Time as a Strategic Resource in Management of Organizations

P. M., Suresh Kumar and Aithal, Sreeramana

Department of Sociology and Social Work, Christ University, Bangalore - 560029, INDIA, College of Management Commerce, Srinivas University, Mangalore – 575 001, INDIA

20 February 2020

Time as a Strategic Resource in Management of Organizations

Dr. Suresh Kumar P. M.[1] & Dr. P. S. Aithal[2]

[1]Department of Sociology and Social Work, Christ University, Bangalore - 560029, INDIA
E-mail: sureshpmsk@rediffmail.com
[2]College of Management & Commerce, Srinivas University, Mangalore – 575 001, INDIA
E-mail : psaithal@gmail.com

February 2020

ABSTRACT

Human history is derived in terms of time. Man had a sense of time which enabled him to calculate the life of all objects and the very process of ageing and obsolescence from time immemorial. Time is an often ignored but invaluable resource in any organization. All activities, be it procurement, production, or product movement involve time which on its own is not measurable unless it is matched against time. Time gives a true measure of how an organization performs efficiently and effectively. Production and productivity are tuned to time, just as purchase and sales or cash flow and manpower. Time has certain unique properties. Time is intangible, non-recurring, unstoppable and unpreserved. In work situations it has a lot of implications. Therefore, managers to be successful need to have the skills in time management. In the emerging scenario of Business Management, time is becoming another area for management operations to address. Given all peculiarities associated with time, it could be reckoned as a strategic force. This paper addresses the uniqueness of time as a management resource, and examine its role as a strategic force. Attempt is made to depict the life cycle of an organization into distinguishable growth models in relation to time. A time management matrix reflecting the convergence of professional demands and individual time is worked out and a hypothetical productivity time flowchart as a basic reference point of productive efficiency is conceptualized. The role of time as indispensable to benchmarking is also discussed.

Keywords: Time as a strategic force, Time management, Organizational life cycle

1. INTRODUCTION:

Time plays an important role in the life of an organization. All activities in an organization, be it procurement, production or product movement involves time. Time by itself is not measurable, but it serves as a measure for all activities. Production and productivity are tuned to time, just as purchase and sales, or cash flow and manpower. It has the properties of being intangible, non-recurring, unstoppable and unpreserved. In the emerging scenario of Business Management, time is becoming another area for managers to address. By considering time as resource, the perspective of managers and employees on time, its efficiency, and effectiveness in production and service industries, is expected to change to great extent. Table 1 lists various resources used in business processes of various industries. Some reasons such as material, machine, and man are tangible, while others such as information is intangible. Invariably all of these falls in the category of recurring. They could be added up and replenished. Time on the other hand is intangible and nonrecurring. It is lost in process, never to be brought back or converted into a visible or perceivable object.

Table 1 : Various resources used in business industries and their form

S. No.	Resource	Type	Recurring/Nonrecurring
1	Raw Material	Tangible	Recurring
2	Machines	Tangible	Recurring
3	Human Beings	Tangible	Recurring
4	Money	Tangible	Recurring
5	Information	Intangible	Recurring
6	Time	Intangible	Nonrecurring

Managing non-recurring resource is therefore very important, essential, and primary responsibility of managers in organizations and individuals in their career. This paper focuses on conceptual discussion of effective time management by considering it as a strategic resource instead of considering as one among many other resources.

2. RELATED WORKS :

There are only few scholarly publications based on research on the topic time as resource, time management, time management for organizations, and time management for individuals. The prominent work related to time as resource and its effective and efficient management are depicted table 2 along with the focus of the paper.

