's power and each of influence mechanism. In his study Kale (1986) calls for carrying out study across several industries in developing nations like India. Frazier et. al. (1989) has also opined that business environment in which channel is operating should be considered for setting channel theory. They have also expressed the need for executing study across several industries.

Third group of literature covers the influence strategies & its usage on management of channel partner's behavior. Boyle et. al. (1992), Frazier & Sheth (1985), Payan & McFarland (2005) are prominent among the list of this group of researchers. Boyle et. al. (1992) studied the influence strategies as a strategic move by which marketer instruct the channel partner to alter their behavior in favor of marketer. This work is highly contributory to the literature because of the fact that they have developed the reliable & valid construct of influence. Keith et. al. (1990) have also found almost the same types of results. According to them channel partner's attitude is dependent on channel partner's dependence on marketer and influence used by marketer. Though they have used the term 'influence', they have actually employed 'power bases' as a construct for influence. In an alternative version Frazier & Sheth (1985) have conceptually shown attitude & behavior about implementation of channel programme designed by marketer and that is dependent on various form of influencing strategies. Payan & McFarland (2005) in recent study have been theorizing the effect of influence strategies on compliance of channel partner. They are in favor of applying non-coercive influence strategies on channel partner. According to the theory, coercive influence acts only in case of high dependence of channel partners over their channel leader.

The commonality find in all three types of literature is in relation to purpose of behavioral management of channel partners by their channel leader (marketer). These three groups of literature are three different ways to meet the purpose. But all these theories have been developed in the context of advanced developed nations. Few authors have carried out research in developing nations. Result found is interesting and calls for further research in the context of channel management of the developing nations. Exposure of channel behavior of Indian distribution channel members of FMCG, Cement & Consumer durables helps us to understand how Indian channel leader (marketer) combines the paths to reach the purpose of effective & efficient behavioral management. Reason behind this combined approach is probably because that both power & influence are used for same perspective and that is to extract obedience of channel partner. Therefore, we believe that empirically we should test how power & influence are positioned in the mind of channel partners. Kale & other authors like Frazier et. al. (1989) are advocating for empirical test results across industries of developing nations. This argument helps us to decide that we should carry out empirical test in our country India. Literature review also suggests to identify two important scales one for 'influence' and another for 'power'. From the review we also find that scales, used by Boyle et. al. (1992) & Swasy (1979) respectively for influence & power, are two good scales in terms of reliability & validity. Thus, if we combine these two scales we would have sixty items in hand. Methodology based literatures suggest, it is not possible for respondents to operate with large numbers of items (Allen & Rao, 2010). Hence, methodological literatures suggest reducing the items by proper item analysis.

Research Objectives & Process Undertaken

Research objectives are three dimensional in nature. First of all we have to develop an instrument (scale) suitable in the Indian context of distribution to identify & measure channel management practices in India. Secondly using this scale we have to identify various strategies of management of distribution channel management in India. Thirdly, we have to measure importance of each of the strategies identified from Indian channel management practices.

In the previous main section we have reviewed three groups of literatures. All these literatures converge to single perspective that how to direct channel partners by the channel leader i.e. marketer. Naturally a research query comes into our mind whether we can develop a single scale which combines scale used for measurement of influence strategies of the marketer & scale deployed for measurement of perception of the dealer in relation to power sources possessed by marketer.

For this purpose (and also to attend first research objective) we have mixed all the items used by both schools of literatures. Thus in the present study we have combined 31 items from the scale used by (Swasy, 1979) & 29 items from the scale used by (Boyle et.al 1992). Our next task was to filter the scale with respect to Indian business environment. It was justified because India is having different cultural identities which resulted in highly inter connected social relationship among populations. Thus we have executed a survey using questionnaire covering all these 60 items. For the purpose of filtration we have employed multiple correlations among all these 60 items. Next we have identified all those items each of which has high (more than .60 correlation) and significant (less than .05 probability value) correlation with at least one of the 59 items. This filtration process generated 12 no of items (See Table: 1) out of initially gathered 60 items.

Table: 1
Items* Considered

| Symbols of Items | Description of items |
|------------------|--|
| POWER 6 | The information provided by company about this situation makes sense. |
| POWER 8 | Being similar to company is good |
| POWER 9 | The information which is provided by company is logical. |
| POWER 11 | Company's expertise makes other channel member more likely to be right. |
| POWER 14 | I want to be similar to company |
| POWER 26 | Company's knowledge makes other channel member right. |
| INFLUENCE 5 | Company refers to portion of our franchise agreement which favor their position to gain our compliance on a particular demand. |
| INFLUENCE 11 | Company makes a point to refer to any legal agreements we have when attempting to influence our actions. |
| INFLUENCE 23 | Company uses section of our sales agreements as a ' Tool ' to get us to agree to their demands. |
| INFLUENCE 24 | Company communicates their ability to "Make Thing Difficult" for our business if specific demands are not met. |
| INFLUENCE 27 | Company states that specific services will be discontinued for not complying to requests. |
| INFLUENCE 29 | Company threatens to reduce the amount of business they will do with our firm, should their demand not be met. |

*Items primarily taken from Boyle et. al (1992) & Swasy (1979).

In the next stage with these 12 items we carried out another survey among the specified respondents with an objective to identify various facets. It is ideal to carry out two surveys one is

pilot kind of survey for the purpose of filtration & next survey for identification of various latent facets behind it. However, for minimizing cost & time, researchers may use one survey in place of two mentioned above. For the purpose of survey among the respondents who are channel participants for the present work, we have decided to execute on south Bengal region of West Bengal. West Bengal is one state which represents cosmopolitan, rural encircled urban area & urban middle class dominated characters of India.

South Bengal region is very much representative of the features stated above. Further we have collected name & addresses of channel participants from three industries FMCG, Cement & Water purifier located in this region from various sources like i) yellow pages ii) respective trade association's directory & iii) executives of major companies of these three industries operating in this region. We have prepared three lists of channel partners of FMCG, Cement & water purifier industries. For water purifier group of channel partner all the 53 respondents have been selected. We have visited personally to all those 53 channel participants and interviewed with structured questionnaire using construct developed for the study. Likewise for cement, 80 respondents have been selected randomly out of which 56 have been responded positively at the time of visit to their place for the purpose of interview. In the similar way, 80 respondents have been selected randomly but only 57 responded positively in time of visit to their place for interview with structured questionnaire having pre-selected construct. In the similar way we have selected 56 samples randomly for the purpose of validity checking. For details of sampling, see Table: 2.

