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Flexibility, Controllability and Risk Measurement Metrics in Changing Pattern of Business Environment

Arnab Mitra[1]

Abstract

Management Systems has traversed a long way since its inception. The shift is visible from disintegrative Mechanistic Paradigm to a Systemic paradigm. The transformation has followed continua, which is resultant of continuous dynamic interplay between the thesis and antithesis.

Today's business environment is more like a white water Kayak race. To succeed in today's environment it's important to have courage in heart with a clear objective to Integrate and synthesize the best ideas. Simplicity is a natural instinct in the face of the accelerating pace of change. But in a given situation with so many options this may be seductive and can cause for destruction. One sign of the struggle for understanding this changing pattern of business is the growing number of organizational change program instituted since the late 1980s. The need is to balance the paradoxes that run through the development, operation and continual transformation of the enterprises. Managers in the decade ahead will acknowledge and overcome this chaos and complexity not with some set of formulae or rigid management doctrines but by working flexibly – and with uncommon intelligence; by managing paradox itself.

This article is an attempt to identify, select and establish such flexibility and controllability measurement metrics to understand the paradoxes in a more meaningful manner.

Introduction

In today's competitive market companies are under pressure as customers want new, more innovative products that are tailored to their specific needs. They also want cost effective, timely service and responsive support which meets their requirements. As always, reducing cost and improving quality requires ongoing initiatives within every enterprise. Delivering higher value, whether within the supply / value chain to partners and OEMs or to the end user, has become more and more important.

All businesses today operate in a marketplace characterized by change. The challenge is to become Flexible in order to ensure an agile response to changing market conditions. Managing planned change, for example, through business process reengineering (BPR), is difficult in itself. However, managing unplanned change demands the ability to react faster and use new technology to match market conditions and customer demands in a way that maintains or creates competitive advantage.

1. Associate Director, KPMG

As Business strategies have evolved, the focus has shifted away from being big and stable with complete control, to being small, nimble and more responsive to the market. This evolution reflects the introduction of new technology, new trends and, in particular, new customer behaviour. New markets are up for grabs because being big and stable is no longer a competitive formula. Flexibility creates the chance to seize the market by responding faster to customer demands. Today's world leaders are characterized by their ability to deliver the products that customers want with minimum time-to-market and maximum capability to revamp products to meet market expectations.

This paper is an attempt to identify, select and establish Flexibility, Controllability and Risk Parameters that support effective way of doing business. The objective is to focus on how business house can fit into addressing the new paradoxical pattern in modern environment.

To become Flexible, a company must recognize change in the marketplace and then manage and master that change.

Finally, Flexible enterprisers change the way that they interact with their business partners so that they can compete more effectively through cooperation. Today's successful enterprise knows that it does not dictate market demands - it listens to its customers. It finds its core competence and makes partnerships when it is necessary to provide the customer with a solution. Supply chain cooperation is only one aspect of becoming more cooperative—knowledge sharing is another. A competitive company is a company looking for partners to benefit its own products and services.

The study of the minor project is about identifying selecting and establishing Flexibility, Controllability and Risk Parameters/Factors. Henk W Volberda's phenomenon work is done in European Context. Prof. Sushil's phenomenon work in the area of systemic flexibility brought in a new dimension to this paradigm.

"The system age, is a synthesis of the Machine Age and its antithesis. The antithesis gives focus on synthesis rather than analysis, and is governed by the doctrine of expansionism. It is looking the reality to be much more integrated and unified, as the organic systems once disassembled could not be fully reassembled. Thus, it looks at the system under consideration to be part of a larger whole called as `suprasystem'. The containing whole is to be first identified and its properties are to be explained. Then the role or function of the system within the containing whole needs to be explained." (Sushil, 2000)

The study tries to identify factors concerning flexibility, controllability and Risk and tries to identify a confluence amongst them. It is based on the concept of the synthesis between thesis (controllability) and antithesis (Flexibility) and their dynamic interplay driven by the Risk factors.

Objective

The research objective is to establish list of flexibility, controllability and risk measurement metrics in changing pattern of business environment.

This is an attempt to substantiate "No Tyranny of the OR" and "embrace the genius of the AND". Instead of being oppressed by the "Tyranny of the OR" highly visionary companies liberate themselves with the "Genius of the AND" – the ability to embrace both extremes of a number of dimensions at the same time - Built to Last by Jim Collins and Jerry I Porras.

Research Approach

The Figure 1 illustrates the approach to achieve the above research objective -

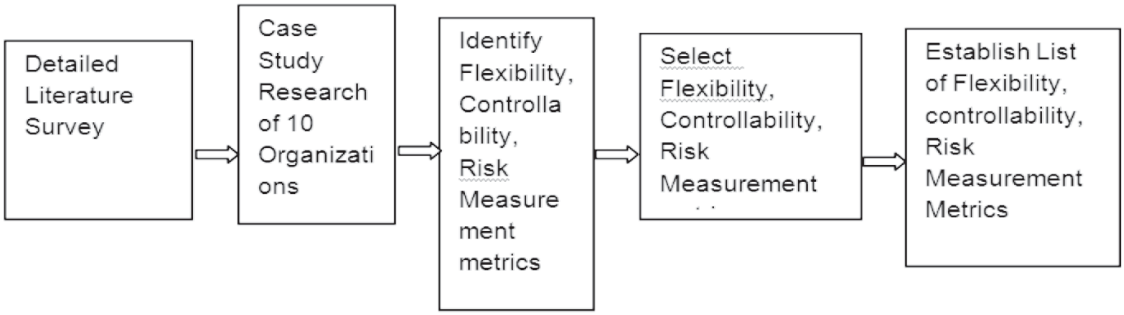

Figure 1: Diagrammatic Representation of Research Approach

Primary Data Analysis Methodology

While structuring the Research, the Grounded theory approach was chosen to identify the Enterprise Flexibility, Enterprise Controllability and Enterprise Risk Parameters. Thirty two Industry experts were selected and interviewed to identify the pattern. Once the pattern is identified, the parameters were segregated. A Delphi methodology was applied followed by Statistical T-Test analysis to select and establish the factors.

