The effects of Dimensions of Organizational Structure on Innovation among Academic Business School Libraries in India: An Empirical Study

Champeswar Mishra* and Bulu Maharana[1]

* Champeswar Mishra, Deputy Librarian, Tripura University (A Central University), Suryamaninagar (W), Agartala-799 022, Tripura; Email: champeswarm@gmail.com

[1] Dr Bulu Maharana, Professor & Head, Department of Library and Information Science, Samabalpur University, Jyoti Vihar, Burla-768019, Sambalpur, Odisha 768019; Email: bulumaharana@gmail.com

DOI: 10.29322/IJSRP.9.02.2019.p8674
http://dx.doi.org/10.29322/IJSRP.9.02.2019.p8674

Abstract

Purpose

In an intensify competitive and changing environment, innovation can be considered as a survival strategy to survive and thrive in the 21st century. Organizational dimensions, one of the aspects upon which organizations are based. The purpose of this paper is to investigate the effects of organization structure on innovation among academic management libraries in India.

Design/methodology/approach

The study focused on the leading management libraries of IIMs, those are involved in management education and research activities in the country. Hence, all leading libraries related to teaching, learning and research of IIMs across the country were selected in this study. A structured questionnaire is used to collect data for this study. The quantitative data were analyzed predominately by means of descriptive statistics to test the hypothesis.

Findings

The dimensions of organizational structure i.e vertical complexity, employee participation and organizational complexity are positively related to innovation and have higher OS influence in innovation among academic management libraries. On the other hand, increase in formalization, the degree of centralization and strict adherence to pre-defined roles and rigid rules in the organization are negatively related to innovation in the context of academic management libraries.

Research Limitations

The study is limited to Academic Business School Libraries of Indian Institute of Management (IIM) India. Thus, other scientific and technical libraries are not in the ambit of this study.

Originality/value

In India, there is no study conducted in academic management libraries. This study can be used as a guide for library administrators to accomplish the objectives of the organization by enabling innovation in the context of organizational structure.

Keywords: Organizational Structure, Structural Dimensions, Organizational Innovation, Library Innovation, Academic Management Library, IIMs, Indian Management Schools.

Paper Type: Research paper

I. Introduction

In order to compete in the changing and intensify competitive age and survive and thrive in the turbulent environment, innovation in organizations can be considered as an important factor for success in today's academic environment in higher education. Transformation among academic libraries is most evident and quickly in order to survive and thrive in the 21st century as noted by Stoffle, Renaud, and Veldof (1996). Innovation can be used as an instrument in transforming academic the libraries. Innovation in terms of the application of new and innovative technologies, services, using of new products, process, and methods to transform services and facilities, becomes vital to libraries in dynamic age. A number of external and external factors affect innovation in the organizations noted by Ahuja, Lampert & Tandon (2008). Organizational climate, conducive working atmosphere and organization structure are internal influential factors on organizational innovation. Organization structure is one of the most visible and influential elements of organization form, which, when assessed, could bring out the preparedness of an organization towards innovation (Yamini & Gupta, 2008). Academic libraries are influenced by many factors both in internally or externally. Among them, Organization Structure (OS) can be considered as one of the important influential factors for the success of Library Innovation (LI) in the digital age.

In the literature, it has been noticed the significant relationship between innovation and organizational structure (Aiken,1980; Menguc, 2010; Sahay, 2011). However, it has been found the influence of, OS on innovation in the context of academic libraries, is yet an inception stage and very new, especially in academic Management libraries in particular. In India, there is barely any research conducted influence of organizational structure on innovation in the context of academic libraries. Due to this reason, the researcher has determined to investigate the effect of OS on innovation among Academic Management libraries with reference to leading Indian Business Schools.

II. Literature Review

A. Defining Organizational Structure and related Dimensions

The structure is the significant factor which can be considered the anatomy of the organization that provides the foundation within which the organization functions. Thompson (2017) described “the structure as the means for the organization set limits and boundaries for efficient performance by its employees, by delimiting responsibilities, control over resources, and other matters”. Organizational structure is nothing but an established pattern of relationships various components of parts in an organizational setup