Table: 2
Sampling at a Glance

| Industries | Population | Randomly Selected | Responded | Randomly selected Hold out Sample |
|----------------|------------|-------------------|-----------|-----------------------------------|
| Water purifier | 53 | 53 | 53 | 56 |
| Cement | 117 | 80 | 56 | |
| FMCG | 121 | 80 | 57 | |
| Total | 291 | 213 | 166 | |

It is not out of place to mention that exploratory factor analysis with suitable statistical analysis is mostly useful for the purpose of identification of latent factors (facets) behind. But further we have to confirm the extracted facets (factors) by using confirmatory factor analysis. In between we have to calculate the importance of each of the identified facets by using the philosophy of 'Principal Component Analysis' (Johnson & Wichern, 2008). According to this philosophy proportion of variance of each principal component is considered to be weight (importance) for the same. We can refer Guha & Chakraborty (2002) for similar usage of PCA.

It is highly required to check the reliability and validity of the 'construct' developed in this present work. Exploratory analysis helped us to identify four important facets namely i) Intelligence ii) Big Bossing iii) Contract Orientation iv) Expert. Each of these facets is having some items. Now it is necessary that items within facet should have sufficient inter-correlation among them. It is because; these inter-correlations are denoting internal consistency among the items measuring that factor. In fact analysis in relation to internal consistencies of the items within a factor is known as reliability analysis. Cronbach's Alpha is a statistical measure which examines the average internal consistency among the items. More than .7 value of cronbach's

alpha is considered as acceptable reliability of the factor. For the present work cronbach's alpha for all four factors are more than .70 (See Table No.:4). Thus the factor reliabilities have satisfied the criteria. In spite of good reliability possibilities are there that the factor is not having acceptable validity because reliability is the boundary condition for validity. Actually, acceptable validity of a construct means the construct is able to measure successfully the concept it is used to measure. For this purpose, we were using Campbell & Fiske (1959) criteria for checking of the validity. As per the rule we took one more set of sample responses called 'hold out sample'. Campbell & Fiske (1959) proposed for measurement of validity by two ways namely convergent validity & discriminant validity. Convergent validity is agreement among several attempts to measure same concept (construct). Discriminant validity is the dis-agreement among several attempts to measure various concepts (construct). Severability of attempts means attempts by different samples or attempts by different methods. In the present research we used two groups of samples. One of which is used as sample for research and another is small group of sample used for the purpose of measuring validity. This was also known as hold out sample. We checked correlation between any two items for a particular factor which is supposed to be positive and significant. In the similar way correlation between items of the different factors were supposed to be insignificant. If both the cases received results were matched with the likely result, we considered it as a validity of the model (construct) proposed for. We checked the validity for 12 items. So, responses of actual sample on these 12 items had to be correlated with response of hold out sample for 12 items. Thus we verified 66 ($^{12}C_2$) correlation results to check the validity of the 12 items. The detailed results are presented in Table no. 7 in appendix. In the present case results found were mostly matched with the likely result and thus we claimed the measure was valid. In summary we could safely claim that the entire used construct were valid because in almost all the (90-95% cases) the criteria holds strongly. But the proposed validity of the model was not free from limitations. Confirmatory Factor Analysis could overcome this situation. Diagram 1 in the Appendix shows the research process at a glance.

Analysis & Model Building

Exploratory Factor Analysis

We measure the useful statistics Kaiser-Meyer-Olkin (KMO) to check the appropriateness of sample adequacy. Generally KMO measure is an index used to evaluate the sample adequacy of a factor analysis. A high value (between .5 & 1.0) indicates that factor analysis is adequate in terms of sample (Malhotra, 2009). Value of KMO measure of sample adequacy in case of present research is .701 which signifies the purpose of adequacy (See Table no.:3). Bartlett's test of sphericity is used to check whether the appropriate inter correlation exist for running factor analysis or not. The greater the value of test statistic, factor model becomes more appropriate. The approximate chi-square value is 762.527 with 66 ($^{12}C_2$) degree of freedom, which is significant at .05 level. Thus considering all the above facts, we are eligible to use factor analysis to identify the strategies for management of behavior of channel partner in this present analysis.

Table: 3
KMO and Bartlett's Test

| | | |
|--|--------------------|---------|
| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | | .701 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 762.527 |
| | Degree of freedom | 66 |
| | Significance | .000 |

We use principal component analysis to determine the principal factors. We also use Kaiser (Kaiser, 1958) criteria to identify minimum number of factors that accounts for maximum variance in the data (for all those eigenvalues scores more than 1). Then we have rotated this initial solution by deploying varimax method to select the variables with high loading on a particular factor. The principal component analysis along with varimax rotation reduces the 12 variables in to four factors (See Table No.: 4). All those factors are having corresponding eigenvalue greater than 1. Each factor is composed of variable which is having factor loading of more than 0.50 (Hair et. al 2009). Four factors are extracted with 72.32 % cumulative variance (See table: 4 for the purpose).

Percentage variance explained by cumulative total variance explained for each factor is considered to be the importance of the said extracted factor. Factor 1 represents 37.09% (i.e. 26.83/72.33) of extracted factor's variance explained. Likewise factor 2, 3 & 4 each represents 29.27%, 18.95% & 14.67% respectively.

