



Available online at www.sciencedirect.com

ScienceDirect

Procedia
Social and Behavioral Sciences

Procedia - Social and Behavioral Sciences 221 (2016) 126 - 134

SIM 2015 / 13th International Symposium in Management

Chester Barnard: Organisational-Management Code for the 21st Century

Srđan Nikezić^a, Milenko Dželetović^b, Dragan Vučinić^c *

^aFaculty of Science, University of Kragujevac, Kragujevac 34000, Serbia ^bTelekom Serbia, Belgrade 11000, Serbia ^cModern Business School, Belgrade 11000, Serbia

Abstract

Barnard thought that it was possible to improve effectiveness and efficiency through formal organization. He was trying to understand how to obtain organizational survival "maintaining equilibrium of complex character in permanent turbulent environment of physical, biological and social materials and elements and forces" within the organization, exploring in parallel the outer powers to which the organization must adapt on all levels and analysing the functions which in that context are performed by executive directors in the organization as a whole system. This paper explores the influences of Chester Barnard on Blake and Mouton's leadership-management network, Hersey-Blanchard's situational leadership and Maslow's motivational theory, as well as on organisational purpose, communication and team work. This paper examines the relevance of the principles and theories developed by Barnard from the point of today's managers and leaders. According to Barnard, this can be achieved through linking Barnard's central ideas with new concepts of management and leadership. Our opinion is that even today Barnard represents a very important part of the chain of examination and exploration of management and leadership thought.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of SIM 2015 / 13th International Symposium in Management

Keywords: Chester I. Barnard; leadership; management; effectiveness and efficiency; organisational thinking.

^{*} Corresponding author. Tel.: +381645804810; fax: +381645804810. E-mail address: srdjan_nikezic@yahoo.com

1. Introduction

Barnard wrote a book titled *The Functions of the Executive* for the generations to come (Barnard, 1938). The gravity of the task he undertook is seen in the fact that he rewrote the book "eighteen or twenty times" (Wolf, 1973), (Mahoney, 2002). Apart from that, his daily schedule meant eighteen hours of work a day, including his job and other commitments, at the same time reviewing the work on his book (Wolf, 1973). The impact of such work of his on the theory of organization is well-documented (Mahoney, 2002), (Scott, 1987), (Williamson, 1995). *Kenneth Andrews*, a respectable writer, says: "*The Functions of the Executive* remains even today, as at the time of publishing, the most thought-provoking book on organization and management ever written by an executive director" (Gabor, & Mahoney, 2010), (Andrews, 1968), (Mahoney, 2002).

Andrews ascribes the following to Barnard's studies:

- Ability of abstract thinking
- Objectivity as capacity applied both in personal and business practice
- Proficiency in practice
- Ability of paradoxical thinking by using logical thinking and competences at the same time

Fig. 1 represents a brief outline of *Barnard's* life comprising his quality work in the company, life outside the company and community service. All three parts are interrelated and make up an inseparable unity. *Barnard* used the metaphor *symphony* to get across his views of the importance of aesthetic experience in management, because he had a lot of experience in both domains, management (as an executive and chairman of New Jersey Bell Telephone Company), and music (which was his hobby for life and, accordingly, he actively participated in founding Bach Society in *New Jersey* and the *Newark* Theater).

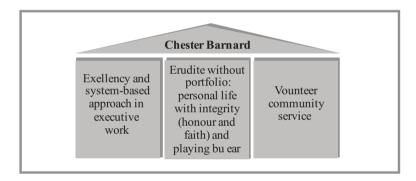


Fig. 1 Outline of Chester Barnard's life.

Barnard's book is an absolute contradiction to the mechanistic concept of earlier management analysts, such as *Frederick Winslow Taylor*. *Barnard* observed the organization as a complex social system within which he managed to move back and forward, demonstrating a unique capability, from empirical experiences towards theoretical tenets and vice versa, keeping up with the latest achievements in psychology, sociology and human relations.