and set of the structure through which an organization divided different responsibilities and then create a harmony between different duties Mintzberg (1979). Further, Mintzberg emphasized that formalization (the standardization of work processes) facilitates innovation, whereas vertical differentiation (the direct supervision inhibits innovation and in the context of service, the effects are in the opposite direction. Organizational structure directs the competence of work in an organization, enhance motivation and enthusiasm of employees and effective coordination among the top management for best performance and subordinates for the flow of plans and goals in the organization to outline the future plans of the organization. Organizational structure and characteristics and dimensions are strongly related to the environment behaviour. As argued by Daft (2015), in a stable environment having a rigid organizational structure can be the characteristics of vertical control, efficiency, specialization, standardization and centralization in the decision-making process. Further, the study argues that in a quickly changing environment, a more flexible structure with a strong horizontal coordination, little standardization, and a centralized decision-making process is required in the success of a turbulent environment. Damanpour (1991) has identified thirteen organizational characteristics which are associated in organizational innovation i.e specialization; functional differentiation; management attitudes towards change; professionalism; decentralization; sources of technical knowledge; administrative intensity, inactive resources; and internal and external communication. Further, the study argued that high formalization, centralization of decisions, and vertical differentiation are directly associated with organizational innovation. Fredrickson (1986) argued that organizational characteristics, centralization, formalization and complexity of tasks have received more attention among organizations due to their stronger influence in strategic decision-making. Organizational complexity is considered one of the important dimensions which play the dominant role in organizational innovation as noted by Zaltman et. al (1973). Further, the study argued that in order to cope with risks and turbulent environment, organizational leaders need to increase “organizational complexity by recruiting people with different knowledge and skill sets and by creating new functional units”. Paswan et. al. (1998) focused on formalization, centralization, environmental uncertainty, and bureaucratization in distribution channels in an organizational structure. Vertical complexity is important for enhancing organization innovation as studied by Robbin (1999), where he established that flat structure reduces promote on and growth opportunities in an organization. Vertical complexity creates an opportunity for employees to meet power, authority, and status needs. Thus, it can be proposed that vertical complexity has a positive and significant relationship with organizational innovation. On the other hand, horizontal complexity has less-defined chain command in an organization where employees have equal input in organizational success. Pavitt (1994) speculated that horizontal complexity develops prime and best opportunities for new product development, especially in an R & D based organization. Bommer and Jalajas (2004) argued that greatest innovations happen in an organization by interaction or coordination among different sections or units with each other to develop new products, process or services to meet the needs of customers. Thus, it can be proposed that horizontal complexity has a positive and significant relationship with organizational innovation.

A Centralization structure is a form of an organization where decision-making lies with the top of the authority in the hierarchy. Lysonski et al. (1995) discussed that in the dimensions of organizational structure, "the degree of centralization of decision-making, formalization of rules and procedures, and structural differentiation in their investigation of environmental uncertainty" have played a significant role in decision-making. Burns and Stalker (1961) argued that a stable environment, leads to mechanistic structures with centralized and hierarchical controls, on the other hand, turbulence environment supports to flattened structures and diversity of professional knowledge and skills. Damanpour and Gopalakrishnan (1998) argued that the framework of organizational innovation can be divided into two dimensions as stable/unstable and predictable/unpredictable. Ferrell and Skinner (1988) described that Centralization is the hierarchical level and dimension of organizational structure which has authority to make a decision in terms of centralization (decision-making power lies with top-level authority) and decentralization (delegating decision to lower levels the organization). Further, Chen and Huang (2007) believed that centralization in OS decreases communication, commitment, and involvement with tasks among participants. An organization having rigid rules with high centralization leads to a lower rate of innovation as it inhibits communication and promotes negative environment in flourishing innovative ideas. Hage and Aiken (1970).Pugh et al (1969) argued that Centralization correlates negatively with all scales of the structuring of activities in an organization. The study further concluded that OS having more specialized, standardized, and formalized the organization, the less it is centralized. West (2000) argued that the higher in centralization in the organization, the less in produce in innovation. West's argument is supported by Vedamanickam (2001), who expressed that decentralization in the organization is positively correlated with workplace innovativeness. McNulty and Ferlie (2004) observed that the success of innovations increasingly requires decentralization in the workplace in order to develop and implement new ideas. Thus, given the general panorama of the past literature which showed a positive relationship between decentralization and innovation, it can be proposed that Centralization has a negative relationship with innovation.