Table: 4
Result of Factor Analysis & Regression Analysis

| Items | Intelligence | Big Bossing | Contract Orientation | Expert | Reliability (Cronbach's Alpha) | Variance Explained | Importance of the Factor** | R ² |
|--|--------------|-------------|----------------------|--------|--------------------------------|--------------------|----------------------------|----------------|
| POWER 9 | 0.82 | | | | 0.799 | 26.83% | 37.09% | 98.5% |
| POWER 14 | 0.79 | | | | | | | |
| POWER 6 | 0.77 | | | | | | | |
| POWER 8 | 0.76 | | | | | | | |
| INFLUENCE 24 | | 0.86 | | | 0.815 | 21.17% | 29.27% | 96.3% |
| INFLUENCE 29 | | 0.83 | | | | | | |
| INFLUENCE 27 | | 0.82 | | | | | | |
| INFLUENCE 11 | | | 0.88 | | 0.815 | 13.71% | 18.95% | 96.2% |
| INFLUENCE 5 | | | 0.85 | | | | | |
| INFLUENCE 23 | | | 0.77 | | | | | |
| POWER 26 | | | | 0.92 | 0.796 | 10.61% | 14.67% | 97% |
| POWER 11 | | | | 0.87 | | | | |
| Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. | | | | | | | | |
| Rotation Method: Varimax with Kaiser Normalization | | | | | | | | |
| Rotation converged in 5 iterations. | | | | | | | | |
| ** (% Variation Explained by the Factor/Total Cumulative Variance) | | | | | | | | |

This analysis yields four interpretable factors contained four, three, three and two items respectively (See Table no.:4). We have named latent factors for the purpose of unique representation of the same.

Latent factor behind factor 1 represents power of Intelligence of the channel principal over channel subordinate. This indicates channel principal's intelligence power in respect of leadership & knowledge of the business which is being used to control the channel participant. So, we have named the latent factor as 'Intelligence'.

Similarly items under factor 2 describe the latent factor of big brother attitude of the channel principal over channel subordinate. This indicates role of a channel principal as big brother in a family to control the channel participants. As a result, we have named the latent factor as 'Big Bossing'.

Items under factor 3 covers channel principal's instructive behavior. It represents influence strategy based on legal contract between channel principal and channel subordinates. Hence, we have named the factor as 'Contract Orientation'.

Factor 4 expresses knowledge & skill of the expertise which is valuable for smooth running of the business. That is why we have named this factor as 'Expert'.

Exploratory results shows each of the extracted factors are either generated by the items of power scale or developed by the items of influence scale. Therefore, we can infer safely that 'power' & 'influence' are positioned distinctly in the mind of channel participants. Further statistical analysis makes the conclusion more concrete.

Statistical Explanation

We use regression technique to understand the explanatory power of independent variable which is unobserved (factor score) by dependent variables and which is the observed score on item comes under said factors. We get R^2 value of four factors are 98.5%, 96.3%, 96.2% & 97% (See Table No.:4) which replicates a better predicts of the different power used by channel principal. It proves how observe variables perfectly converge to unobserved one. We have also examined the regression coefficient (β) by t-test which measures the significance of the partial correlation of variables reflected in each factor.

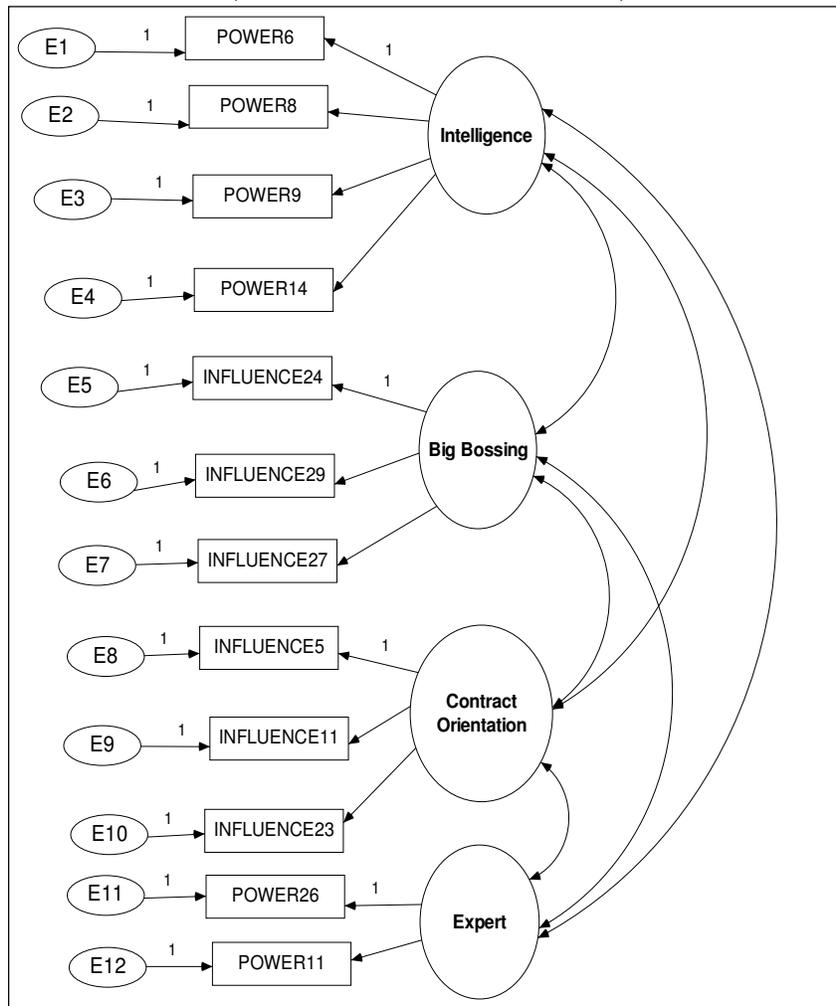
In each of the occasion we found value of F statistics is large and which indicate regression sum of square is very large compare to error sum of square. Hence, we can infer that model is well fit. In the meaningful term it gives us idea that observed variables have defined well the unobserved construct.

Confirmatory Factor Analysis

We conducted Confirmatory factor analysis (CFA) on the result of exploratory factor analysis by using software called analysis of moment structure (AMOS version 7). Generally we use CFA to confirm the exploratory factor model. CFA is same as a structural equation modeling (SEM) technique. We use CFA to determine the goodness of fit between hypothesized model & sample data. For goodness of fit statistics, we focus on three models. The three models are hypothesized model (our test model), saturated model and independence model or null model. The null model means where the correlation among the variables are zero i.e. all variables are independent. In case of saturated models the number of estimated parameters equals the number of data points (i.e. variance and covariance of the observed variables).