The study was conducted over a period of one month interviewing experts across various industries covering several sectors. Consent was obtained and a copy of the signed consent form was given to each participant. Two face-to-face interviews were conducted with each of the 32 study participants. Interviews lasted 60–90 minutes and were conducted at intervals convenient to the participant (i.e. usually 20–40 minutes).

The first interview with each participant was exploratory in nature and involved open-ended questions. At the start of the study, participants were asked general open-ended questions, in order to abide by the grounded theory methodology stance of limiting the influence on participants of previous theoretical constructs of caring (Strauss & Corbin 1990). Furthermore, in grounded theory methodology, it is the incoming information from participants that sharpens the focus of the research question and related general questions (Strauss & Corbin 1994).

One reason for this practice is that in grounded theory methodology the incoming information from participants determines the information sought. This is referred to as theoretical sampling (Strauss & Corbin 1990).

In the study, theoretical saturation of data was achieved with 32 participants.

A tentative preliminary model emerged from the first round of interviews with each of the 32 participants. The second interview was used as an opportunity to affirm, modify, add, clarify and elaborate on what was said in the first interview. The questions were based on the information introduced by participants during the first round of interviews, were effective in checking the content areas introduced and for verifying the emerging output.

Profile of the Sample

Thirty two Industry experts were identified. Out of 32 experts 7 belong to countries outside India. Most of the respondents belong to the top management level (CXOs).

Information provided by participants earned its way into the theory when constant comparisons of data revealed the repeated presence of specific content areas in actual participant data. In grounded theory methodology, this is referred to as the constant comparison method of data analysis (Strauss & Corbin 1990, 1998).

In our study, the constant comparison method of data analysis was accomplished by constantly comparing new information with previously identified information (Carpenter Rinaldi 1995). This was to identify information that was repeatedly present, and relevant to participants. These questions were asked to identify (1) categories, (2) relationships between and within categories, and (3) a central phenomenon or core category around which all the other categories revolved.

Through the constant comparison of data, categories that needed further refinement and development were identified and developed (Strauss 1987). Each happening, incident, idea and event were given a name or conceptual label that represented what was happening in the data (Strauss 1987). Interviews were transcribed on the left-hand side of the transcript page. Then the categories identified were transcribed on the right-hand side of the transcript. A file folder, labelled according to the category identified, was established and copies of the corresponding section of interview transcript were placed in the folder. As new data were compared with previous data, different levels of codes or labels, corresponding to different levels of the theory (i.e. concepts, categories, subcategories and basic social processes), were developed. Consequently, as conditions change, it is expected that the theoretical formulation presented will also change in order to reflect new conditions, different settings and diverse samples. Therefore, one of the limitations of the study is what cannot be found in the actual data at the time of the study (Strauss & Corbin 1994).

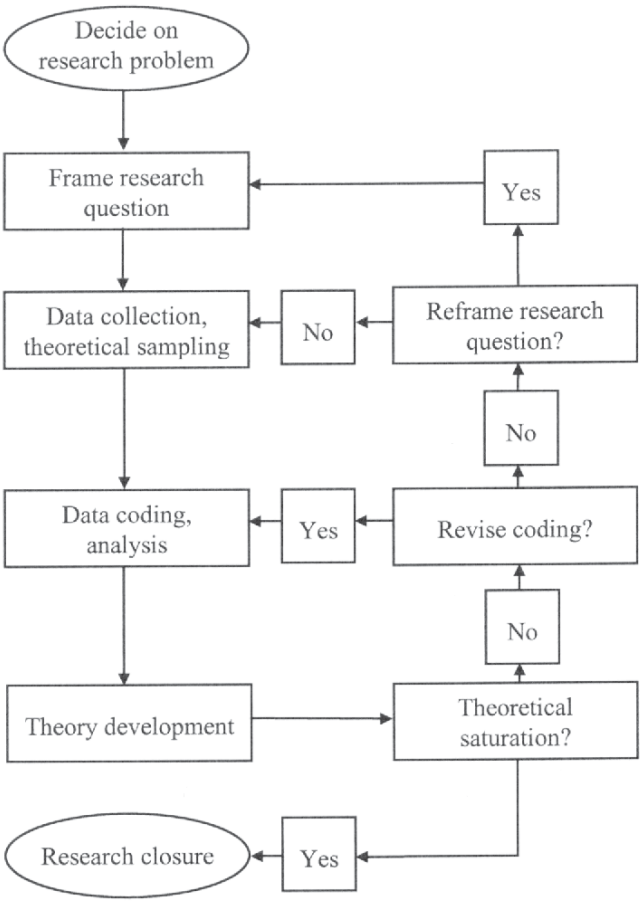

Figure 2: Flow Diagram of Grounded Theory Method

The factors identified after conducting the study are as follows -

General Pattern

1) Flexibility can be measured in three areas - Options, Change Mechanism and Freedom of Choices.
2) All risk can be categorized into two major types of risks - Risk of not having flexibility and Risk of having flexibility
3) Controllability parameters can be classified into two groups a) Internal in the system (Known as the self governance) b) External (This is controlled from outside the system).