A formalization is a form of organization that focuses on roles and positions rather than the people in the positions and commonly initiated in an attempt to rationalize the decision-making process. Zaltman et al. (1973) described that formalization in organizational system refers to following of specific rules and prescribed procedures in an organization. An organization having low formalization permits openness, and openness among employees encourages new ideas and behaviors (Pierce and Delbecq, 1977). Thus, from the study of the past literature, it can be hypothesized that formalization in the organization has positively related to innovation and very significant.

Employee participation in the decision-making process is very important to get feedback and develop new ideas for the betterment of the organization. Library leaders should encourage and involve their team in implementing new and innovative ideas. Each staff

should be encouraged to share new ideas. West (1990) claimed that an important aspect of successful innovation is the participation of team members in the decision-making process for an innovative idea to be implemented and share for the benefit of the organization.

B. Organizational Innovation

Innovation in present organizational structure and perspectives no more considered as a small idea which can be applied only to new products or service. However, considering the recent trends, innovation is the necessity as a broader perspective among libraries by using the concept of innovation, process, models, strategies and best practices in organizations. While discussing the concept of innovation in Academic Business School Libraries, it's imperative to discuss innovation, the definitions, theories, types, strategies and approaches to innovation in libraries. As observed by Khandwalla (1995), observed strong and positive correlations between participation in the decision-making process and organizational innovations in an Indian context. Shadur, Kienzle and Rodwell (1999), claimed that employees in an organization having larger participation in the decision-making process, leads to greater commitment and organization involvement which ultimately stimulate innovation in the organization. From the discussion of the literature, it can be assumed that Participative in the decision-making process has a positive relationship and significant for innovation.

Innovation can be explained in details in the broader perspective. An innovation is nothing but a new product or service, a new production process technology, a new structure or administrative system, or a new plan or program pertaining to organizational members. Thus, innovation is defined as the adoption of an internally generated or purchased device, system, policy, program, process, product, or service that is new to the adopting organization" (Damanpour& Evan, 1984; Zaltman, Duncan, & Holbek, 1973). Robbins and Barnwell (2006) defined innovation is "the adoption of ideas that are new to the adopting organization, something that can help organizations work in new ways, enter new categories or channels, as well as produce new products or services". Damanpour (1988) defined innovation "as a means of changing an organization either as a response to changes in the external environment or as a pre-emptive action to influence the environment. An innovation is nothing but brings new changes and adopts a change in term of a new product, service, and the process which can be more widely implemented in an organization. Innovation can be distinguished in many categories. However, from past literature, there are three type of innovation that have gained the most attention and popular among organizations i.e. administrative and technical, product and process, and radical and incremental. Technical innovation is an outward process that pertains to products, process, services, and production process technology, whereas an administrative innovation refers administrative processes which indirectly related to the basic work activities of an organization and are more directly related to its management. Product innovation is the introduction of new products or services to meet an external user or market demand, whereas process innovation refers to the adoption of new ideas into an organization's production or service. Dewar and Dutton (1986) have distinguished between Radical Innovation (RI) and Incremental Innovation (II). The radical innovation fundamental change in

organizational innovation and usually implemented on a specific project or work which is generally associated with the development of a new product or service which may impact on organizational culture, structure, resource allocation, services, workplace culture etc in an organization, whereas incremental innovation, on the other hand, incremental innovation is adding value or newness to a previous innovation or ideas without changing the fundamental or original concept. In an organizational setup, managerial attitude and technical knowledge resources stimulate radical innovations (Dewar & Dutton, 1986; Hage, 1980), whereas structural complexity and decentralization facilitate incremental innovations in an organization (Ettlie et al., 1984). Implementation of innovations in organization passes through a number of stages for testing and implementing the new ideas. Rogers (1983), Zaltman et al (1973) and Ducan (1976) suggested in initiation stage i.e perception of problem, information gathering about the problem, evaluation of resources and decision making to adopt the ideas and second one is the implementation stage the utilization of ideas or innovations for the success of the organization. Rowley (2011) proposed three important stages to implement innovation in an organization i.e (i) generating ideas and opportunities, (ii) concept testing and development, and (iii) implementation.