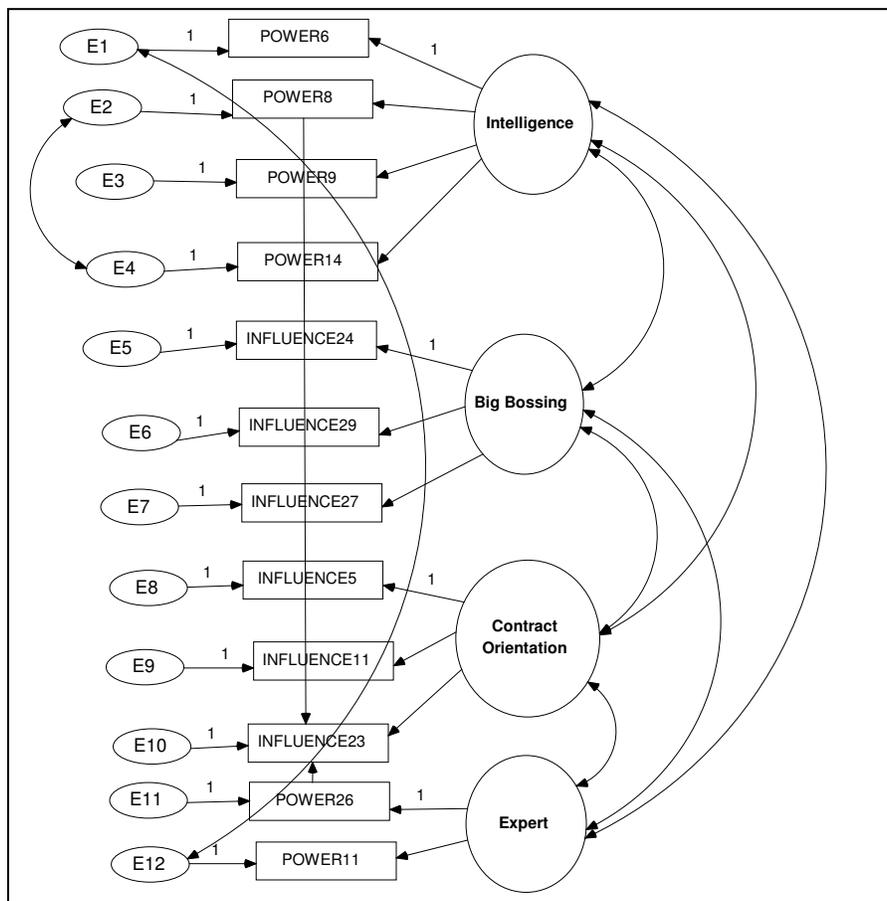
Focusing on the exploratory factor analysis using AMOS, we get the first set of fit statistics which are given in table no. 6 in appendix. From the result it is clear that CMIN which represents the discrepancy between the unrestricted sample covariance matrix S and the restricted covariance matrix $\Sigma(\Theta)$. In large sample, CMIN is distributed as a central χ^2 with degrees of freedom equal to $\frac{1}{2} p(p+1)-t$, where p is the number of observed variables and t is the number of parameters to be estimated (Boolen, 1989a). In general the test statistic is $H_0 : \Sigma = \Sigma(\Theta)$ is equivalent to the hypothesis that $\Sigma - \Sigma(\Theta) = 0$, follows a central χ^2 with $p(p+1)-t$ degree of freedom. If H_0 is accepted i.e. higher the probability associated with χ^2 , the closer fit between the hypothesized model (under H_0) and the perfect fit. We can add a path to a factor model based on the combined understanding of theoretical, logical and empirical knowledge. Modification indices guide us for effective path addition to the model. Using AMOS we get idea for addition of path to improve the goodness fit of the proposed factor model (Byrne, 2010).

Figure: 1
Initial Model Derived From Exploratory Factor Analysis
(Without Modification Index)



Four factor solutions are derived from exploratory factor analysis (EFA). Initial EFA result a poor model fit (Chisquare:106.355, df:48; P:.000; GFI:0.901; AGFI:0.839; PGFI:0.554; RMR:0.156; NFI:0.865; CFI:0.919; TLI:0.888; PNFI:0.629; FMIN:0.645; RMSEA:0.086; AIC:166.355; ECVI:1.008). Based on the modification indices (MI), covariance & regression path we have modified the result (See Figure: 2).Final model shows an excellent fit in data, where Chi-square: 31.302, df: 44; P: 0.925; GFI: 0.97; AGFI: 0.947; PGFI: 0.547; RMR: 0.093; NFI: 0.960; CFI: 1.00; TLI: 1.026; PNFI: 0.000; FMIN: .190; RMSEA: 0.000; AIC: 99.302; ECVI: 0.602.

Figure: 2
Final Model Confirmed by Confirmatory Factor analysis
(With Modification Index)



There are good number of rules for evaluating goodness of model fit between the hypothesized model and sample data. We have used the following quasi statistical rules to judge the goodness of model fit:

CMIN (Minimum Discrepancy): CMIN is a measure by which we try to estimate whether any discrepancy exit between observed & estimated covariance matrices or not. Actually it measures

the difference between the unrestricted sample covariance matrix and the restricted covariance matrix. In fact it actually measures the likelihood of generating a χ^2 value which is more than χ^2 value in case of acceptance of null hypothesis. However, this measure is very sensitive to sample size. In spite of these limitations CMIN is one of the basic measures in reference to CFA (Byrne, 2010). For the purpose of present research we have observed relatively smaller chi-square value that is 30.1 at 44 degrees of freedom. The corresponding p value is .945. Both indicate a goodness of model fit.

Root Mean Square Residual (RMSR (Also known as RMR)): RMSR is another residual based measure. Actually it is a mean value of the residuals derived after comparing observed & estimated matrices. These matrices prepared employing of either correlation matrix or covariance matrices. Naturally average value of residual nearer to zero is desirable for the model fit. For the present work we have received the value 0.093, which is fair to accept the goodness of model fit.

Goodness of Fit Index (GFI): Another non statistical measure depicts overall degree of model fit. Value nearer or equal to 1 indicates good fit and value nearer or equal to zero reflects poor fit. It is basically squared residual between actual & predicted data. Thus it is insensitive to sample size. For the present research GFI is 0.97 reflects good fit.