Table 2 : Review of related research work

S. No.	Area	Focus	Reference
1	Time as a resource	Partitioning of time as an ecological resource	Kronfeld-Schor, N., et al. (2003). [1]
2	Time as a resource	Time as a resource for parents of young children with disabilities	Brotherson, M. J., et al. (1992). [2]
3	Time as a resource	Time as a scarce resource: Government control of the agenda	Döring, H. (1995). [3]
4	Time as a resource	Time as a limited resource	Miritello, G., et al. (2013). [4]
5	Time as a resource	Time like money	Leclerc, F., et al. (1995). [5]
6	Effective and efficient management of time	Time management: Test of a process model	Macan, T. H. (1994). [6]
7	Effective and efficient management of time	Trait Procrastination and Time Management	Lay, C. H., et al. (1993). [7]
8	Effective and efficient management of time	Effects of time-management practices on college grades	Britton, B. K. (1991). [8]
9	Effective and efficient management of time	On the relationship between individual creativity and time management	Zampetakis, L. A., et al. (2010). [9]

10	Effective and efficient management of time	Time and organizations	Bluedorn, A. C., et al. (1988). [10]
11	Time management for organizations	Time and organizational improvisation	Crossan, M., et al. (2005). [11]
12	Time management for organizations	The effect of time-management training on employee attitudes and behaviour	Orpen, C. (1994). [12]
13	Time management for organizations	New developments in effective time management	Margol, J., et al. (1989). [13]
14	Time management for organizations	Making time: Time and management in modern organizations	Whipp, R. et al. (2002). [14]
15	Time management for organizations	It's about time: Temporal structuring in organizations	Orlikowski, W. J., et al. (2002). [15]
16	Time management for individuals	Time and information technology: temporal impacts on individuals, organizations, and society	Lee, H., et al. (2002). [16]
17	Time management for individuals	Accounting for time: managing time in project-based teamworking	Nandhakumar, J., et al. (2001). [17]
18	Time management for individuals	Time in organizations: Its Experience, Explanations and Effects	Butler, R. (1995). [18]
19	Time management for individuals	Time and work	Shipp, A. J., et al. (2014). [19]
20	Time management for individuals	Time structure and purpose, Type A behavior, and the Protestant work ethic	Mudrack, P. E. (1999). [20]
21	Time management	Study of non-traditional and traditional students in terms of their time management behaviors	Forbus, P., et al. (2011). [21]
22	Time management	Competing against time	Stalk, Jr, G., et al. (1990). [22]

3. OBJECTIVES:

The objective of this paper is to develop a conceptual understanding of time as a resource in relation to the management of organizations. More particularly the following objectives are set.

(1) To examine the nature of time and its role as a strategic force in the management of business organizations.
(2) To outline the life cycle of organizations from growth to global presence, passing through various stages.
(3) To develop organizational growth models in relation to stages of growth and bring out corresponding attributes.
(4) To examine the convergence of time and professional demands in the context of a business organisation.

(5) To conceive a hypothetical productivity time distribution model linked to fluctuations across jobs and individual differences.

4. HYPOTHESES:

The following set of hypotheses is proposed. Time is a unique resource which require a management strategy. The growth of organization from its genesis follows a logical sequence of stages which could be expressed through various models relative to time. Individual responsiveness to professional demands in a work setting also create typology of organizations based on variations in appropriate use of time. The time dimension in growth models concurs with entrepreneurial and functional attributes. The productivity of organizations scale-up corresponding to the sequence of functional attribute. An individual's contribution to work reveal slow ascendancy and slow descendancy with optimum productivity reaching a peak of the continuum in the middle. Individual productivity is influenced by various factors, internal and external to the individual. Time deserves to be considered a strategic resource.