Statements on Flexibility

4) Muti-tasking ability can be considered as Flexibility Parameter
5) Network based approach can be considered as Flexibility Parameter
6) Productivity can be considered as Flexibility Parameter
7) Dynamism can be considered as Flexibility Parameter
8) Team Work can be considered as Flexibility Parameter
9) Information Technology proficiency can be considered as Flexibility Parameter
10) Flexi-timings can be considered as Flexibility Parameter
11) Flexi Structure can be considered as Flexibility Parameter
12) Flexi Compensation can be considered as Flexibility Parameter
13) Flexi Appraisal can be considered as Flexibility Parameter
14) Adaptability to change can be considered as Flexibility Parameter.
15) Change Management Procedure can be considered as Flexibility Parameter
16) Manufacturing Process flexibility can be considered as Flexibility Parameter
17) Sales Flexibility measured by time to respond to a change in the market can be considered as Flexibility Parameter
18) Outsourcing / Third Party engagement can be considered as Flexibility Parameter
19) Data centre has to be flexible to accommodate skewed data flux due to seasonality in business – can be considered as Flexibility
20) Market side flexibility can be measured by economic parameters.
21) Supply side of people – the variability is in the general economic conditions.
22) Exchange rate generally has an impact on organization in deploying flexible measures.
23) HR policies can be considered as Flexibility parameters and can be measured by Attrition rate.
24) Measure of On-time Delivery can be considered as Flexibility parameter
25) Sensitivity to the Quality requirement can be considered as Flexibility Parameter
26) Learning environment measured by the number of initiatives taken to create the learning environment can be considered as Flexibility Parameters
27) Key aspects of the business model are a) On-site and offshore mix b) Support & maintenance vs. New Projects.

28) Flexibility may work in a negative way for a Bureaucratic Govt set up, who are involved in certifying electronic transactions.

29) Flexibility lies in Business direction i.e. allocation of investments across new and old product portfolio, flexibility in Business direction (e.g. make v/s buy)

30) Flexibility is Resilience in customer handling i.e. openness to customer queries and complaint management across channel (e.g. services handled equally when request placed telephonically, on the Web-channel, at the retail store)

31) Flexibility in leadership (in a complex case) can be a flexibility parameter

32) Supply chain flexibility - Demand and supply lines should have sufficient flexible capacity to absorb business demands – should be considered as Flexibility Parameter

Statements on Controllability

33) Financial System (Tripple Audit System – internal, external and statutory) can be considered as controllability parameter

34) Clearly laid down authority and responsibility metrics can be considered as controllability parameter

35) Legal competency of an organization can be considered as controllability parameter

36) Importance of Vigilance department can be considered as controllability parameter

37) Tools like Performance, Coaching and Development systems to control the pockets of lower performance and / or morale before it is too late – can be considered as Controllability Parameter

38) HR policies can be considered as a control measure – can be measured by attrition rate.

39) Adherence to Information Governance Policy can be considered as control parameter (information leakage is restricted).

40) Mind-Control can be considered as Controllability parameter – can be measured by the initiatives taken by the organization.

41) Quality Assurance in purchase may be considered as Controllability measure.

42) Monitoring / measuring aberrations from normal result of process input and output can be considered as controllability parameter

43) Growth strategy – focus on domain, strategy and investment decisions can be considered as controllability parameters

44) Margins/ Accounting Ratios can be considered as Controllability Parameters

45) Order book, pipeline and conversion ratio can be considered as Controllability Parameters

46) New customer acquisition *vis a vis* repeat order generation can be measured as Controllability Parameters

47) Policies and procedures of the enterprise can be considered as Controllability parameters

48) Govt Regulation can be considered as Controllability Parameter

Statements on Risk

1) Multi-tasking may effect output because people may not be good in every areas. Expertise may be in one field and may not be that good in other (People Risk)

2) Attrition can be termed as Loss of knowledge and can be considered as Risk parameter

3) Too much of dynamism may end up with decisions making process without evaluating the situation – can be considered as Risk Parameter
4) Conflict can be considered as Risk Parameter
5) People centric organization may have skewed performance over the corporate landscape.
6) Data Dependency and sanctity of Data can be a big threat to the organization
7) Rate of change of decisions can be considered as Risk Parameter
8) Vertical monitoring can be considered as Risk Parameter
9) Emotional Risk – when you are too deeply involved into your work – can be considered as Risk Parameter
10) Physical Risk –can be considered / should be considered as Risk Parameter in a production system.
11) SCM Turnover Ratio can be considered as Risk Parameter
12) Political uncertainty can be considered as Risk Parameter
13) Currency fluctuations can be considered as Risk Parameter
14) Prices of Natural Resource can be considered as Risk Parameter
15) Monetary policies and cost of finance can be considered as Risk Parameter
16) Inflation can be considered as Risk Parameter
17) Transparency in Information flow can be considered as Risk Parameter
18) Risk of Lending because of diversified portfolio can be considered as Risk Parameter
19) Too many touch points (project based) can be considered as Risk Parameter
20) Technology Risks - Obsolescence of a company's main technology platform - can be considered as Risk parameter
21) Financial Risks - These are standard for any company – over leveraged, high debt ratio impacted by high interest rates etc - can be considered as Risk parameter
22) Organization's risk appetite measured by investments towards R&D (or Innovation)
23) Organization culture of Risk-Reward in the compensation structure can be considered as Risk Parameter

Delphi Method - Selecting Enterprise Flexibility, Enterprise Controllability and Enterprise Risk Parameters

The original Delphi method was developed by Norman Dalkey of the RAND Corporation in the 1950's for a U.S. sponsored military project. Dalkey states that the goal of the project was "to solicit expert opinion to the selection, from the point of view of a Soviet strategic planner, of an optimal U.S. industrial target system and to the estimation of the number of A-bombs required to reduce the munitions output by a prescribed amount," (Dalkey & Helmer, 1963, p. 458). Rowe and Wright (1999) characterize the classical Delphi method by four key features -

1. Anonymity of Delphi participants - allows the participants to freely express their opinions without undue social pressures to conform from others in the group. Decisions are evaluated on their merit, rather than who has proposed the idea.
2. Iteration - allows the participants to refine their views in light of the progress of the group's work from round to round.