Adjusted Goodness of Fit Index (AGFI): Adjusted goodness fit index is an extension of GFI. By adjusting GFI with ratio between degrees of freedom for the model proposed for and the degrees of freedom for the model which is null, we get AGFI. More than 0.9 value is appropriate for this measure. In the present analysis we have seen AGFI value is .946. Hence present model is well accepted.

Parsimony Goodness of Fit Index (PGFI): PGFI adjusts GFI with some parsimony measure. Higher value is indicating a good result. In our analysis it is 0.547 that is excess of 0.5, shows good fit.

Normed Fit Index (NFI): NFI is a relative measure to examine how proposed chi-square value exceeds from null chi-square value. Excess is equal to null χ^2 value is considered as perfect fit (NFI is equal to 1). However NFI is equal to 0.9 is acceptable level for acceptance. Our analysis shows NFI as 0.96. Thus we accept the model easily.

Comparative Fit Index (CFI): It is a modified measure of NFI taking into consideration of sample size. In our work CFI value is 1 which explains good fit of the model.

Tucker Lewis Index (TLI): TLI is a kind of incremental method combines with parsimony in measure. In the same line with NFI, it measures how proposed χ^2 value per degree of freedom deviates from null χ^2 value per degree of freedom. Hence, also we consider that deviation equal to null χ^2 per degree of freedom as perfect fit (TLI value is 1). However, TLI value 0.9 is also acceptable. In the present case TLI value is 1.06 indicates a very perfect fit.

Parsimony Normed Fit Index (PNFI): It is modified measure of normed fit index. By using this measure, we modify the model in terms of avoidance of over-fitting of data. NFI is adjusted with a ratio between degree of freedom of the null model. Simply it means NFI per unit ratio of degrees of freedom between proposed and null models. By this measure it is easy to compare between models and infer whether right fitting of the data has taken place or not. PNFI value in the present case is 0.64 expresses better fit of the model.

Minimum Discrepancy Fit Function (FMIN): $(N-1) FMIN=CMIN$. From this relationship it is clearly indicating that FMIN is related to CMIN measure but it is dependent on sample size. In case of large sample, model is not acceptable if the value of FMIN is substantially away from zero. For our work, we have FMIN value 0.190 and which is nearer to zero, help us to infer for a acceptance of the model.

Root Mean Square Error of Approximation (RMSEA): RMSEA is best in use to confirm the model with large sample. Like RMSR, RMSEA is to measure the difference per degree of freedom. However, not like RMSR, RMSEA is measured on population. RMSEA considers the error of approximation in terms of population per degree of freedom. Value less than 0.50 indicates good fit. In the present research RMSEA is calculated as 0.000. As a result acceptability is very high.

Closeness of Fit (PCLOSE): PCLOSE is a test for closeness of fit. Actually, it tests whether RMSEA is 'good' in the population or not. P value less than 0.05 in non acceptable value for this test. Some researchers have suggested that p value for this test should be more than .5. In our case p value is 0.998. Therefore, we can conclude safely that initial model fits very well with the available data.

Akaike's Information Criterion (AIC): This is a measure by which we compare among models, where models are varied in terms of construct numbers. Objectives of these criteria are to check the parsimony in the model. Simply this measure estimates whether we have fit the model by using too many coefficients. However, finally it is a comparative measure. We consider result which is lesser than all comparables, as a good result. For the present case AIC & other related results are lower than the other independent & saturated models. Hence, it is accepted as a good fit.

Expected Cross-validation Index (ECVI): We use 'ECVI' for the purpose of checking validity of the proposed model. It is based on the philosophy that fitted co-variance matrix is likely to respect in case of a new sample of similar size but drawn from a single population. Thus ECVI expects minimum difference between fitted covariance matrix of actual sample and expected covariance matrix of hold out sample for best fit result. In case of the present research we have seen that 'ECVI' value is 0.602 that is less than the ECVI value of independent & saturated model. Hence, it indicates a good fit.

Hoelter Model: Hoelter Critical N (or CN) is estimating whether size of the sample is adequate enough to produce a model which is sufficient for χ^2 test. According to this model any value more than 200, indicates good result. For our case both the results are more than 300 and thus satisfy the requirement successfully.

We present the fit indices of initial model & final model in Table 5.

Table: 5
Comparative Statement of Initial & Final Model

| Models | Chi-Square | df | P | RMR | GFI | AGFI | PGFI | NFI | CFI | TLI |
|---------------------|------------|----|-------|-------|-------|-------|-------|-------|-------|-------|
| Initial Model (EFA) | 106.355 | 48 | 0.000 | 0.156 | 0.901 | 0.839 | 0.554 | 0.865 | 0.919 | 0.888 |
| Final Model (CFA) | 31.302 | 44 | 0.925 | 0.093 | 0.970 | 0.947 | 0.547 | 0.960 | 1.000 | 1.026 |

Table: 5 (continued)
Comparative Statement of Initial & Final Model

| Models | PNFI | FMIN | F0 | RMSEA | AIC | ECVI | Hoelter (.05) |
|---------------------|-------|-------|-------|-------|---------|-------|---------------|
| Initial Model (EFA) | 0.629 | 0.645 | 0.354 | 0.086 | 166.355 | 1.008 | 102 |
| Final Model (CFA) | 0.000 | 0.190 | 0.000 | 0.000 | 99.302 | 0.602 | 319 |

Finally we can conclude by stating that our proposed model fit in terms of i) absolute fit measures like CMIN, FMIN, RMSR, RMSEA & ECVI ii) Parsimonious fit measures like PGFI, PNFI & AIC and iii) Incremental fit measures like TLI, NFI, AGFI & CFI (Hair et. al., 2006). Hence, model fits perfectly in all respects.

Managerial Implications

We have extracted three important implications vis-à-vis the present research work. First of all this research helps us to develop a valid & reliable scale (instrument) that would able to measure the ‘mechanism of channel control’ by the channel leaders for various distribution environment of developing nations similar to Indian environment. Second implication is related with identification of strategies and their interrelation, if any, for the distribution channel over which survey has taken place. Four important strategies are identified for creating behavioral control over channel participants with an object to smooth functioning of the channel. Most important is these four strategies are sharply different from proposed strategies of the existing literatures based on developed nations. We have also experienced that two strategies are developed by items drawn from influence strategy scale and two strategies are generated from items chosen from power scale. It shows channel participants of developing nations also view power & influence non-identical. Furthermore, we have seen partial interrelation exist between intelligence and contract orientation and also between expert & contract orientation. This result infers effect of expert on contract formation and impact of business intelligence in contract execution.

