

# Factors of Organization Design and their Impact on Innovation of Startups

Richa Chaturvedi  
Research Scholar  
Human Resource Management  
GITAM University, Visakhapatnam.

**Abstract.** Organizational design research deals with understanding some basic tenets pertaining to an organization. It is a branch of organization science that is concerned with understanding

- (a) How organizations work in terms of aggregating the actions of their members towards organizational goals?
- (b) How to make organizations better? (Puranam, p. 1) .

The process focuses on improving both the technical and people side of the business. The challenge for organizations designers is to execute strategies which enable and aid its adaptability in a dynamic and evolutionary environment to stay ahead of the competition. This study attempts to examine the relationship between Macro Structural elements of the Organization Design and Innovation Performance of Startups. The frame of reference for this study are 63 Start Ups which have been in business for less than ten years. The average employee count of all the Start Ups included in the sample is 57. Regression and Factor Analysis tools have been used to establish the relationship between Organization Design elements and Innovation Performance.

Keywords: Organization Design, Macro Structural, Start Up, Innovation, Top Management Style, Culture & Practices, Strategic Management, Organization Structure, Effective Management of Innovation.

## Introduction

Every organization is optimized to function and operate in an environment which is conducive for its growth and profitability. The extant environment is a key determinant in the strategy adopted by the decision makers to further the interests of their businesses. However, environment is a dynamic entity that keeps altering / evolving in time, space and dimension. This requires every organizational form to alter and shape its strategy to adapt to the evolving environment in order to ensure its relevance and sustain profitability. This is considered as a Macro structural approach of Organization design and was adopted by several luminaries like Thomas Burns, Jay Galbraith, Lawrence and Lorsch, Miles and Snow and many other Organizational scientists (Puranam, 2018, p. 2). They adopted an approach which emphasized on considering an Organization as a whole and not in parts (departmental / sectional) to study its dynamic interactions with the environment.

A Start Up company is a new entrepreneurial venture which aims to meet the marketplace needs by developing a viable business model around a product, service, process or a platform. These are usually companies designed to effectively develop and validate a scalable business model. Start-Ups have been observed to have high rates of failure, but the minority of successes include companies that have become large and influential. A lot of Start Ups share the same origin story, a couple of close friends trying to build a company that will change the world. As the company grows, it transitions from a few friends to a team and moves out of the garage and into a real office. Whilst this is an exciting transition and usually, a positive sign, it is also the time when certain growing pains begin to emerge. For a Start Up to survive, sustain and progress they have to synergize their structure, people, practices and reward systems to develop capabilities that gives them an edge over competition. Businesses need a design which compliments speed, innovation, customer focus and improves productivity (Nadler & Tushman, 1997). Macro organizational elements like Top Management Support, Innovation Supportive Strategic Management, Flexible Organization Structure, Effective implementation of Innovation and Innovation Supportive Culture and Practices are some of the cornerstones on which the design of any Start Up can be constructed. Organizations, after accepting the dominant design, tend to segment and specialize their knowledge and rely on standard operating procedures to develop its products. However, when it comes to improvising or innovating in the complex business environment to survive and sustain for a longer duration, the Start Up strategies tend to fall short of expectations.

The sensitivity to comprehend the changing environment and re-defining the organizational strategy may be feasible for big business which have dedicated teams and resources to invest for studying and recommending changes. However, it is the smaller Businesses, MSME and Start Ups, which may not be able to invest the requisite focus and attention towards the changing environmental parameters with their limited resources. However, it is pertinent to mention here that, Architectural innovations place a premium on exploration of design and assimilation of new knowledge. Many established organizations find this type of transition difficult, but Start Ups or new entrants with no established framework are better placed and suited to harness the potential for developing new channels and information to exploit the potential of a new design (Henderson & Clark, 1990) .

This study, essentially attempts to understand the Macro structural elements of Organization Design and their association with innovation in Start Ups. It endeavours to help them adapt to the changing Organizational Environment for ensuring their sustenance and longevity in the turbulent business environment. Although there cannot be a readymade / templated solution for the problems, certain guidelines can be extracted from this research.

### **Literature Review**

Seminal works of various Organizational Scientists have emphasized the importance of organizational transformation which is congruent to the environmental demands. It has been concluded that environmental jolts in an organization facilitate revolutionary transformation (Meyer, 1982). It was emphasized that a business needs a design that complements speed, innovation, customer focus and radically improved productivity (Nadler & Tushman, 1997) Organization designs need to be such that they are easily reconfigurable as per the requirement of the business (Galbraith, 2014). Start Up organizations represent powerful engines of open innovation process (Spender et al, 2017). Hence, the primary focus of small firms and startups, functioning in turbulent environment is to constantly innovate.