5. TIME AS A MANAGEMENT RESOURCE:

The biggest discovery in human history is time. Everything in the world including the speed of light or sound is measured using the yardstick of time [23-24]. The very process of aging would have been a mystery but for the discovery of time. In an organization time is one resource in the sense it is input such as raw materials, human effort, machinery, etc. The output could be counted in numbers probably but the outcome is measurable only in terms of time. i.e. how much work has been accomplished in how much time. Time is an intangible resource, unlike other resources. Even human effort may be intangible to a certain extent, but it could be conceptualised in terms of the number of men engaged, their skill level compounded by factors such as target and motivation. Target is the goal to be achieved and motivation is the inducement to attain [25-28]. Considering that time is going into any activity as an intangible premise, cutting downtime to reduce cost renders it the status of a static resource. Time is beyond control. It keeps moving. The manager of an organization has to keep all other resources moving to match the time. The world over time is adopted as a benchmark. For instance, the pace of an aircraft to reach a destination, the answers produced by a student in an examination, the quality of a winner in a sporting event, the overall efficiency of an individual has all got to do with time. All performances are assessed using a benchmark. Since time serves the function of benchmarking, the whole question of efficiency of a manager depends on how much time is utilized, more appropriately how much time is saved. Utilizing the time to keep work (activity) going, but saving time is about increasing the speed of work and simultaneously reducing the loss of time. Time is lost on various counts. Today there are scientific means to focus on reducing time, such as time and motion study, etc. Currently, instead of considering time as enabler to gather other resources, technology is considered as an enabler to gather and manage the resources including time [29-33].

The 3 'Ps' namely people, product and performance are related to time. How fast a person is in his work, how quickly a product is prepared and how well it has come are fundamental to time management. Performance is measured in quality, product is measured in quantity, and people measured with efficient use of time. Since the efficiency of the person decides the quantity produced and quality of performance, people as a factor is at the core of time management.

6. ORGANIZATIONAL LIFE CYCLE AND BUSINESS MODELS:

Any organization may be conceived to be growing and passing through a life cycle of birth, growth, survival, maturity, expansion, diversification, corporatism, and global presence. Birth starts with the conception of an idea and its execution into a project or business venture. It is relatively short when compared to the next stage namely growth. Growth starts at the point of break-even, and continue till the assets accumulated over time surpasses the investment. Maturity starts here, a very long period marked by a glorious time for the organization characterized by the established capital base, core competency, customer loyalty, brand building, etc. In a mature organization, these stand out as the dominant characteristics and, the human component is subdued serving as a means to the end. Maturity is a long period of stability, while growth is a more critical stage for survival. The existing business is expanded in terms of output by installing new facilities, ancillaries, and assembling outsourced thus far, are built on its own infrastructure and manpower is raised, materials stocked, product lines are created, etc. Diversification follows as the next stage where new products are incorporated to enrich value, increase profit, and market brand name. Many times, changing technology creates new business opportunities resulting in deciding on diversification. Diversification is a necessary evil because new risks are taken as welcome. Diversification also marks the birth of a new business.