Some (Rowe & Wright, 1999) suggest that only those studies true to their origins that have the four characteristics should be classified as Delphi studies, while others (Adler & Ziglio, 1996; Delbeq *et al*., 1975; Linstone & Turloff, 1975) show that the technique can be effectively modified to meet the needs of the given study. Perhaps a distinction might be made by using the term Classical Delphi to describe a type of method that adheres to the characteristics of the original Delphi as summarized by Rowe and Wright (1999).

The Delphi process has been comprehensively reviewed elsewhere (Adler & Ziglio, 1996; Delbeq *et al*., 1975; Linstone & Turloff, 1975), and so I present only a brief overview of how I have used the Delphi in my minor project (Figure 1).

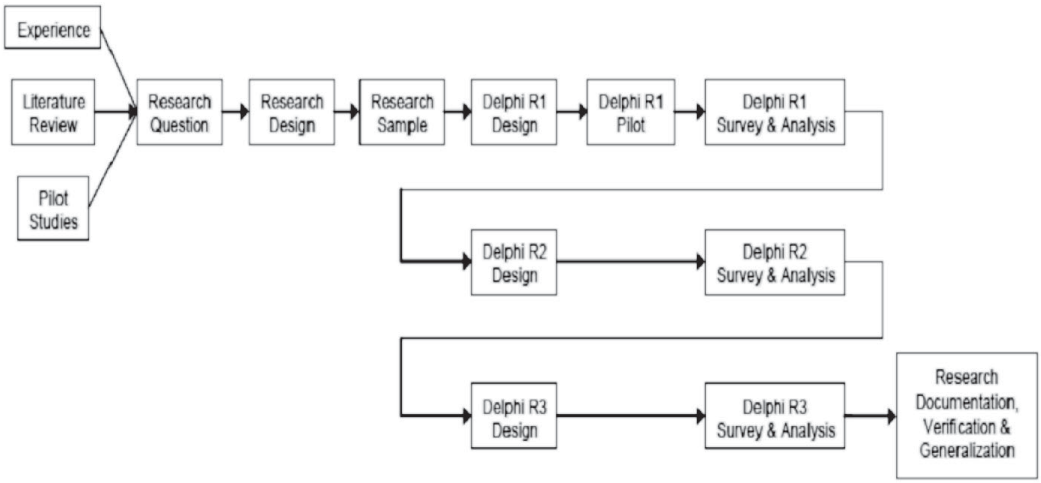

Figure 3: Three Round Delphi Process

1) Develop the Research Question - The research question is derived by a number of ways. For example, it might be co-developed by the student with the help of the supervisor, or the researcher's own industry experience often contributes to his interest in the research area. A review of the literature is also conducted, among other things, to determine if a theoretical gap exists. Often pilot studies are undertaken for numerous reasons - i) identify the problem, ii) conceptualize the study, iii) design the study, iv) develop the sample, v) refine the research instrument, and, vi) develop and test data analysis techniques (Prescott & Soeken, 1989). Completing a pilot study can also help ascertain the relevance the research question has to industry; some supervisors strongly favor applied rather theoretical research.

2) Design the Research - After developing a feasible research question, we begin designing the research from a macro to a micro perspective. Typically we review different research methods (both qualitative and quantitative) and after considering the pros and cons of each, we select the most promising method(s) to help answer our research question. The researcher would select the Delphi method when he wants to collect the judgments of experts in a group decision making setting. Both qualitative and quantitative methods can be used in the Delphi process. The Delphi method may be only one component of the research project; for example, the Delphi outputs may be verified and generalized with a survey.

3) Research Sample - Selecting research participants is a critical component of Delphi research since it is their expert opinions upon which the output of the Delphi is based (Ashton 1986; Bol- ger & Wright 1994; Parente, Anderson, Myers, & O'Brien, 1994). There are four requirements for "expertise" - i) knowledge and experience with the issues under investigation; ii) capacity and willingness to participate; iii) sufficient time to participate in the Delphi; and,

iv) effective communication skills (Adler & Ziglio 1996). Since expert opinion is sought, a purposive sample is necessary where people are selected not to represent the general population, rather their expert ability to answer the research questions (Fink & Kosecoff 1985). The student may need some help from the supervisor to identify the initial group of experts but may use the "snowball" sampling technique to generate subsequent participants (Hartman & Baldwin, 1995; Mason, 1996).

4) Develop Delphi Round One Questionnaire - Care and attention needs to be devoted to developing the initial broad question which is the focus of the Delphi because if respondents do not understand the question, they may provide inappropriate answers and/or become frustrated(Delbeq *et al*., 1975). Sometimes, the purpose of the first round Delphi is to brainstorm (R. Schmidt, 1997).