A number of common innovation determinants at a macro organizational level have been identified; three primary ones are - Management Support for Innovative Culture, Customer Market Focus and Human Resource Strategies that emphasize innovation. Besides this the author also brings out the relevance of some other major factors viz. High Levels of External and Internal Communication Networking, Flexible Structure and Strategic posture (Read, 2001). In his study Fariborz Damanpour (Damanpour, 1991), undertook a meta-analysis of the relationships between organizational innovation and 13 of its potential determinants which resulted in statistically significant association for managerial attitude towards change, internal and external communication, administrative intensity and professionalism among other factors. In their seminal work (Bookholdt & Service, 1998) surveyed the literature, Organizational Innovations and identified eight broad factors that affect innovativeness; namely Environmental factors, Management styles, Structure of the organization, Organizational Human Resource Management, Key Innovation promoters, Culture and work climate and lastly the Marketing and Customer's response system. In their study, examining the relationship between Organizational structure and Innovation performance of small firms, Andy Cosh, Xiaolin Fu and Alan Hughes (Cosh et al, 2012) asserted that Decentralized decision making, supported by a Formal structure and Written plans, support the ability to innovate in most circumstances and is associated with superior performance than other structures in small firm economies.

Manimala's (Manimala, 1992) study of 167 entrepreneurial case studies highlight a sharp difference between a Pioneering Innovative (PI) Entrepreneur and Ordinary Entrepreneur. The PI Entrepreneurs opts for markets and market segments where they have an assured first mover's advantage, likelihood of inducting experts on board and extensive networking. They enter joint ventures only after great deal of homework and capability development. They also augment the professionals in their management as their units grow larger. Pradeep Khandwalla (Khandwalla P. , 1985) in his ground-breaking study for policy frameworks using a sample of 75 companies yielded a specific framework that he labelled as 'Pioneering Innovative'. This consisted of a group of policies that favored Pioneering of novel technologically sophisticated high quality product in Indian markets, emphasis on Innovation and Experimentation in all operations of organization, Entrepreneurial risk taking, Operational flexibility and Hiring of creative youngsters with considerable responsibility and flexibility. Khandwalla also identified three top management styles that had largest correlation with organization related innovativeness viz. the Entrepreneurial style of pursuing big but risky growth opportunities, the Organic style that emphasizes on improvisation and operational flexibility and the Participative style of decision making. Mehta and Khandwalla (Khandwalla & Mehta, 2004) proposed a model establishing strong association between superior corporate creativity in a regime of intensifying Environmental Pressures and Innovation friendly Business strategies, Organizational Structure, Top Management style, Middle Management Practices and Effective modes of Managing innovations.

### **Research Question and Hypothesis**

The aims of this study is to understand the commercial viability of Innovations and their relationship with Organization Design elements. Hence the following hypothesis were drawn from for the literature reviewed:-

Macro structural elements of organization like:

- H1** - Innovation Supportive Strategic Management has significant association with Innovation Performance of Startup firms.
- H2** - Innovation Supportive Top Management has significant association with innovation Performance of startup firms
- H3** - Flexible Organization Structure has significant association with Innovation Performance of startup firms.
- H4** - Innovation Supportive Practices and Culture have significant association with Innovation Performance startup firms.
- H5** - Effective Management of Innovation has significant association with Innovation Performance.

### **Research Methodology.**

Data for this study was drawn from the interactions and inputs of founders and top executives of major Start Ups through convenience and random sampling. In addition, online publications, offline journals and newspapers were used to identify the relevant Start Ups at various stages of their funding. The founders / executives of these selected Start Ups were contacted through social media and mails for compiling the relevant data. The Data was collected through pre-structured questionnaire on a 5-point scale.

The frame of sample for this study were Start Ups which were not more than 10 years old, in accordance with one of the definitions of Start Ups given by Grant Thornton Start Up report (Harish et al, 2015) published in Start Up India, Ministry of Commerce and Industry website. As per the laid down guidelines, an enterprises comes under the purview of Start Ups if they are 7 to 10 years old and have a revenue of less than 25 crores. The average employee count of all the Start Ups included in the sample is 57.