Barnard focused entirely on studying the human factor in the organization, the psychological strength of human behavior and finding the way to use it in the best possible way, like a bustling river, in the interest of the company, often facing its maximum strength and peak of its boundaries. He stressed the importance of the need for professional managers to be dedicated, energetic and consistent in reforms as well as their colleagues in the administrative department so that legal aspects and leadership would be strengthened.

Certain authors think that Barnard's reputation in the domain of management theory and practice has gradually weakened and "disappeared" from the main streams of management literature. It is even stated that his book is rarely quoted and that his only merit is related to the development of "theory of accepting authority". The crucial argument is the obscurity in his writing and exceptional difficulty in reading (Chandran, 1998). Wolf writes: "Over the years I have become aware that Barnard's book has proved to be hard and uninteresting, for a lot of teachers and

their students. My colleagues will often admit in informal conversation they find Barnard unnecessarily abstract, terribly meaningful and extremely difficult to follow" (Wolf, W. 1974).

Jay Chandran thinks that we should re-examine the relevance of the principles and theories developed by *Barnard* from the perspective of contemporary managers and leaders. According to him, this can be achieved by linking *Barnard's* central ideas with new concepts of management and leadership. He feels that *Barnard* still represents an important link for the study and research of management and leadership thought.

Barnard believed it was possible to enhance effectiveness and efficiency by way of formal organization. He tried to understand how to secure the existence of the organization by "maintaining an equilibrium of a complex character in a continuously turbulent environment of physical, biological and social materials, elements and forces" within the organization, at the same time examining the external forces to which the organization must adapt on all levels and analyzing the functions performed by executives in that context within the organization as a unified system (Wren, & Bedeian, 2009), (Barnard, 1938). An organization needs a corporative system because employees often do not have a choice, they may or may not contribute to the success of the organization. In such systems the executives may modify actions and motives by way of influence and control. Barnard's focus on the maintenance of inner equilibrium while the organization is facing external forces of the surroundings resembles a story from a fairy-tale novel compared to the conventional thinking. He rejected the traditional view of the organization with fixed boundaries, consisting of a defined group of employees. Considering the wider surroundings of the organization, Barnard's analyses went far beyond the boundaries of the established way of thinking.

Auhors gave a positive critical view forming an image where they have included, looking from the todays perspective: investors, suppliers, buyers and others into the open system of organization, whose activities, although they were not technically employed in the organization, contributed to the work of the organization (Fig. 2). Barnard observed the organization as a corporative system that rests on individuals as independent personalities; however, he noticed that people actually did not function unless they were conditioned by social relations or interacting with other people. As individuals, people can choose whether they want to enter a certain corporative system or not. They base their choices on **motives** (aims, wishes or current impulses) taking into consideration other available alternatives as well (Wren, & Bedeian, 2009), (Barnard, 1940).

Describing the organization through the function of the executive, *Barnard* emphasizes that the goal is the change of individuals' motives and alternative activities through influence and control. He admits that attempts of *influence and control* are not always successful in achieving goals of the organization and its members. The difference between personal and organizational motives induced *Barnard* to differentiate between *efectiveness and efficiency*. The formal system of cooperation demanded the achievement of a goal or aim and in case the cooperation was successful and the goal achieved, the system was efficient. Barnard had a different view of the issue of efficiency. He considered corporative efficiency to be the result of individual efficiencies because individuals only cooperated in order to fulfill their own motives. Efficiency back then was a standard by which individual motives were fulfilled and only an individual could determine whether such a condition was fulfilled (Wren, & Bedeian, 2009), (Barnard, 1938).

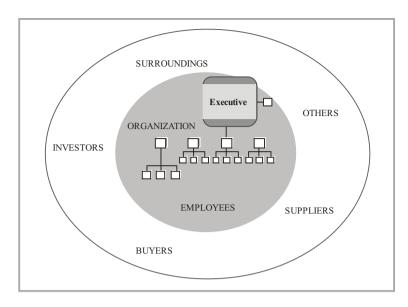


Fig. 2 Work of executive in the open system. (Positive critical authors view)

Formal organization, for Barnard, is a form of cooperation that is "conscious, intentional and purposeful". Formal organization helps:

- Maintenance of organization and inner equilibrium (balance).
- Examining external forces (surroundings) and determining the possible need to revise the "open system"
 approach.
- Analyzing the executive's functions (Wren, 2005).