Third implication is related to measurement of importance of each strategy to the concerned distribution channel. We have seen importance of ‘Intelligence’ is highest 37%. So it is most important channel control mechanism. ‘Big Bossing’ is next important channel control mechanism having importance almost 30%. Most interesting observation is that importance of expert power to control channel is lowest. That may be because of high competition. All competitors are having that power common.

Therefore, this work will provide a guideline to the managers of developing nations for the purpose of behavioral management of their esteem channel partners. Last but not the least this paper contributes academics of channel management by providing a customized version of theory of behavioral management after empirical testing of the globally accepted model.

References

- Allen, Derek. R. & Rao, Tanniru. R.(2010), “ Analysis of Customer Satisfaction Data”, New Age International Publisher, New Delhi , India, pp: 34-35.
- Bacharach, Samuel and Edward Lawler (1980), *Power and politics in Organizations*, San Francisco: Jossey-Bass.
- Boolen, K. A. (1989a). “Structural Equations with Latent Variables” Wiley, New York.
- Boyle, Breh, Dwyer, F. Robert, Robicheaux, Robert A., And Simpson, James T. (1992)(1992) “Influence Strategies In Marketing Channel: Measures & Use In Diff. Relation Ship Structures” *Journal Of Marketing Research* Vol. Xxix (Nov),pp.462-73.
- Byrne Barbara M (2010) “Structural Equation with AMOS” 2nd Edition, Routledge
- Campbell, D.T. & Fiske, D.W (1959), “Convergent and discriminant validation by the multitrait-multimethod matrix”, *Psychological Bulletin* , Vol: 56 , pp: 81-105.
- Darwin Cartwright (1959) “A Field Theoretical Conception of Power.” In D. Cartwright (ed.) *Studies in Social Power* (Ann Arbor: Institute for Social Research).
- El-Ansary , Adel I, and Louis W.Stern (1972), “Power Management In The Distribution Channel” *Journal Of Marketing Research* , 9 (February) pp.47-52.
- Fraizer & Sheth (1985) “An Attitude Behavior Framework For Distribution Channel Management” *Journal Of Marketing*, Vol. 49, (Summer), pp.38-49.
- Fraizer, James Gill, and Sudhir Kale (1989), “Dealer Dependence Levels and Reciprocal Actions in a Channel of Distribution in a Developing Country.” *Journal of Marketing* , 53 (January), pp.50-69.
- Frazier (1983) “On the Measurement of Interfirm Power in Channel of Distribution” *Journal of Marketing Research* Vol. Xx (May), pp.158-66.
- Frazier and John O. Summers (1986), “Perceptions of Interfirm Power and its use within a franchise channel of distribution.” *Journal of Marketing Research*, 23 (May),pp.169-176.
- French. John R. and Bertram Raven. (1959).”The basis of social power”. In D. Cartwright (Ed). *Studies in social power*. Ann Arbor. MI: Institute of Social Research. Pp. 150-167.
- Ghaski J F (1984) “The Theory of Power and Conflict in Channel of Distribution, *Journal of Marketing* Vol. 48, (summer), pp. 9-29.
- Guha A , Chakraborty D (2002) “Relative position of HDI across Indian states: some exploratory research” *Artha Beekshan*, vol.II , no: 3 , (Dec) , pp.170.

Hair J F, Black W C, Babin B J, Anderson R E, Tatham R L (2006), "Multivariate Data Analysis" 5th Ed., Pearson Education, New Delhi, India Chapter 3,11 & appendix 11B.

Hunt, Shelby D. and John R. Nevin (1974), 'Power in a channel of distribution: Sources and consequences,' *Journal Of Marketing Research*, 11 (May), pp.186-193.

Johnson Richard A. and Whichern Dean W(2008),"Applied Multivariate Statistical Analysis" Sixth edition, Pearson Education , New Delhi, India, pp. 510-11.

Kaiser, H.F. (1958), "The Varimax Criterion for Analytic Rotation in Factor Analysis" *Psychometrika* , 23, pp.187-200.

Kale, Sudhir H.(1986) "Dealer perceptions of manufacturer power and Influence Strategies in a developing country" *Journal of Marketing Research*, Vol-XXIII, (Nov), pp.387-93.

Keith J.E, Tackson D.W, JR., Crosby L.A.(1990) "Effects of alternative types of Influence Strategies under different channel dependence structures" *Journal of Marketing*, Vol-54, (July), pp.30-41.

Lusch, Robert F.(1976) "Sources of Power: Their Impact on Intrachannel Conflict" *Journal of Marketing Research*, Vol-XIII, (Nov),pp.382-390.

Malhotra N K (2008), "Marketing research- An Applied Orientation," 5 th Ed. , Pearson Education.

Payan, Richard G Mc Farland (2005) "Decomposing Influence Strategies: Argument Structure And Dependence As Determinants O The Effectiveness Of Influence Strategies In Gaining Chanel Member Compliance." *Journal of Marketing* Vol.69 (July),pp.66-79.

Raven, Bertram H. (1965) "Social Influence and Power," In Ivan D. Steiner and Martin Fishbein, eds., *Current Studies in Social psychology*. New York: Holt, Rinchart and Winston,pp.371-382.

Simon, Herbert. (1953) "Notes on the observation and measurement of Power," *Journal of politics*, 15, (November), pp.500-518.

Swasy, Jhon L. (1979), "Measuring The Bases Of Social Power." In William L Willie (Ed). *Advances In Consumer Research* (Vol. 6. pp. 340-346). Ann Arbor MI.