The questionnaire was prepared after an extensive literature review. The macro structural factors affecting organization design were adopted from works of various researches like (Khandwalla & Mehta, 2004), (Cosh et al, 2012), (Thom, 1990), (Damanpour, 1991), (Henderson & Clark, 1990), (Galbraith, 2014). The statements were constructed on the basis of literature from previous researches. A questionnaire of 52 statements was constructed which included questions examining the effect of six variables namely: -

- Environmental Pressure
- Innovation Supportive Strategic Management
- Innovation Supportive Top Management Style
- Flexible Organization Structure
- Innovation Supportive Practices and Culture
- Effective Implementation of Innovation.

However, as the questions were constructed using previous literature, based mostly on large organizations, the responses from Founders / Top Management Executives of Start Ups pertaining to some statements was irrelevant / absent. This was because the Start Ups were at a very nascent stage of operations and these statements were not applicable to their organizations. Hence the subsequent discussion with experts and founders resulted dropping some variables and the final analysis was done based on 30 statements and 05 variables.

**Macro-structural Organization Design Variables.** The variables used to measure the organization design elements are listed below:-

(a) **Innovation Supportive Strategic Management.** Ozsomer et al. (Ozsomer et al, 1997) maintained that strategic posture is the most important factor in increasing innovation. 'Prospector' type management would tend to see more opportunities than threats through change and innovation (Miles & Snow, 1978). Scores of six scales were aggregated to measure this variable. The first scale measured focus of business on developing unique expertise or a unique market. The second scale measured management impetus on creating long term relations with customers. The third scale measured business focus on customization of products according customer requirements. Interaction with customers and suppliers with the aim of probing new ideas was measured by the fourth scale. Utilization of the firm's unique skills for solving customer problems was measured by the fifth scale. The sixth and the last scale measured the intensity of business focus on providing a wider spectrum of services.

(b) **Innovation Supportive Top Management Style.** As per Norbert Thom (Thom, 1990), the approach of the entrepreneur and managers regarding readiness to innovate, implementing the change, attitude towards risk taking, ability to delegate and open communication creates a climate for open innovation. Communication to stakeholders regarding vision of growth, dynamic managers at helm, global scanning for fresh growth, joint ventures and collaboration are practices which inculcate entrepreneurship (Khandwalla P. , 1992). Score of nine scales were aggregated to measure this variable. The first scale measured the Management's focus towards developing a clear vision and strategy to promote open innovation. The second scale measured the whether value generation through innovation and was clearly defined to employees. The third scale measured the management's inclination towards calculated risk taking and entrepreneurship. Provision of operational flexibility and autonomy to managers was measured by the fourth scale. The fifth scale measured management's propensity to scan national and international markets. Top management commitment towards participative and consultative decision making was measured by the sixth scale. The seventh scale measured clarity in budgeting and allocation of resources. The eighth scale measures the clarity in communication of goals regarding product innovation in the organization. The last scale measures the emphasis on accountability of results.

(c) **Flexible Organization Structure:** Andy Cosh (Cosh et al, 2012) in his study of small firms stressed that small firms perform well with informal and decentralized structure. Organic structure is best suited for turbulent environments (Burns & Stalker, 1961), this theory found much support by many noted organization scientist (Covin & Slevin, 1989). Score of five scales were aggregated to measure this variable. The first scale measures the intensity with which operating decisions are made and influenced by specialists and other knowledgeable persons. The second scale measures the extent to which employees are involved in decision making. The third scale measures the strict authority of hierarchy and rule based governance (scores were reversed for this scale). Whether the tasks are adjusted and redefined through employee team work is measured by the fourth scale. The formalization of the organization was measured through the intensity with which staff (dotted line) relationships with people in professional environment was followed is measured by the fifth scale.

(d) **Effective Management of Innovation.** Aggregated score of six scales were used to measure this scale. Keogh (Keogh, 1999) in his study of Scottish SME's stated that effective human resources and nurturing knowledge helps in increasing the propensity of innovation. The first scale measures whether employees are encouraged to attend external programs and get exposure to fresh ideas. Effective reward management is measured through the second scale. The third scale measures the propensity to create cross functional teams for implementing innovation. Planning, phasing and reviewing innovation is measured by the fourth scale. Realistic appraisal by management in frequent intervals to monitor the progress of innovation is measured through the fifth scale. Extensive internal and external communication is the base for measuring the sixth scale.