5) Delphi Pilot Study - A pilot study is sometimes conducted with the goals of testing and adjusting the Delphi questionnaire to improve comprehension, and to work out any procedural problems. The researcher may also pre-test each subsequent questionnaire. The Delphi pilot is especially important for inexperienced researchers who may be overly ambitious regarding the scope of their research or underestimate the time it will take a Delphi research participant to fully respond to the Delphi survey.

6) Release and Analyze Round One Questionnaire - The questionnaires are distributed to the Delphi participants, who complete and return them to the researcher. The results of Round One are then analyzed according to the research paradigm (e.g. qualitative coding or statistical summarizing into medians plus upper and lower quartiles). Reality Maps can also be developed and shared with the Delphi participants. Reality Maps are graphical representations of the key constructs under investigation. They depict reality from the participant's perspective and often illustrate interactions, causes and effects, process flow, and other aspects of their reality. Reality Maps can greatly improve understanding and facilitate the emergence of collective intelligence in subsequent rounds about the topic under investigation (Lindstone & Turloff, 1975).

7) Develop Round Two Questionnaire - The Round One responses are the basis with which to develop the questions in the Round Two Questionnaire. Depending upon the research goals, the researcher may direct the focus of the research, or be directed by the opinions of the participants. If the purpose of Round One was to generate a list, then it is common to pare down that list in Round Two (R. Schmidt, 1997).

8) Release and Analyse Round Two Questionnaire - The Round Two Questionnaire is released to the research participants and when completed, returned for analysis. However, the participants are first given the opportunity to verify that the Round One responses did indeed reflect their opinions and are given the opportunity to change or expand their Round One responses now that the other research participant's answers are shared with them. Ranking and rating the output of the first round is common (R. Schmidt, 1997). Continuous verification throughout the Delphi process is critical to improve the reliability of the results (Adler & Ziglio, 1996; Delbeq *et al*., 1975; Linstone & Turloff, 1975) and should be factored into the research design. Again, a similar process of analysis is often used in Round Two.

9) Develop Round Three Questionnaire - The Round Two responses are used to develop the Round Three Questionnaire with additional questions to verify the results, to understand the boundaries of the research, and to understand where these results can be extended. Typically, the questions become more focused on the specifics of the research at each round.

10) Release and Analyse Round Three Questionnaire - The final round of analysis is conducted following a similar process used to analyse the data in Rounds One and Two - use the

appropriate technique for the question type (e.g. coding for open-ended, qualitative questions). Again, the research participants are given the opportunity to change their answers and to comment on the emerging and collective perspective of the research participants. The process stops if the research question is answered - for example, consensus is reached, theoretical saturation is achieved, or sufficient information has been exchanged.

11) Verify, Generalize and Document Research Results - The Delphi results are verified (usually continuously through the Delphi) and the extent the results can be generalized are also investigated.

The Delphi was conducted over 32 samples (experts) and please find below the parameters selected after two rounds of Delphi.

General Pattern

1) Flexibility can be measured in three areas - Option, Change Mechanism and Freedom of Choice.
2) All risk can be categorized into two major types of risks - Risk of not having flexibility and Risk of having flexibility
4) Controllability parameters can be classified into two groups 1) Internal in the system (Known as the self governance) 2) External (This is controlled from outside the system).

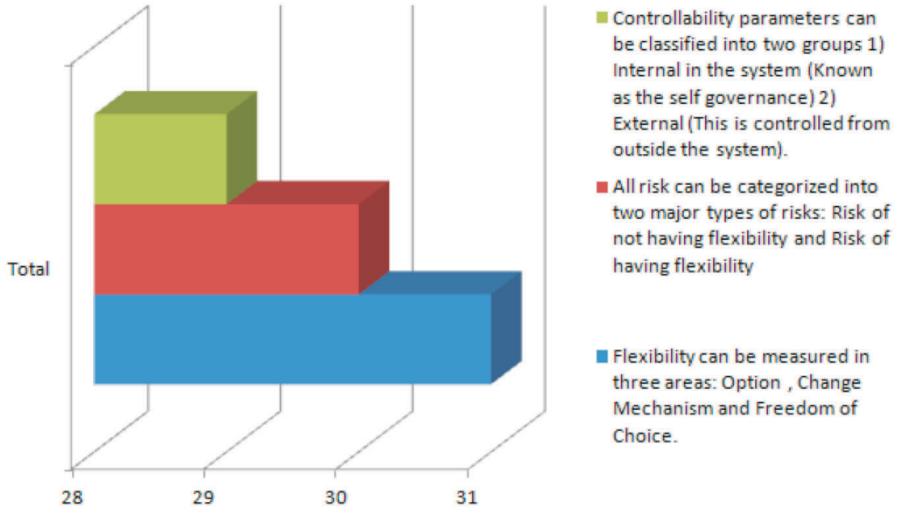

Figure 4: Flexibility Controllability Risk Confluence Pattern - Bar Diagram

Flexibility Parameters

5) Productivity can be considered as Flexibility Parameter
6) Dynamism can be considered as Flexibility Parameter
7) Flexi Structure can be considered as Flexibility Parameter
8) Adaptability to change can be considered as Flexibility Parameter
9) Change Management Procedure can be considered as Flexibility Parameter
10) Manufacturing Process flexibility can be considered as Flexibility Parameter
11) Sales Flexibility measured by time to respond to a change in the market can be considered as Flexibility Parameter

20) Market side flexibility can be measured by economic parameters.

21) Supply side of people – the variability is in the general economic conditions.