C. Organizational Structure in Libraries

From past literature, there is no comprehensive theory and research exist which can be used to study innovation in Academic Management Libraries. Several literature found on the essence of innovation in organizational success, whereas there is hardly any substantial theoretical approaches found in studying innovation in Academic Management Libraries. Budd (1999) emphasized hierarchical bureaucracy in research libraries which focuses on the primary functional areas of public services and technical services. Pugh (2005) argued that the library organizations should act as living networks i.e decentralized and flattened structures in order to survive in the turbulent environment which ultimately encourages collaboration. Adeyoyin (2006) argues that organizational culture has a positive and significant relationship with innovation. He correlated with Ranganathan's fifth library law i.e the library as a growing organism where it is stated that a flexible organizational culture is vital in the changing in order to survive the rapid changes brought on by technology, collections, and populations. Chang and Wu (2013) assert that 'overly formalized and elaborate structures undermine job satisfaction in organizations'. Hward (1997) analysis on the impact of OS on innovation in research libraries and the study reveals that the key variables that stimulate innovation and in the organization are organizational complexity, where diversification of knowledge is considered as one of the keys and integral component of organizational complexity. Flower (1998) identified fourteen variables which might have an impact on organizational innovation. The study reveals that professional reading and the number of published articles were the significant and positive effect on organizational innovation, on the other hand, the organizational structure was not so significant in the context of innovation.

III. Research Hypotheses

This study examined the impact of organization structure on innovation related to leading academic management libraries of IIMs of the country. Given the general panorama of the literature discussed in this study, the following hypotheses can be presented as follows.

H1: Organizational structure has positively related to innovation and does significantly impact on academic management libraries.

H2: Vertical complexity has positively related to innovation and does significantly impact on academic management libraries.

H3: Increase in formalization structure exhibits innovation and does significantly impact on academic management libraries.

H4: Centralization structure of the organization has positively related to innovation and does significantly impact on academic management libraries.

H5: Employee participation in the decision-making process has a negative relationship with innovation and does not significantly impact on academic management libraries.

H6: Organizational complexity has negatively related to innovation and does not significantly impact on academic management libraries.

H7: Strict adherence to pre-defined roles has positively related to innovation and does significantly impact on academic management libraries.

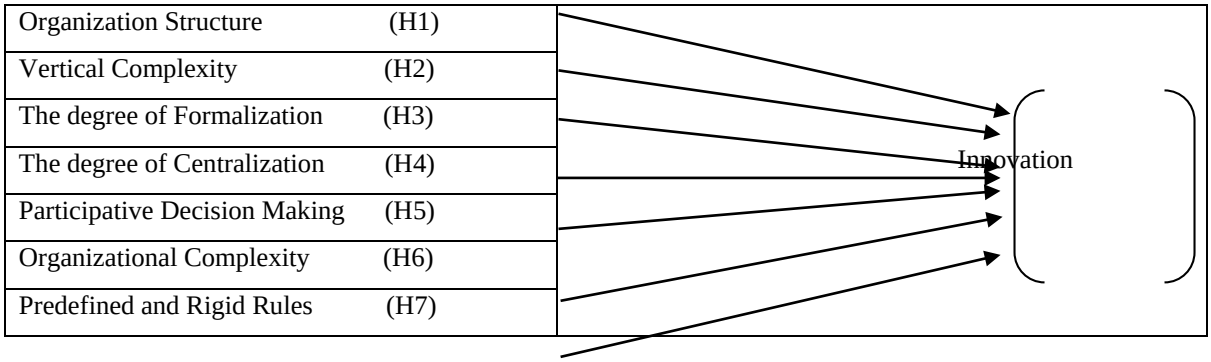

Figure.1: Research Model

IV. Methodology

The study focused on the leading libraries of Indian Institute of Management (IIMs), autonomous institutions under Ministry of Human Resource Development (MHRD), Government of India, those are involved in management education and research activities in the country. Hence, all leading libraries related to teaching, learning and research of IIMs across the country were selected in this study. The questionnaires were sent by email and hard copy to all leading librarians of IIMs with an informational letter stating the research purpose. Data were collected from leading librarians because librarians are the main leaders and play a significant role by making important contributions in achieving the mission, vision and goal of their respective institutions. The questionnaires were

collected through online and personal meeting with the respondents. A total number of 20 questionnaires were distributed among the librarians of all leading libraries of IIMs, out of which n=14 (70%) responses were received for the study. The respondents were expressed their degree of perception and attitude in terms of "Yes" and "No" with particular questions in this study. The survey data from questionnaires were exported to Excel and SPSS for analysis. The quantitative data were analyzed predominately by means of descriptive statistics to test the hypothesis.