(e) **Innovation Supportive Practices and Culture.** Aggregated score of four scales was used to measure this variable. Mc Gourty et al (McGourty et al, 1996) and Hurley and Hult (Hurley & Hult, 1998) in their study of US companies suggested that that an innovative culture facilitates innovation. The first scale measures emphasis on recruitment of bright, innovative and young professionals. Emphasis on providing the employees with challenging assignments forms the basis of the second scale. The third scale measures the intensity with which innovation stories and experiences from within and outside the organization are shared with employees. Management emphasis on generation of fresh ideas was measured through the fourth scale.

**Innovation Performance Measures.** This performance measure concerns with the commercial viability of innovation. This measure has been used in earlier studies also for performance analysis of innovation [ (Cosh et al, 2012) (Laursen & Salter, 2006), ]. It measures the percentage of annual turnover due to new or significantly improved products which were innovated in last three years. Percentage of turnover was segregated in different categories assigned to different range of innovation performance, which were subsequently dummy coded to run multinomial regression.

**Data Analysis.** After collection, the data was subjected to data synthesis in order to identify the missing variables and clean the redundant data. The reliability of questionnaire was determined through Cronbach alpha, which came out to be 0.877, which supports the reliability of the questionnaire and is explained in Table 1. Factor analysis of Macro-structural elements of Organization design was done to assess the factors underlying the Macro structural elements of Organization design. Correlation analysis for variables of organization design and innovation performance was done using Pearson Correlation. A multinomial regression was done to see the association between variables of organization design and innovation performance. The R square was reported.

Reliability Index of the variables

Cronbach's Alpha	N of Items
.877	30

Table 1

## Results And Discussion

A factor analysis conducted to examine the dimensions of the variables. The analysis resulted in a single significant factor, thus indicating one dimensional nature of organization design variables. Table 2 and Table 3 displays the results. In examining correlation of Table 4, it was found that except Flexible Organization Structure, most independent variables of macrostructure of organization design are significantly correlated with one another. Top Management Style has strong correlation with other variables. However, Top Management style with a r value of 0.26 ( $p = 0.037$ ) and Effective Management of Innovation with r value of 0.25 ( $p = 0.048$ ) are the only variable which have a significant correlation with percentage of sales turnover. This is as a result of new or significantly improved goods innovated in last 3 years, which is the measure of innovation performance.

Variance Analysis

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.573	51.464	51.464	2.573	51.464	51.464
2	.917	18.340	69.804			
3	.772	15.441	85.245			
4	.443	8.856	94.101			
5	.295	5.899	100.000			

Table 2: Analysis of Variance

### Principal Component Extraction

	Component
	1
Strategic Management	.564
Top Management Style	.857
Flexible Organization Structure	.447
Practices and Culture	.786
Effective Management of Innovation	.840

Table 3: Extraction of Principal Component

Table 4: Correlation Analysis

**Correlations**

		Strategic Management	Top Management Style	Flexible Organization Structure	Practices and Culture	Effective Administration of Innovation	Percentage Of Turnover due to new or sig, improved goods/services
Strategic Management	Pearson Correlation	1	.348**	.200	.305*	.309*	-.049
	Sig. (2-tailed)		.005	.116	.015	.014	.700
	N	63	63	63	63	63	63
Top Management Style	Pearson Correlation	.348**	1	.346**	.547**	.676**	.262*
	Sig. (2-tailed)	.005		.005	.000	.000	.038
	N	63	63	63	63	63	63
Flexible Organization Structure	Pearson Correlation	.200	.346**	1	.174	.187	.025
	Sig. (2-tailed)	.116	.005		.173	.143	.845
	N	63	63	63	63	63	63
Practices and Culture	Pearson Correlation	.305*	.547**	.174	1	.617**	.147
	Sig. (2-tailed)	.015	.000	.173		.000	.249
	N	63	63	63	63	63	63
Effective Management of innovation	Pearson Correlation	.309*	.676**	.187	.617**	1	.251*
	Sig. (2-tailed)	.014	.000	.143	.000		.048
	N	63	63	63	63	63	63
Percentage Of Turnover due to new or sig, improved goods/services.	Pearson Correlation	-.049	.262*	.025	.147	.251*	1
	Sig. (2-tailed)	.700	.038	.845	.249	.048	
	N	63	63	63	63	63	63

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

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

**Model Fitting Information**

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	142.125			
Final	111.544	30.581	15	.010