Barnard explained the organization needed to offer incentives necessary to fulfill individual motives in search of the goals of the group and thus provide its permanent existence, growth and development, as well as the realization of the company vision, which authors have presented as a (Fig. 3). From our point of view today, a formal organization needs to renew its energy or limit the negative energy by offering absolute satisfaction to the organization members. An inefficient organization cannot be efficient and therefore cannot persist outside its space of negative entropy. According to Barnard, efficiency and effectiveness are irrevocable and universal assumptions of formal organizations. Barnard differentiated between individual and organizational goals by using the terms effectiveness and efficiency:

- Effective to fulfill the goals of organization.
- Efficient –to fulfill individual motives, which only the individuals themselves can confirm to be true or not (Wren, 2005).

Critical turnaround on Barnard's understanding of effectiveness and efficiency can be reduced to today's connotations of these concepts which are given by authors. Effectiveness (to do the right things) is linked to company's environment and market, and efficiency (to do it the right way) is linked to internal company's environment whose goal is reducing costs by the product units with simultaneously quality improvement – know as paradoxical way of thinking. Only efficient measures provide quality for the organization to persist, that is, to provide adequate incentives in order to fulfill individual motives and provide cooperation among individuals and organizations.

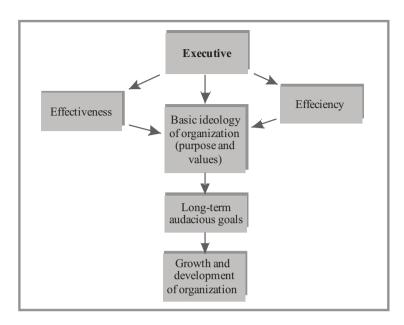


Fig. 3 Chester Barnard's vision of organization. Source: Authors illustration.

Authors believe that's Barnard's vision in today's conditions is archaic, because today a well planned vision is consisted of two main components: fundamental ideology and wished (imagined) future. Fundamental ideology comprises of basic values and basic purpose of a company, and wished future comprises of bold goals (which last from ten to thirty years) and figurative description of how to achieve desired goals.

In the long run, the condition of efficiency provides the existence and success of the organization in its surroundings, through the satisfaction of employees. At the same time, efficiency represents the condition for the accomplishment of long-term, audacious goals, the pre-requisite of which is the fulfilment of individual motives. The corporative system must create "surplus satisfaction" in order to be efficient (Chandran, 1998), (Barnard, 1968). It is the functions of executives that provide efficient adaptation of these processes" (Barnard, 1968). Jay Chandran thinks that Barnard developed a simple and pragmatic synthesis of Frederick Taylor's school of scientific management and Elton Mayo's human relations approach. Barnard cites types of managerial actions that lead towards efficiency and effectiveness and says: " ...the processes related to them (efficiency and effectiveness, author's note) indicate that behaviour in relation to others is either in the form of treating them as *objects manipulated over* by the change of factors that affect them, or *subjects* that need to be *satisfied*." (Barnard, 1968). Chandran says it is necessary to read the book The *Functions of the Executive* several times before being able to comprehend Barnard's discussion and get a new perspective on management, setting aside the word *manipulated*, which was not in use at the time *Barnard* wrote the book, but appears in later editions.

Authors claim that through a new approach to the book and its content, we can percieve the basics for a lot of subsequent theories on leadership and management styles. He specifically cites the example of leadership and management network of Blake, Mouton and McCanse and the Hersey-Blanchard situational leadership model.