V. Results

The formulated hypotheses were tested using inferential statistics Chi-Square test to examine the significance of relationships between observed and expected frequencies. If the '*p*' value is less than 0.05 (P<0.05), then the statistic is considered to be significant. The result of the hypothesis testing is shows in Table-1.

Table-1. Proportional Test for the effect of OS on Innovation

Independent Variable	Response	*p*-Value
H1- Organizational Structure	Yes (14)	0.9996
	No (0)	
H2-Vertical Complexity	Yes (10)	0.0294
	No (4)	
H3-Degree of Formalization	Yes (3)	0.9959
	No (11)	
H4- Degree of Centralization	Yes (4)	0.0294
	No (10)	
H5- Participative Decision Making	Yes (5)	0.1284
	No (9)	
H6- Organizational Complexity	Yes (3)	0.9959
	No (11)	
H7-Predefined Roles and Rigid Rules	Yes (2)	0.0004
	No (12)	

The results presented in Table-1 indicate that the p-value 0.9996 is not significant at P > 0.05 as stated in H1. Thus, H1 is accepted which implies that organizational structure has positively related to innovation and does significantly influence on academic management libraries. H2 indicates that there is a positive relationship exists between vertical complexities with innovation and does significantly influence on academic management libraries. The result of Table-1 showed that the p-value is 0.0294 <0.05, which does not support H2. H3 indicates that increase in formalization structure exhibits innovation and does significant impact among academic management libraries, but the results show that H3 does not support since the p-value is 0.0041 <0.05. Thus, it implies that higher the formalization, the lower rate of innovation among academic management libraries. Similarly, the result of the study not supported the H4 which states that centralization structure of the organization has positively related to innovation and significant among academic management libraries, since the p-value is 0.0294 <0.05. There is significant influence found in the context of employee participation in the decision-making process with innovation and does significantly impact among academic management libraries, since the p-

value is 0.1284> 0.05 is accepting the hypothesis H5. The result of H6 shows that organizational complexity positively related to innovation and has a significant impact among academic management libraries, since the p-value is 0.9959>0.05. Thus, the null hypothesis (H6) is rejected. The result of the study for last hypothesis (H7) is rejected, since the p-value is 0.0004 <0.05, which implies that strict adherence to pre-defined roles is negatively related with innovation and does not significantly impact among academic management libraries.

VI. Discussion

The paper describes a framework to understand the relationships of dimensions of OS on innovation. The objective of the research is to examine and investigate the role of OS among academic management libraries. Based on the theory of organization structure and literature reviewing, this study proposed seven hypotheses about the influence of OS on innovation among academic management libraries. Among these, three hypotheses (H1, H5, H6) are supported, which clearly demonstrate that organizational structure, organizational complexity and employee participation in the decision in innovation have higher OS influence on innovation among academic management libraries. On the other hand, four hypotheses (H2, H3, H4, H7) are not supported, which indicates that vertical complexity, increase in formalization, the degree of centralization, and strict adherence to pre-defined roles and rigid rules in the organization are negatively related to innovation and does not significantly impact on academic management libraries. For the success of innovation in academic libraries, libraries should avoid too much formalization, centralization, complexity in working structure and dependency much on rigidity in rules which largely supported Hage and Aiken's theory (1967) in the library context. Hage and Aiken's theory proposed that organizational dimensions such as complexity positively and centralization, formalization, and stratification negatively related to the rate of innovation. Employee autonomy is equally important in the workplace to be innovative which supported the argument of Maku (2014) who argued that employee engagement assumes a critical precursor role to creativity and innovation in the workplace. Dimensions of organization structures can effectively be implemented in the context of innovation by the active leadership of the librarians engaged in innovative activities in libraries. Leadership is one of the critical factors and play a significant role in organizational innovation in the workplace is highlighted by Scott and Bruce (1994). Leadership is vital in the articulation of vision and strategy which largely impact on structure and culture. The turbulence in the external environment acts invite and lead to innovation, on its contrary, the bureaucratic, hierarchical structure of the library resists change in which librarian as a leader has to strike a balance between these negative forces to create a conducive working culture in an organization that is flexible and can engage in the exploratory activity.

VII. Conclusion and Further Research

The study provides librarians as leaders with empirical data which they have not had before for the management libraries. The findings of the study will alert and guide librarians to adopt the effects of organizational dimensions for the larger benefit of the libraries which ultimately help to achieve the library goals and objectives in evidenced-based approaches to survive and thrive in the 21st century. This study will provide directions to the librarians to design and implementation of development policies in organizations that will promote innovative ideas among employees especially those working in the library operative levels.