Table 5 : Model Fitting Information

Pseudo R Square

Cox and Snell	.385
Nagelkerke	.430
McFadden	.215

Table 6:Pseudo R Square

Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	117.863	6.319	3	.097
Strategic Management	116.611	5.067	3	.167
Top Management Style	116.305	4.761	3	.190
Flexible Organization Structure	112.520	.976	3	.807
Practices and Culture	120.041	8.497	3	.037
Effective Management of Innovation	126.680	15.136	3	.002

Table 7: Likelihood Ratio Test

The multinomial regression analysis was conducted because the dependent variable was divided in categories assigned to different range of performance levels. It examined the association of Macro structural variables of Organization design with Innovation performance as shown in Table 5 and Table 6. Table 7 show that Practices and Culture and Effective Management of Innovation have significant association with Innovation Performance, thereby proving hypothesis H4 and H5 and are supported by the findings of analysis. However, other factors like Strategic Management of Innovation, Flexible Organization Structure and Innovation supported top management style have not been found significantly influencing Innovation Performances in Start Ups. Hence, the hypothesis H1, H2 and H3 are not supported by the findings of this analysis. It can be stated that innovation performance in a Start Up can be superior, if and Practices and Culture are conducive to Innovations and if there is Effective Management of the said innovations. Performances maximized with HR policies and practices adopted are consistent with business strategy, implying that business strategies are followed by HRM policies in determining business performance (Schuler & Jackson, 1987). Similar views have been stated by Baird and Meshoulam (Baird & Meshoulam, 1987), the alignment of redesign processes and HR practices allows organizations to achieve superior performance. Effective reward management careful planning, phasing and reviewing innovations, realistic appraisals and extensive communication are the measures which can help in effective management of innovation. Practices and Culture have significant association with innovation performance as per the result of multinomial regression analysis. Establishing a culture is typically a much more difficult task then establishing any other aspect of the organization, it takes determined and consciously planned effort over a long period of time. Mutual trust, risk taking and tolerance for mistakes become key cultural values in innovation centric organization (Daft, 2012, pp. 342-349) Most of the startups participating in the study are in nascent stage of their establishment and it would take years for them to establish a proper culture, however, the practices adopted by these organizations are innovation centric. Management emphasis on fresh generation of key ideas and increasing the frequency of innovation, recruitment of bright, innovative and young professionals, help in developing a culture which where ideas are rapidly translated into actions and positive business results.

The Table 7 does not indicate a significant association between Innovation Supportive Strategic Management, Innovation Supportive Top Management Style, Flexible Organization Structure with Percentage of Annual Turnover due to new or significantly improved innovative products / service introduced between 2016 and 2018. A study of 65 Indian corporate organizations showed less correlation between Organization structure and Innovation performance (Khandwalla & Mehta, 2004). Redesigning organizations to facilitate corporate creativity is not easy in cultures that are traditional and authoritarian (Khandwalla & Mehta, 2004). The researcher also collected after the subsequent discussion with the founders that they preferred centralized and formal structure in the early stages of their establishment. An interesting anomaly was to see low association between Strategic Management, Top Management Style and Innovation performance. This suggests that Strategic management and Top management Style or at least its dimensions measured in the study plays a much smaller role in the innovation performance of the Startups. Non-significant association of Top Management Style and Innovation Performance finds some congruency with the Grant Thornton report (Harish et al, 2015) published on government website for Startups, which states that Indian entrepreneurs are sensitive about risks and rewards and the Indian culture, conditions people to look down upon failures.

Entrepreneurial style of top management or the 'Prospector' types (Miles & Snow, 1978) of management believes in taking calculated risks, continuously scanning the market and readiness to delegate. Most Indian Start Ups are still in their inception stage, but are showing growth in right trajectory. With proper plans related to goals and execution on these goals through delegation, team work and proper mentorship, Indian startups can become prospectors in true sense.

### **Limitations and Suggestions**

As mentioned earlier this is a study which establishes the association between macro structural elements of organization design and their innovation performance. The sample size was small consisting 63 Start Ups from all sectors. Although, the present study made an attempt to understand the innovation phenomena in context with organization design, however, the innovation in Start Ups is ambiguous and still remains to be defined. The study provides further scope for large samples and controlled sample size of Start Ups specializing in specific areas. This will enable us to understand antecedents of macro structural elements of organization design with innovation performance in Start Ups as the result. Further, comparative research can be carried out between tech and non-tech Start Ups also.