2. Organisational - management code (research and contributions)

Blake and Mouton from Texas University developed a management network and published the work in 1964. They modified this network several times, in 1978, 1985, and in 1991 they substituted it for Blake and Anne Adams *McCanse* leadership network, because one of the network creators, Mouton, passed away in 1987 (Blake, & Mouton, 1964, 1978, 1985), (Lyne de Ver, 2009), (Arsovski, & Nikezić, 2013).

Blake and Mouton published a large number of articles and over forty books that depicted their theory (Blake, & Mouton, 2002). Leadership behavior is being researched even today. The leadership network has been applied in management projects in several different researches.

The leadership network is based on Ohio State and Michigan studies, on two leadership dimensions, which Blake and Mouton named "concern about production" and "concern about people". The relevant literature also contains the expressions "care for production" and "care for people" (Mullins, 1996). The concern about people and production is measured by way of inquiry on a scale from 1 - 9. The management network can identify eighty-one combinations of care for people and care for production. The leadership network formed in 1991 by modifying the management network identifies 5 leadership styles. In the leadership network there are five different leadership styles based on care for production (task) and care for people (relations) in 4 squares. The care for production is shown on the horizontal line. The leader marked 9 on the horizontal line has achieved maximum care for production. The care for people (relations) is presented on the vertical line. The leader rated 9 on the vertical line has achieved maximum care for people (Fig. 4).

Paul Hersey, Kenneth Blanchard and Dewey Johnson criticized different approaches to leadership and management that were not based on practice (McClelland, & Burnham, 1995). They state that Ohio State, Michigan and Rensis Likert leadership studies are based on two theoretical concepts – one that focuses on the task and the other on human relations development, but they are not easily applicable in practice as models. Subsequent studies have, under their influence, modified the basic concept and brought it closer to practice (Arsovski, & Nikezić, 2013).

In his Center for Leadership Studies, in the seventies of the last century, Dr Paul Hersey developed a model of situational leadership which is simple and easily applicable in practice, which was his goal in the first place. In its essence, the model did not have the characteristics of a theory, because according to Hersey, theory is something that constructs, analyzes and comprehends the relevant event, whereas a model can be extracted from a whole, copied and used in different situations in practice. We have the example of the mass production model set by Ford in car manufacture.

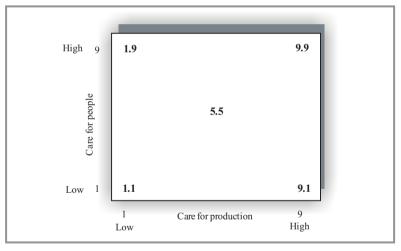


Fig. 4 Leadership network, Source: (Blake, R. & Mouton, J. 1985, 1991), (Arsovski, S. & Nikezić S. 2013).

1.1 - Poor leadership; 1.9 - Club leadership; 9.1 - Authoritative-production leadership; 9.9 - Team leadership; 5.5 – Midway leadership

A model is something practical and applicable and can be used worldwide with a view to the enhancement of leadership management. Professor (Schermerhorn, 2001, 2011) one of the most engaged promoters of Hersey's model of situational leadership in university circles across the USA, agreed with Dr Hersey that theory focused on understanding, and model on the goal, that is, use or implementation.

We may say that a model focuses on implementation, and that is exactly what situational leadership is. Leadership, in Hersey, refers to the combination of directives regarding behavior and support to behavior which represents certain willingness of others to perform specific tasks or functions.

The model faced worldwide dispersion in practice so there came a question whether fifty trainers and educators around the world spoke to leaders and managers in the manner as presented in the model basics. In order to avoid such a situation trainers must be well-trained and experts on the model they are explaining. (Arsovski, Nikezić, 2012).