This study was subject to a number of limitations worth mentioning in the context of the adoption of innovation. This study is limited to influence of OS on innovation among academic management libraries of school or institutes engaged in imparting teaching and research in the field of Management or management discipline. Only one type of library was studied and libraries of other academic institutions are not in the ambit of the study. Further, the sample of the study is limited to 20 institutions i.e IIMs whereas other private management institutions are excluded in this study. Future research could conduct longitudinal studies, and in other Libraries as well, to establish comparative parameters and reach more definite conclusions. Scholars need to study other libraries of different disciplines through cross-sectional and comparative study to get a proper understanding of the influence of OS on innovation in the context of libraries to make a sustainable and vibrant library to survive and thrive in the 21st century.

References

Adeyoyin, S. O. (2006). Managing the library's corporate culture for organizational efficiency, productivity, and enhanced service. *Library Philosophy and Practice* (e-journal), 75.

Ahuja, G., Lampert, C. M., & Tandon, V. (2008). Moving beyond Schumpeter: management research on the determinants of technological innovation. *Academy of Management Annals.* 2 (1) : 1-98.

Aiken, M., Bacharach, S. B., and French, J. L. (1980). Organizational structure, work process, and proposal making in administrative bureaucracies. *Academy of Management Journal. 23(4):* 631-652.

Bandelin, J. M. (1999). "The academic library: Its context, its purpose, and its operation". *Reference & User Services Quarterly*. 38 (2): 220.

Bommer, M., & Jalajas, D. S. (2004). Innovation sources of large and small technology-based firms. *IEEE Transactions on Engineering Management*. 51(1): 13-18.

Burns, T., & Stalker, G. M. (1961).The management of innovation. Social Science Paperback, London, Tavistock: 104-108.

Chang, C. C., & Wu, C. C. (2013). "Multilevel analysis of work context and social support climate in libraries". *In ASLIB Proceedings: New Information Perspectives.65(6):* 644-658.

Chen, C. J., & Huang, J. W. (2007). How organizational climate and structure affect knowledge management-the social interaction perspective. *International Journal of Information Management*. 27(2) : 104-118

Daft, R. L. (2015). Organization theory and design: Cengage Learning.

Damanpour, F. (1988).Innovation type, radicalness, and the adoption process. *Communication Research*. 15(5): 545-567.

Damanpour, F. (2010).An integration of research findings of the effects of firm size and market competition on product and process innovations. *British Journal of Management*. 21(4): 996-1010.

Damanpour, F., & Aravind, D. (2012). Organizational structure and innovation revisited: From organic to ambidextrous structure. In Handbook of organizational creativity.: 483-513.

Damanpour, F., & Gopalakrishnan, S. (1998). Theories of organizational structure and innovation adoption: the role of environmental change. *Journal of Engineering and Technology Management*. 15 (1): 1-24.

Dasgupta, M., Gupta, R. K., & Sahay, A. (2011).Linking technological innovation, technology strategy and organizational factors: A review. *Global Business Review*. 12 (2): 257-277.

Dewar, R. D., & Dutton, J. E. (1986). The adoption of radical and incremental innovations: An empirical analysis. *Management Science*. 32(11): 1422-1433.

Duncan, R. B. (1976). The ambidextrous organization: Designing dual structures for innovation, in R. Kilman & L. Pondy (eds.) The Management of Organizational Design. New York: North-Holland: 167-188.

Ettlie, J. E. (1983). Organizational policy and innovation among suppliers to the food processing sector.*Academy of Management Journal*. 26 (1) : 27-44.

Ettlie, J. E., Bridges, W. P., & O'keefe, R. D. (1984). Organization strategy and structural differences for radical versus incremental innovation. *Management Science*. 30 (6): 682-695.

Ferrell, O. C., & Skinner, S. J. (1988).Ethical behaviour and bureaucratic structure in marketing research organizations. *Journal of Marketing Research.* 25(1): 103-109.

Fowler, R. K. (1998). The university library as a learning organization for innovation: an exploratory study. *College & Research Libraries.* 59(3): . 220-231.

Fredrickson, J. W. (1986). The strategic decision process and organizational structure. *Academy of Management Review*. 11 (2): 280-297.