Appendix

Diagram: 1
Process Undertaken In Present Research

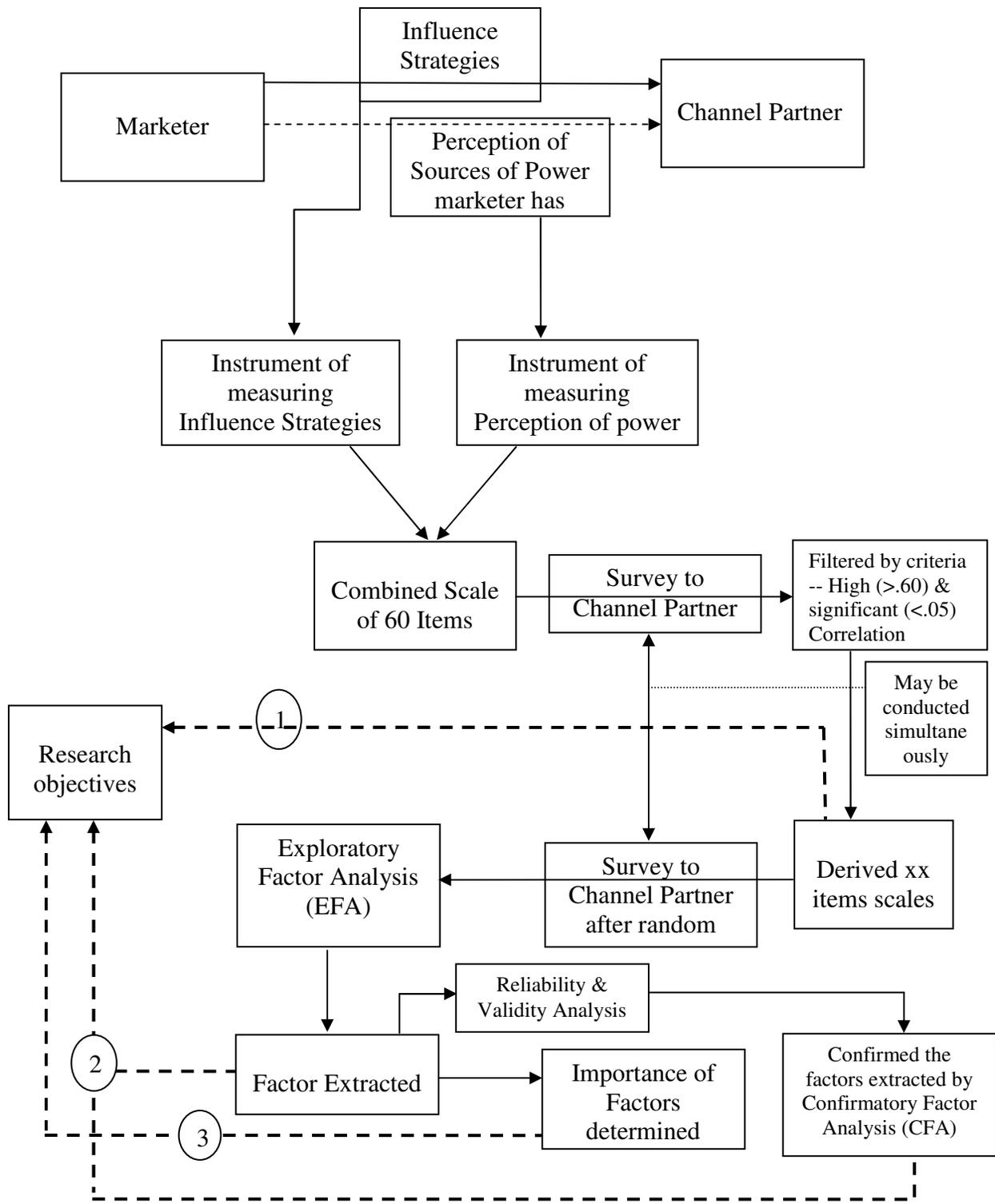


Table: 6
Model Fit Summary of AMOS

| Models | | Default Model | Saturated Model | Independence Model |
|------------------------------------|-------------|---------------|-----------------|--------------------|
| CMIN | NPAR | 34 | 78 | 12 |
| | CMIN | 31.302 | 0.000 | 785.538 |
| | DF | 44 | 0 | 66 |
| | P | 0.925 | | 0.000 |
| | CMIN/DF | 0.711 | | 11.902 |
| RMR,GFI | RMR | 0.093 | 0.000 | 0.623 |
| | GFI | 0.970 | 1.000 | 0.527 |
| | AGFI | 0.947 | | 0.441 |
| | PGFI | 0.547 | | 0.446 |
| Baseline Comparisons | NFI Delta1 | 0.960 | 1.000 | 0.000 |
| | RFI rho1 | 0.940 | | 0.000 |
| | IFI Delta2 | 1.017 | 1.000 | 0.000 |
| | TLI rho2 | 1.026 | | 0.000 |
| | CFI | 1.000 | 1.000 | 0.000 |
| Parsimony-Adjusted Measures | PRATIO | 0.667 | 0.000 | 1.000 |
| | PNFI | 0.640 | 0.000 | 0.000 |
| | PCFI | 0.667 | 0.000 | 0.000 |
| FMIN | FMIN | 0.190 | 0.000 | 4.761 |
| | F0 | 0.000 | 0.000 | 4.361 |
| | LO 90 | 0.000 | 0.000 | 3.836 |
| | HI 90 | 0.013 | 0.000 | 4.931 |
| RMSEA | RMSEA | 0.000 | | 0.257 |
| | LO 90 | 0.000 | | 0.241 |
| | HI 90 | 0.017 | | 0.273 |
| | PCLOSE | 0.998 | | 0.000 |
| AIC | AIC | 99.302 | 156.000 | 809.538 |
| | BCC | 105.118 | 169.342 | 811.591 |
| | BIC | 205.109 | 398.735 | 846.882 |
| | CAIC | 239.109 | 476.735 | 858.882 |
| ECVI | ECVI | 0.602 | 0.945 | 4.906 |
| | LO 90 | 0.679 | 0.945 | 4.382 |
| | HI 90 | 0.692 | 0.945 | 5.476 |
| | MECVI | 0.637 | 1.026 | 4.919 |
| HOELTER | HOELTER .05 | 319 | | 19 |
| | HOELTER .01 | 363 | | 21 |