Douglas McGregor's work, especially the book (The Human Side of Enterprise 1960) (McGregor, 2006), had a deep impact on the educational practice and work of Hersey and Schemerhorn. The book identifies the approach of creating an environment in which employees are motivated through authority, guidelines, control, integration and self-control to accomplish the goals they have set. McGregor defined this motivation through theory X and theory Y. Theory Y is the practical implementation of Dr Abraham Maslow's humanist school (Maslow, 1954). Even today, in 21st century Abraham Maslow's motivational theory which is based on humanistic ideas and relationships towards employees, has significant influence in socially responsible companies like Pepsi Cola. Current chairman of Pepsi Cola company Ms Indra Nooyi is proud of intercompany human relations which are built on theoretical research by Maslow and Barnard's influence on McGregor was of permanent character. Being under the partial influence McGregor creates famous theory XY about workers relation towards work. Organisational management code was established in 1960s and has practical application today in a world famous company Procter & Gamble (P&G), using this theory. According to Paul Hersey and Johan Schemerhorn it is very important for students and professors, as well as company managers and leaders to be familiar with the works of Douglas McGregor and other authorities from the history of leadership and management, because they remain permanently valuable. The date when their works were published is not important, because they have universal value. Hersey formulated it allegorically in a saying: "One can see much further, if standing on a giant's shoulders" (Maslow, A. 1954). In his situational leadership model, Hersey opted for four leadership styles instead of a management network. There could have been five of them, eight or eighty-one styles, but is questionable whether it would have a true use value in that case, and whether it would be so simple. Nobody wants a model that is too complicated, but a model that can be memorized and used. A lot of theories and models from the domain of management and organization are too complex. They often seem as if designed for communicating with scientists, instead of company leaders and managers. Models must be projected for managers and leaders as ultimate beneficiaries from the very beginning, that is, they need to be applicable in reality. Is there any value in something that does not provide more efficient work and is not applied in company management? (Schermerhorn, 2001).

Analyzing situational leadership, (Hersey, & Blanchard, 1988) a lot of researchers came to a conclusion that a situational leader who has adapted his style of leadership/management to organizational factors and characteristics would, according to Barnard's model, probably achieve only one result – effectiveness or efficiency.

Today's research, whose focal point is the debate on the quality of leadership/ management network and situational model, and on what model is more applicable in practice and gives better results, highlights the findings whether Barnard's conditions of efficiency and effectiveness have been fulfilled in the first or in the second model, that is, leadership/management style. Barnard, according to Claude S. George, constantly repeated how important it was for an individual to focus on cooperation. This focus could, of course, be in the form of an order that would be acceptable (therefore, in Hersey-Blanchard most orthodox management style in the situational model- autocratic-directive model) as authoritative only in case the individual (1) understood it, (2) believed it to be consistent with the purpose of the organization, (3) believed it to be compatible with his personal interests, and (4) was capable of acting accordingly.

A leader/manager with a need for personal success will probably treat individuals as objects, according to Barnard's typology of influence on staff, and he will manipulate them in the interest of his own goals (toxic leader). A leader/manager with a need for affiliation will probably treat staff as subjects that need to be satisfied. In the leadership/management network this position is marked 9.9 (accomplished efficiency) with satisfied subjects (staff).

A leader /manager with a need for strength (power) in the organization will probably try to balance things and establish equilibrium in the "wet pendulum" manner. He will be in the "mid-way" position. In the leadership/management network he will "swing" between 1.9 and 9.1. This kind of situation cannot last for long

because the crisis deepens, conflicts within the organization get stronger and the situation must be dealt with by way of short-term measures, within the period from six to twelve months at the most. The only solution according to Barnard is conscious acceptance of an individual as an authoritative leader along with accomplishing efficiency (fulfillment of four listed preconditions for cooperation) (Barnard, 1938), (George, 1968).

Situational leadership, through McClelland's research (McClelland, D. & Burnham, D. 1995) is only possible in the long run in the case of a leader/manager with a need for affiliation (delegating leadership style). It is then that Barnard's condition of efficiency is fulfilled. In the two other cases: the leader's need for strength (authoritarian situational leadership) or need for success (trainer-participatory situational leadership) the acceptance according to Barnard is only mitigated by conscious focus on cooperation among staff.