Gichohi, P. M. (2014). The role of employee engagement in revitalizing creativity and innovation at the workplace: A survey of selected libraries in Meru County-Kenya. Library Philosophy and Practice, 0_1.

Hage, J. (1980). Theories of organizations. New York: Wiley.

Hage, J., & Aiken, M. (1967).Program change and organizational properties in a comparative analysis. *American Journal of Sociology*. 72(5): 503-519.

Hage, J., & Aiken, M. (1970). Social change in complex organizations, 41, Random House Trade.

Heller, F. A., Pusic, E., Strauss, G., & Wilpert, B. (1998). Organizational participation: Myth and reality, 4, Oxford University Press.

Howard, H. (1977). The relationship between certain organizational variables and the rate of innovation in academic libraries. Unpublished doctoral dissertation). Rutgers, the State University of New Jersey.

Khandwalla, P. N. (1977). The design of organizations. Harcourt, Brace, Jovanovich, New York.

Lysonski, S., Levas, M., & Lavenka, N. (1995). Environmental uncertainty and Organizational Structure: a product management perspective. *Journal of Product and Brand Management,* 4(3): 7-18.

McNulty, T., & Ferlie, E. (2004). Process transformation: Limitations to radical organizational change within public service organizations. *Organization Studies,* 25 (8): 1389-1412.

Menguc, B., and Auh, S. (2010). Development and return on the execution of product innovation capabilities: The role of organizational structure. *Industrial Marketing Management*, 39 (5): 820-831.

Mintzberg, H. (1979). The structuring of organization: A synthesis of the research. Prentice-Hall.

Paswan, A. K., Dant, R. P., & Lumpkin, J. R. (1998).An empirical investigation of the linkages among rationalism, environmental uncertainty, and bureaucratization. *Journal of Business Research*, 43 (3): 125-140.

Pierce, J. L., & Delbecq, A. L. (1977). Organization structure, individual attitudes and innovation. *Academy of Management Review*, 2(1): 27-37.

Prakash, Y., & Gupta, M. (2008).Exploring the relationship between organisation structure and perceived innovation in the manufacturing sector of India. *Singapore Management Review*, 30 (1): 55.

Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. (1968). Dimensions of organization structure. *Administrative Science Quarterly*, 13 (1): 65-105.

Pugh, D. S., Hickson, D. J., Hinings, C. R., & Turner, C. (1969).The context of organization structures.*Administrative Science Quarterly*, 14 (1): 91-114.

Pugh, L. (2005). Managing 21st-century libraries. Lanham, Md.: Scarecrow Press.

Robbins, S. P., & Barnwell, N. (2006).Organisation theory: Concepts and cases. Frenchs Forest, NSW: Pearson Education Australia.

Rogers, E. M. 1983. Diffusion of innovations. New York: Free Press

Rowley, J. (2011). Should your library have an innovation strategy?. *Library Management*. 32 (4/5: 251-265.

Sahay, Y. P., and Gupta, M. (2011).Role of organization structure in innovation in the bulk-drug industry.*Indian Journal of Industrial Relations.* 46 (3): 450-464.

Scott, S. G., & Bruce, R. A. (1994). Determinants of innovative behaviour: A path model of individual innovation in the workplace. *Academy of Management Journal*. 37 (3): 580-607.

Shadur, M. A., Kienzle, R., &Rodwell, J. J. (1999). The relationship between organizational climate and employee perceptions of involvement: The importance of support. *Group & Organization Management.* 24 (4): 479-503.

Stoffle, C. J., Allen, B., Morden, D., & Maloney, K. (2003).Continuing to build the future: academic libraries and their challenges. *portal: Libraries and the Academy*. 3(3): 363-380.

Thompson, J. D. (2017). Organizations in action: Social science bases of administrative theory. Routledge.

Tom, B.& G. M., Stalker (1961).The management of innovation. London: Tavistock: 104–08.

Walton, R. E. (1984). From control to commitment: transforming workforce management in the united states. Division of Research, Harvard Business School.

West, J. (2000). Institutions, information processing, and organization structure in research and development: evidence from the semiconductor industry. *Research Policy*. 29 (3): 349-373.

West, M. A. (2002). Sparkling fountains or stagnant ponds: An integrative model of creativity and innovation implementation in work groups. *Applied Psychology*. 51 (3): 355-387.

Zaltman, G., Duncan, R., & Holbek, J. (1973).Innovations and organizations.John Wiley & Sons.