24) Measure of On-time Delivery can be considered as Flexibility parameter

25) Sensitivity to the Quality requirement can be considered as Flexibility Parameter

26) Learning environment measured by the number of initiatives taken to create the learning environment can be considered as Flexibility Parameters

29) Flexibility lies in Business direction i.e. allocation of investments across new and old product portfolio, flexibility in Business direction (e.g. make v/s buy)

30) Flexibility is Resilience in customer handling i.e. openness to customer queries and complaint management across channel (e.g. services handled equally when request placed telephonically, on the Web-channel, at the retail store)

31) Flexibility in leadership (in a complex case) can be a flexibility parameter

32) Supply chain flexibility - Demand and supply lines should have sufficient flexible capacity to absorb business demands – should be considered as Flexibility Parameter

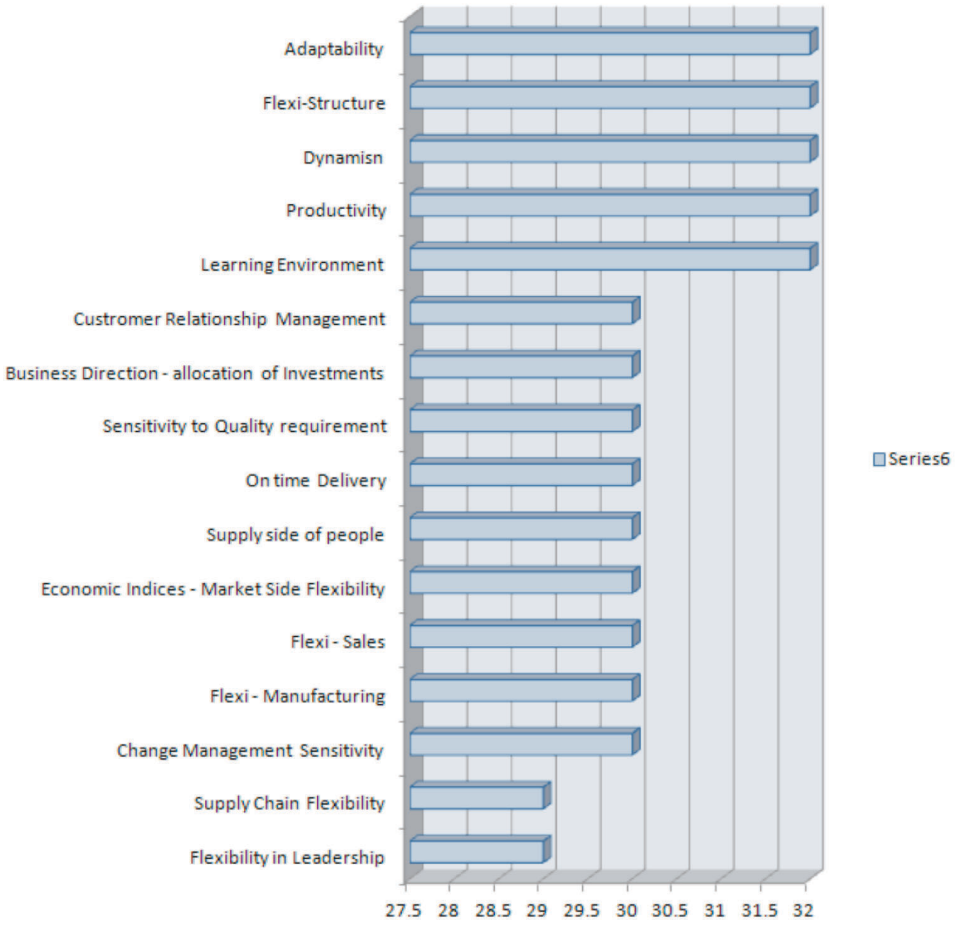

Figure 5: Flexibility Parameters Bar Diagram

Controllability Parameters

33) Financial System (Tripple Audit System – internal, external and statutory) can be considered as controllability parameter

34) Clearly laid down authority and responsibility metrics can be considered as controllability parameter

35) Importance of Vigilance department can be considered as controllability parameter

37) Tools like Performance, Coaching and Development systems to control the pockets of lower performance and / or morale before it is too late – can be considered as Controllability Parameter

39) Adherence to Information Governance Policy can be considered as control parameter (information leakage is restricted).

41) Quality Assurance in purchase may be considered as Controllability measure.

42) Monitoring / measuring aberrations from normal result of process input and output can be considered as controllability parameter

44) Margins/ Accounting Ratios can be considered as Controllability Parameters

45) Order book, pipeline and conversion ratio can be considered as Controllability Parameters