At the beginning of 21st century the impact of Barnard through Pareto's research may be observed through theories of heliotropic systems, social constructionism and emotional intelligence and especially through the Pareto principle (also known as the 80–20 rule). Heliotropic systems are mentioned in scientific research and we come to an intriguing conclusion that human systems (organizations) are mostly of a heliotropic character, which means they demonstrate the mood and automatic tendency to develop towards positive, anticipated snapshots of the future. Plants have the tendency to grow towards the sunlight, and there is a similar process in human systems. Plants turn towards the sun. That is an interaction among people, microorganisms and light (Jaworski, 2011), (Cooperrider, 2000, 2005). Social constructionism is associated with artificial intelligence as fundamental and our intertwined current and future knowledge of organization.

Authors think that there is a direct organisational – management code between research of Chester Barnard and the research (theoretical and practical) which happened at end of 20th century and beginning of 21st century. Barnard's purpose and goals of an organisation as a part of formal organisation can be followed by (Collins, & Porras, 2002), where purpose is defined as a part of basic ideology of every organisation and is defined as a reason for companie's existance and lasts as long as the company lasts. Purpose of a company is always defined in one sentence, for example Walt Disney is not to produce movies but to make people happy.

Communication, as a third element of Barnard's formal organisation can be "recognised" in today's conditions of connectivity and the leaders role in communicating with his followers over the communication triangle and field of experience. At the end formal and informal organisation of Chester Barnard are still recognizable in teams and networks, and especially, there is a clear turnaround lately towards networks as a concept which have torn down earlier settings which have dominated in intellectual arguments, and even on Barnard's postulate about formal and informal organisations.

Critically analysing Barnard's work, authors can not escape the time in which Barnard worked and lived. His extraordinary achievements and commitment on his book's work show that it was written for some future time (current time), as he himself says. Although he seems to be archaic, even sometimes tedious, by deeper analysing his ideas can be approached to core things which are inevitably related for every current company: protection of workers, ethical principles, environment, project management, in one word building a better world for each individual as equal member of the society who directly participates in leading large companies. Organisational code which permeates Barnard's wok across Herbert Simon's, Oliver Williamson's and Elinor Ostrom's; won the Nobel Prize (last two authors in 21st) is the direct link between management, administration and leadership of Chester Barnard and his followers.

3. Conclusion

Authors think that research done by Chester Barnard have to be critically observed for the today's perspective taking into account all positive trends and influences which he performed on many researches and theorists over the long period of time. Organisational - management for 21st century has to be taken conditionally, but with great attention, because if it was established for a direct link between Barnard's work and today's conditions in which world economy operates. His humanistic approach to organisation and followers we have tried to follow over the long period of time up until today. His understanding of formal and informal organisation, communication, organizational purposes, effectiveness and efficiency, vision, leadership, teams, networks, project management can be observed as a role model and organisational code in 21st century. We have emphasised the differences between previous understanding of those terms and current modern comprehension in this paper.

References

Andrews, K. (1968). Introduction to the Thirtieth Anniversary Edition of the Functions of the Executive. (pp. 13-21). Cambridge: Harvard University Press.

Arsovski, S. & Nikezić S. (2013). Leadership: Key to effective management of changes. (pp. 5-225). Ražanj: Municipal Assemblies of Ražanj. (In Serbian).

Arsovski, S., Nikezić. (2012) Leadership: Key to effective management of changes. (pp. 121). Kragujevac: Faculty of Engineering Sciences. (In Serbian).

Barnard, C. (1938). The Functions of the Executive. (pp. 3-290). Cambridge: Harvard University Press.

Barnard, C. (1940). Comments on the Job of the Executive. Harvard Business Review. 18, 295-308.

Barnard, C. (1968). The Functions of the Executive. (pp. 40-61). Cambridge: Harvard University Press.

Blake, R. & McCanse, A. (1991). Leadership Dilemmas - Grid Solutions. (pp. 29.) Houston: Gulf Publishing

Blake, R. & Mouton, J. (1964). The Managerial Grid. (pp. 25-56). Houston: Gulf Publishing.