### **References**

- Baird, L., & Meshoulam, I. (1987). Managing Two Fits of Strategic Human Resource Management . *The Academy of Management Review* , 13(1), 116-128.**
- Bookholdt, R. W., & Service, J. L. (1998). Factors Leading to Innovation: A Study of Managers Perspectives. *Creativity Research Journal*, 11(4), 295-307.
- Burns, T., & Stalker, G. M. (1961). *The Management of Innovation*. London: Tavistock Publications .
- Cosh, A., Fu, Xiaolan. & Hughes, A. (2012, September). Organisation Structure and Innovation Performance in Different Environments. *Small Business Economics*, 39(2), 301-317.
- Covin, J. G., & Slevin, D. P. (1989, January). Strategic Management of Small Firms in Hostile and Benign Environments. *Strategic Management Journal*, 10(1), 75-87.
- Daft, R. (2012). New Delhi: Sengage Learning pvt. Ltd.
- Damanpour, F. (1991, September). Organizational Innovation: A Meta-Analysis of Effects of Determinants and Moderators . *The Academy of Management Journal*, 3(3), 555-590.
- Galbraith, J. (2014). *Designing Organizations: Strategy Structure and Process at the Business Unit and Enterprise Levels* (Third ed.). John Wiley & Sons.
- Harish, H. V., Mehra P., Gandhi, K., Gupta, A., Kumar, D., & Bhansali, S. (2015). *The Indian Startup Saga* . Grant Thornton International Ltd. New Delhi: Grant Thornton .
- Henderson, R., & Clark, K. (1990). Architectural Innovation: The reconfiguration of existing product technologies and failure of established firms. *31*, 9-30.
- Hurley, R. F., & Hult, T. (1998). Innovation, Market Orientation and Organizational Learning: An Integration and Empirical Examination. *Journal of Marketing*, 62 (3), 42 - 54.
- Keogh, W. (1999, June). Understanding Processes and Adding Value within Innovative Small Firms. *Knowledge and Process Management: The Journal of Corporate Transformation*, 6(2), 114-125.
- Khandwalla, P. (1985, April 1). Pioneering Innovative Management: An Indian Excellence. *Organization Studies*, 6(2), 161-183.
- Khandwalla, P. (1992). *Innovative Corporate Turnarounds* . New Delhi : Sage Publications .
- Khandwalla, P., & Mehta, K. (2004). Design of Corporate Creativity. *Vikalpa*, 29(1), 13-28.
- Laursen, K., & Salter, A. (2006). Open for Innovation: The Role of Openness in Explaining Innovation Performance among UK manufacturing Firms. *Strategic Management Journal*, 27, 131-150.
- Manimala, M. J. (1992, November ). Entrepreneurial heuristics: A comparison between high PL (pioneering- innovative) and low PI ventures. *Journal of Business Venturing* , 7 (6), 477-504.
- McGourty et al. (1996). Managing Innovations: Lessons from World Class Organizations. *International Journal Of Technology Management*, 11(3), 354-368.
- Meyer, A. D. (1982, December). Adapting to Environmental Jolts . *Administrative Science Quarterly* , 27(4), 515-537.
- Miles, R. E., & Snow, C. C. (1978, July). Organizational Strategy, Structure and Process . *Academy of Management Review* , 3(3).
- Nadler, D., & Tushman, M. (1997). *Competing by design*. Oxford University Press.
- Ozsoy et al. (1997). What makes firms more innovative? A look at organizational and environmental factors. *Journal of Business and Industrial Marketing* , 12(6), 400-416.
- Puranam, P. (2018). *The Microstructure of Organisations* (First ed.). Oxford University Press.
- Puranam, P. (2018). *Microstructure of Organisations*. Oxford University Press.
- Puranam, P. (n.d.). *Microstructure of Organisations*. Oxford University Press.
- Read, A. (2001). Determinants of Successful Organizational Innovation. *Journal of Management Practice*, 31(1), 95-119.
- Schuler, R., & Jackson, S. (1987, August). Linking Competitive Strategies with Human Resource Management Practices. *Academy of Management Executive*, 1(3), 207-219.
- Spender, J. C., Corvello, V., Grimaldi, M. & Ripa, P., (2017). Startups and Open Innovation: a review of literature. *European Journal of Innovation Management*, 20(1), 4-30.
- Thom, N. (1990). Innovation Management in Small and Medium Sized Firms . *Management International Review*, 30(2), 181-192.