48) Govt Regulation can be considered as Controllability Parameter

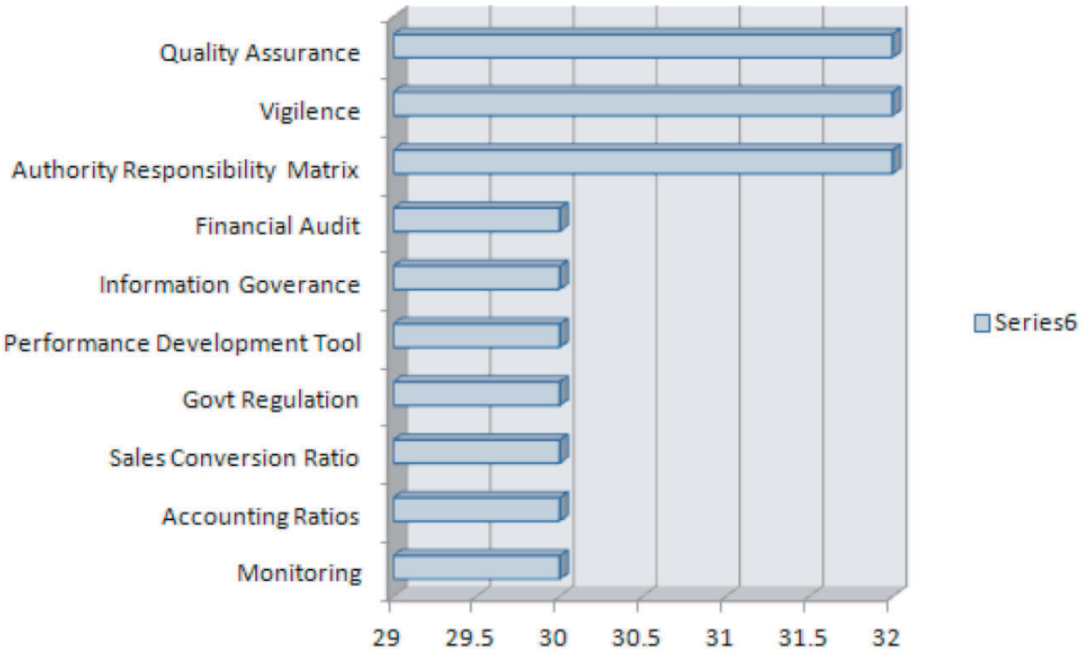

Figure 6: Controllability Parameters Bar Diagram

Risk Parameters

1. Multi-tasking may effect output because people may not be good in every areas. Expertise may be in one field and may not be that good in other (People Risk)
2. Attrition can be termed as Loss of knowledge and can be considered as Risk parameter
6. Data Dependency and sanctity of Data can be a big threat to the organization

7. Rate of change of decisions can be considered as Risk Parameter
11. SCM Turnover Ratio can be considered as Risk Parameter
12. Political uncertainty can be considered as Risk Parameter
15. Monetary policies and cost of finance can be considered as Risk Parameter
18. Risk of Lending because of diversified portfolio can be considered as Risk Parameter
20. Technology Risks - Obsolescence of a company's main technology platform - can be considered as Risk parameter
21. Financial Risks - These are standard for any company – over leveraged, high debt ratio impacted by high interest rates etc - can be considered as Risk parameter

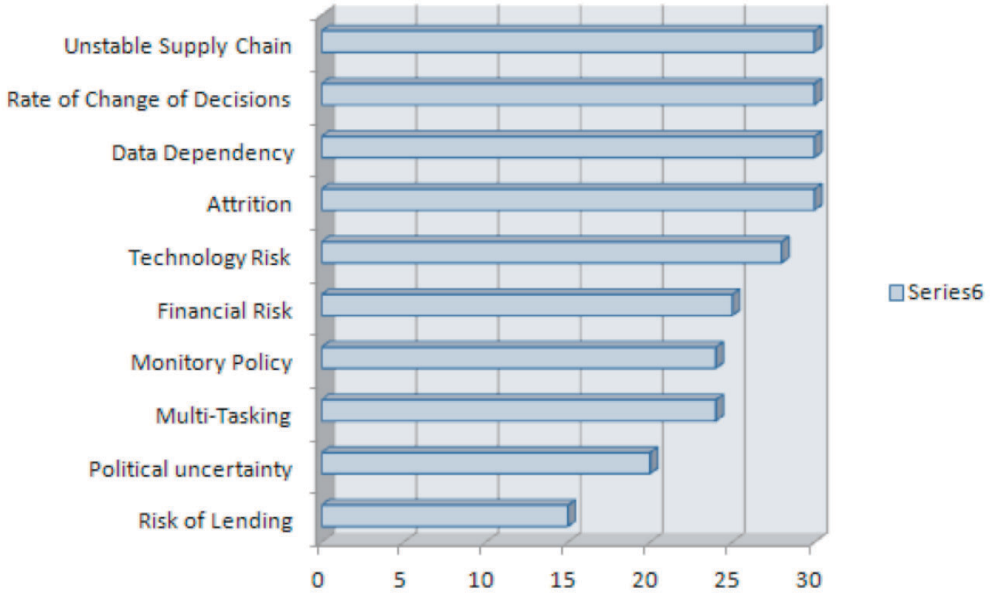

Figure 7: Risk Parameters Bar Diagram

T-Test Results

Established Flexibility Controllability Enterprise Risk confluence patterns are as follows

Flexibility can be measured in three areas - Option, Change Mechanism and Freedom of Choice, All risk can be categorized into two major types of risks - Risk of not having flexibility and Risk of having flexibility, Controllability parameters can be classified into two groups 1) Internal in the system (Known as the self governance) 2) External (This is controlled from outside the system).

Established Flexibility Parameters are as follows

Productivity ; Dynamism ; Flexi-Structure; Adaptability ;Change Management Sensitivity ;Flexi – Manufacturing ;Flexi – Sales ;Economic Indices - Market Side Flexibility ;Supply side of people On time Delivery ; Sensitivity to Quality requirement; Learning Environment ; Business Direction - allocation of Investments ; Customer Relationship Management; Flexibility in Leadership; Supply Chain Flexibility.

Established Controllability Parameters are as follows

Financial Audit; Authority Responsibility Matrix ;Vigilance ; Performance Development Tool; Information Governance; Quality Assurance; Monitoring ;Accounting Ratios; Sales Conversion Ratio.

Govt Regulation

Established Enterprise Risk Parameters are as follows

Multi-Tasking; Attrition; Data Dependency; Rate of Change of Decisions; SCM turnover ratio

Political uncertainty ; Monitory Policy ; Risk of Lending ;Technology Risk ;Financial Risk

Synthesis of Learning and Proposed Parameters

The need for flexibility in management, both at the theoretical and practical levels, has been emphasized by researchers as well as practitioners. There are multiple connotations attached with the concept of flexibility, in different situations.