Blake, R. & Mouton, J. (1978). The New Managerial Grid. (pp. 11-32). Houston: Gulf Publishing.

Blake, R. & Mouton, J. (1985). The Managerial Grid III: The Key to Leadership Excellence. (pp. 65-101). Houston: Gulf Publishing.

Blake, R. & Mouton, J. (2002). The Managerial Grid. Thikers.

Chandran, J. (1998). The Relevance of Chester Barnard for Today's Manager. (pp. 1-12). Richard DeVos Graduate School of Management: Northwood University.

Collins, J. & Porras, I. (2002). Built to Last: Successful Habits of Visionary Companies. (pp. 50-60). New York: Harper Business.

Cooperrider, D. (2005). Appreaciative Inquiry: A Positive Revolution in Change. (pp. 25-32) San Francisco: Berrettt-Koehler Publishers.

Cooperrider, D. (2000) Collaborating for Change: Appreaciative Inquiry. (42-65). San Francisco: Berrettt-Koehler Publishers.

Gabor, A. & Mahoney, J. (2010). Chester Barnard and the Systems Approach to Nurturing Organizations. Working papers. *University Press*. 70-

George, C. (1968). The History of Management Thought. (pp. 132-133). Englewood Cliffs: Prentice-Hall.

Hersey, P. & Blanchard, K. (1988). Management of Organizational Behavior: Utilizing Human Resources. (12-18). Englewood Cliffs: Prentice Hall.

Hersey, P., Blanchard, K. & Dewey, J. (2001). Management of Organizational Behavior: Leading Human Resources. (pp. 118). Prentice - Hall of India Private Limited.

Jaworski, J. (2011). Synchronicity: The Inner Path of Leadership. (pp. 45-70). San Francisco: Berrettt-Koehler Publishers.

Lyne de Ver, H. (2009). Conceptions of Leadership. (pp. 90-95). Developmental Leadership Program.

Mahoney, J. (2002). The Continuing Relevance of Chester I. Barnard's Teachings to Contemporary Management Education. *International Journal of Organization Theory and Behavior*. 5(1,2) 159-172.

Maslow, A. (1954). Motivation and Personality. (25-40). New York: Harper.

McClelland, D. & Burnham, D. (1978). Power Is the Great Motivator. Harvard Business Review. 103.

McClelland, D. & Burnham, D. (1995). Power Is the Great Motivator. Harvard Business Review. 2-11.

McClelland, D. (1961). The Achievig Society. (14-22). New York: Van Nostrand Reinhold.

McGregor D. (2006). The Human Side of Enterprise. (pp.156). McGraw-Hill Education.

Mullins, L. (1996). Management and Orgazational Behavior. (p. 439-440) London: Pitman Publishing.

Schermerhorn J. (2001). Situational Leadership: Conversations with Paul Hersey. Ohio: Ohio University.

Schermerhorn, J. (2011). Introduction to Management. (pp. 115-140). Southern Illinois University and Wiley.

Scott, W. (1987). Organizations: Rational Natural, and Open Systems. , Englewood Cliff: Prentice-Hall.

Williamson, O. (1995). Chester Barnard and the Incipient Science of Organization. In: Williamson, O.E. (Eds), In Organization Theory: From Chester Barnard to the Present and Beyond. (pp. 172-206). New York: Oxford University Press.

Wolf, W. (1961). Chester I. Barnard (1886-1961). Academy of Management Journal. 4(3) 167-173.

Wolf, W. (1973). Conversations with Chester I. Barnard. (pp. 5-171). New York: Cornell University.

Wolf, W. (1974). The Basic Barnard: An Introduction to Chester I. Barnard and His Theories of Organization and Management. (pp. 7). New York: ILR Press.

Wren, D. & Bedeian, A. (2009). The Evolution of Management Thought. (pp. 322 - 330). John Wiley & Sons.

Wren, D. (2005). The History of Management Thought. (pp. 150-220). John Wiley & Sons