Table No.: 7
Validity Analysis:

| | | P-6) | I-5) | P-26) | I-24) | P-8) | I-11) | P-11) | I-27) | P-9) | I-23) | I-29) | P-14) |
|---|---------------------|----------|----------|-----------|----------|----------|----------|-----------|----------|----------|-----------|----------|----------|
| P6HS | Pearson Correlation | .954(**) | 0.009 | 0.155 | -0.038 | .471(**) | -0.102 | 0.223 | -.326(*) | .693(**) | -0.157 | -.272(*) | .601(**) |
| | Sig. (2-tailed) | 0 | 0.947 | 0.254 | 0.783 | 0 | 0.454 | 0.098 | 0.014 | 0 | 0.249 | 0.043 | 0 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| I5HS | Pearson Correlation | 0.035 | .950(**) | -0.23 | 0.14 | 0.12 | .450(**) | -.284(*) | 0.013 | 0.061 | 0.244 | 0.1 | -0.076 |
| | Sig. (2-tailed) | 0.797 | 0 | 0.088 | 0.302 | 0.38 | 0.001 | 0.034 | 0.925 | 0.658 | 0.07 | 0.461 | 0.577 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| P26HS | Pearson Correlation | 0.12 | -0.213 | .954(**) | -0.176 | -0.026 | -0.188 | .679(**) | -0.233 | 0.162 | -.404(**) | -0.191 | 0.138 |
| | Sig. (2-tailed) | 0.38 | 0.116 | 0 | 0.194 | 0.851 | 0.166 | 0 | 0.083 | 0.233 | 0.002 | 0.158 | 0.31 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| I24HS | Pearson Correlation | -0.043 | 0.18 | -0.171 | .961(**) | 0.007 | 0.017 | 0.036 | .620(**) | 0.098 | 0.127 | .485(**) | -0.063 |
| | Sig. (2-tailed) | 0.753 | 0.186 | 0.208 | 0 | 0.956 | 0.901 | 0.79 | 0 | 0.474 | 0.35 | 0 | 0.645 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| P8HS | Pearson Correlation | .431(**) | 0.112 | -0.027 | -0.012 | .937(**) | -0.061 | 0.145 | -0.172 | .368(**) | -0.146 | -0.234 | .527(**) |
| | Sig. (2-tailed) | 0.001 | 0.413 | 0.845 | 0.929 | 0 | 0.657 | 0.286 | 0.204 | 0.005 | 0.284 | 0.083 | 0 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| I11HS | Pearson Correlation | -0.096 | .455(**) | -0.155 | -0.01 | -0.061 | .966(**) | -0.237 | 0.137 | -0.178 | .484(**) | 0.078 | 0.034 |
| | Sig. (2-tailed) | 0.482 | 0 | 0.254 | 0.942 | 0.656 | 0 | 0.079 | 0.313 | 0.188 | 0 | 0.567 | 0.804 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| P11HS | Pearson Correlation | 0.194 | -.317(*) | .687(**) | 0.022 | 0.138 | -.269(*) | .961(**) | -0.153 | .301(*) | -.433(**) | -0.234 | 0.249 |
| | Sig. (2-tailed) | 0.152 | 0.017 | 0 | 0.871 | 0.311 | 0.045 | 0 | 0.259 | 0.024 | 0.001 | 0.083 | 0.064 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| I27HS | Pearson Correlation | -0.243 | 0.047 | -0.203 | .613(**) | -0.104 | 0.17 | -0.104 | .931(**) | -0.191 | 0.181 | .530(**) | -0.18 |
| | Sig. (2-tailed) | 0.071 | 0.729 | 0.134 | 0 | 0.447 | 0.21 | 0.445 | 0 | 0.159 | 0.182 | 0 | 0.184 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| P9HS | Pearson Correlation | .695(**) | 0.049 | 0.148 | 0.091 | .403(**) | -0.173 | .323(*) | -0.195 | .946(**) | -0.089 | -.274(*) | .500(**) |
| | Sig. (2-tailed) | 0 | 0.718 | 0.275 | 0.503 | 0.002 | 0.202 | 0.015 | 0.149 | 0 | 0.516 | 0.041 | 0 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| I23HS | Pearson Correlation | -0.123 | 0.252 | -.436(**) | 0.121 | -0.184 | .499(**) | -.450(**) | 0.212 | -0.111 | .958(**) | 0.158 | -0.156 |
| | Sig. (2-tailed) | 0.366 | 0.061 | 0.001 | 0.373 | 0.174 | 0 | 0.001 | 0.116 | 0.414 | 0 | 0.244 | 0.25 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| I29HS | Pearson Correlation | -0.235 | 0.085 | -0.185 | .504(**) | -0.214 | 0.118 | -0.223 | .572(**) | -.297(*) | 0.119 | .926(**) | -0.163 |
| | Sig. (2-tailed) | 0.081 | 0.534 | 0.172 | 0 | 0.113 | 0.388 | 0.099 | 0 | 0.026 | 0.384 | 0 | 0.229 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| P14HS | Pearson Correlation | .523(**) | -0.035 | 0.069 | -0.021 | .494(**) | -0.04 | 0.182 | -0.193 | .510(**) | -0.148 | -0.116 | .938(**) |
| | Sig. (2-tailed) | 0 | 0.797 | 0.611 | 0.878 | 0 | 0.767 | 0.179 | 0.154 | 0 | 0.276 | 0.394 | 0 |
| | N | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 | 56 |
| ** Correlation is significant at the 0.01 level (2-tailed). | | | | | | | | | | | | | |
| * Correlation is significant at the 0.05 level (2-tailed). | | | | | | | | | | | | | |

Author Biographies

Kaushik Mandal is Assistant Professor of Marketing in the Department of Management Studies, National Institute of Technology, Durgapur, India. He is holding master and doctoral degree both in marketing area under business administration. He is having good number of publications in his credit. He has been serving the academics for more than eight years. Prior to teaching Dr. Mandal has worked for industry.

Gautam Bandyopadhyay is an Associate Professor in the Department of Management Studies, National Institute of Technology, Durgapur, India. He is a fellow member of the Institute of Cost & Works Accountants of India. He received a Ph.D degree from the Jadavpur University, India. Dr. Bandyopadhyay has also done master's in mathematics from the same university. He has presented papers in many international conferences of repute and has wide range of publications. He has a teaching and research experience of about 10 years.

Koushick Roy is an executive in consumer durables industry for last 6 years. He is also associated with Department of management Studies, National Institute of Technology, Durgapur as a capacity of part time doctoral student. He has two numbers of publications in his credit.