It implies openness in thinking, adaptiveness to environment, responsiveness to change, versatility of action, contingency, nonrigidity, variability of parameters and specifications, multiplicity of process setting, freedom, liberalization, informal attitude, adjustment, compromise, autonomy of function, agility in action, resilience in systems, elasticity, looseness, customized or tailor made solutions, and broadening of mind. This is only a representative list and many more connotations of flexibility can be identified.

For example, the concept has been most extensively applied in the context of manufacturing as 'Flexible Manufacturing Systems'24. Adler25 reviews the flexibility in automation and finds that the economic definition is the most generic one. He identifies two key dimensions of flexibility, i.e. process and product and finds conceptual difficulty in linking them. From engineer's point of view, the process dimension seems more exciting, whereas from the societal and managerial point of view the product dimension offers bigger challenges and opportunities.

The influence of process and product flexibility on marketing strategy is discussed by Easton and Rothschild26 where they have examined the tradeoff between flexibility and financial efficiency. According to them flexibility is the ability of a system to take on a variety of forms. In their analysis, they have considered flexibility and adaptability to be two ends of a continuum. They treat the flexibility to be a second order dimension, i.e. it concerns changes in states rather than the states themselves.

It is widely accepted that, organizations today are facing the issue of responding continually to an environment, which is increasingly dynamic, complex and uncertain as a consequence of demographic changes, a more global economy, the "hypercompetition", or knowledge-based competition (Daft and Lewin, 1993). A company's competitivity will depend not only on being efficient in their organizational routines but also on their innovative ability at the same time (Abernathy, 1978; Hayes and Abernathy, 1980) which represents the notion of balance between exploration (be innovative – radical change) and exploitation (be efficient in organizational routines – incremental change). Such balance allows the firm to obtain and sustain its competitive advantage which, according to Sommer has to be redefined in terms of organizational speed and flexibility (Sommer, 2003). This characteristic is related to develop new dynamic processes that enable for instance, a fast reconfiguration of the resource base (Helfat *et al*., 2007, Eisenhardt and Martin 2000, Teece *et al*. 1997), changing the nature of activities (Aaker and Mascarenhas, 1984), or dismantling of current strategies (Harrigan, 1985).

Summary of key Findings

Identified Selected and Established Macro Pattern of Organizational Flexibility, Controllability and Enterprise Risk Parameters are as follows -

- Flexibility can be measured in three areas - Option, Change Mechanism and Freedom of Choice.
- All risk can be categorized into two major types of risks - Risk of not having flexibility and Risk of having flexibility
- Controllability parameters can be classified into two groups 1) Internal in the system (Known as the self governance) 2) External (This is controlled from outside the system).

Identified Selected and Established Flexibility Parameters are as follows -

Productivity; Dynamism; Flexi-Structure; Adaptability; Change Management Sensitivity; Flexi – Manufacturing; Flexi – Sales; Economic Indices - Market Side Flexibility; Supply side of people, On time Delivery; Sensitivity to Quality requirement; Learning Environment; Business Direction - allocation of Investments; Customer Relationship Management; Flexibility in Leadership; Supply Chain Flexibility

Figure 8: Identified, Selected and Established Flexibility Parameters (the number signifies absolute number of respondents agreed to accept the parameters - considerable amount of consensus were achieved after three rounds of Delphi method.)

Identified Selected and Established Controllability Parameters are as follows

Financial Audit; Authority Responsibility Matrix; Vigilance; Performance Development Tool; Information Governance; Quality Assurance; Monitoring ; Accounting Ratios; Sales Conversion Ratio Govt Regulation.

Figure 9: Identified, Selected and Established Controllability Parameters (the number signifies absolute number of respondents agreed to accept the parameters - considerable amount of consensus were achieved after three rounds of Delphi method.)

Identified Selected and Established Enterprise Risk Parameters are as follows -

Multi-Tasking; Attrition; Data Dependency; Rate of Change of Decisions; SCM turnover ratio

Political uncertainty ; Monitory Policy ; Risk of Lending ;Technology Risk ;Financial Risk

Figure 10: Identified, Selected and Established Risk Parameters (the number signifies absolute number of respondents agreed to accept the parameters - considerable amount of consensus were achieved after three rounds of Delphi method.)

Limitation of Research

The research is contextual and covers only some part of the Industries. Though more than 25% of the respondents belong to different countries but most of the respondents and Industry experts belong to North India.

To form a comprehensive view of Organizational Flexibility, Controllability and Enterprise Risk

Parameters, the sample size needs to be big and should cover different regions of India and world pertaining to various Industries.

Future Research Area

Literature in organizational flexibility mostly caters to the work done in European Business Environment. The literature is still lacking of comprehensive modelling which explains the relationships between its key variables and consequent side effects of such iterations. Exploring these interactions and the dynamic adaptation processes towards the desired adjustment would lead to frame a model which would explain organizational preparedness to response with the change and its adoption model. This idea of flexibility controllability equilibrium model and its adoption framework are the main motivation of the present research.

Concluding Remarks

The main objective of the Research work was to identify the Organizational Flexibility, Controllability and Enterprise Risk Parameters considering the complex paradoxical Business Scenario. The research reflects dynamic interplay between the thesis and antithesis. The Change drivers can be depicted as Risk Parameters. The continua reflecting the thesis and antithesis call for synthesis of two extreme business behaviors.

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