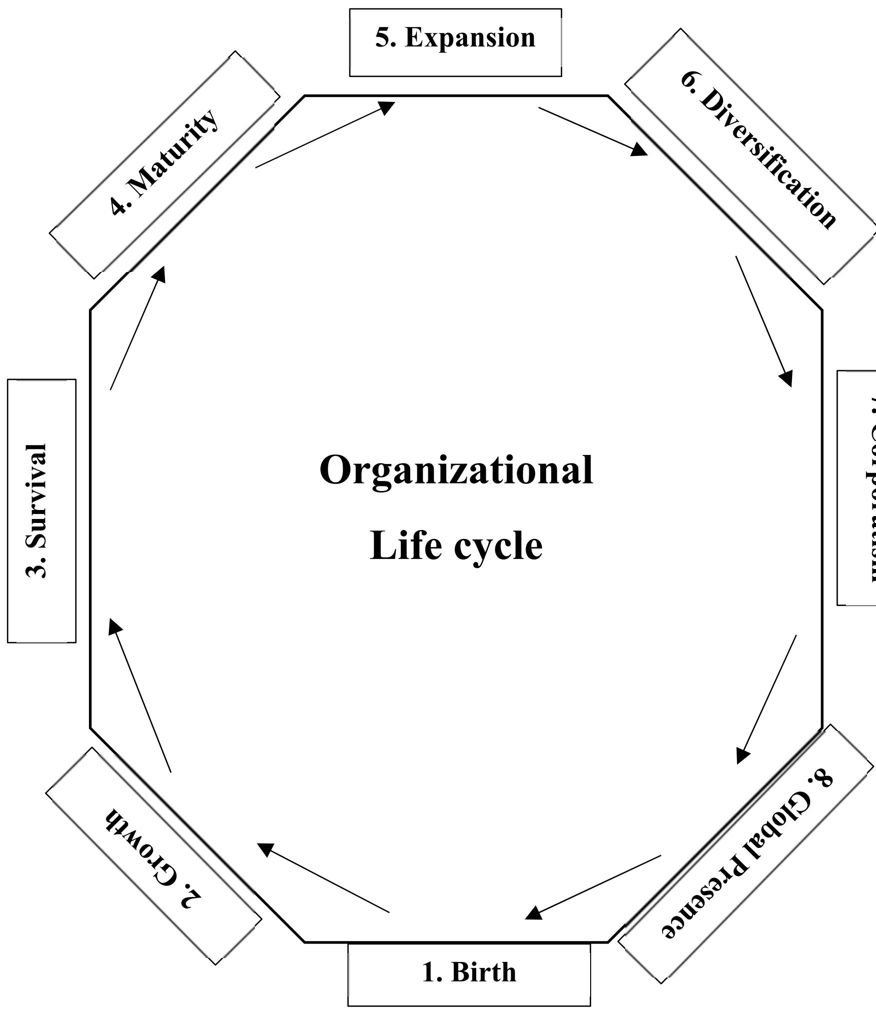

Fig. 1: Organizational Life Cycle and typologies of Business

Birth of an organization involves mooting a business idea, conceptualizing, capital raising, investment, and execution. The entrepreneurial task is very important at the birth stage of the business. Survival is more or less a stage of incubation. Chances of mortality are high since threats are severe. Threats are reduced if feasibility is well studied, business conditions are good, capital backup sufficient and entrepreneurial talents are well demonstrated. Growth is a stage of aggressive build up, adjusting to the business climate. It borrows a lot from birth strategies and survival strategies. Maturity is booming time for business, relatively safe and stable. It is an established stage of prosperity and profit flow. Expansion and diversification are indicators of prosperity, sound finance, and sound business plans. Corporatism means establishing a corporate culture. Very many organizations may fail to reach this and stay complacent with just what it has become. Forward looking organizations grow till corporate and attempt to make a successful global presence.

7. ORGANIZATIONAL GROWTH MODELS:

The time taken to complete the life cycle may vary with the organization and also at each stage of the cycle. However, any business would be safe on reaching the stage of organizational maturity. This cycle would explain the various business models namely 'birth-growth type', 'growth-survival type', 'survival- maturity type', 'maturity - expansion type', 'expansion- diversification type, 'diversification- corporate type' and 'corporate- global type' according to the stage of growth of a business organization (Table 3).

Table 3 : Business models and key attributes

S. No	Organizational model	Entrepreneurial attribute	Functional attribute	Business perception
1	**Birth- Growth model**	Apprehensive	Passive	Evolving
2	**Growth- Survival model**	Optimistic	Active	Stabilizing
3	**Survival – Maturity model**	Rigor	Intensive	Advancing
4	**Maturity – Expansion model**	Ambitious	Aggressive	Progressive
5	**Expansion – Diversification model**	Competitive	Invasive	Forward looking
6	**Corporate model**	Excellence	Expansive	Visionary
7	**Global presence model**	Accomplishment	Visibility	Hallmarking

The entrepreneurial attribute for a nascent organization is characterized by apprehension if not scepticism. That is the stage of challenges and high risk. As it proceeds into the following stages optimism and rigor sets in until moving to the final destination of excellence and accomplishment. The gradation of functional attributes keeps changing from passive to active, intensive to aggressive, invasive to expansive, and finally establishes its presence with visibility. The time dimension in growth models concurs with entrepreneurial and functional attributes. Business perception corresponds to how the business is judged by the business itself and by the external environment. The productivity of organizations scale-up corresponding to the sequence of the functional attribute.

8. TIME AS A RESOURCE VERSUS STRATEGIC FORCE:

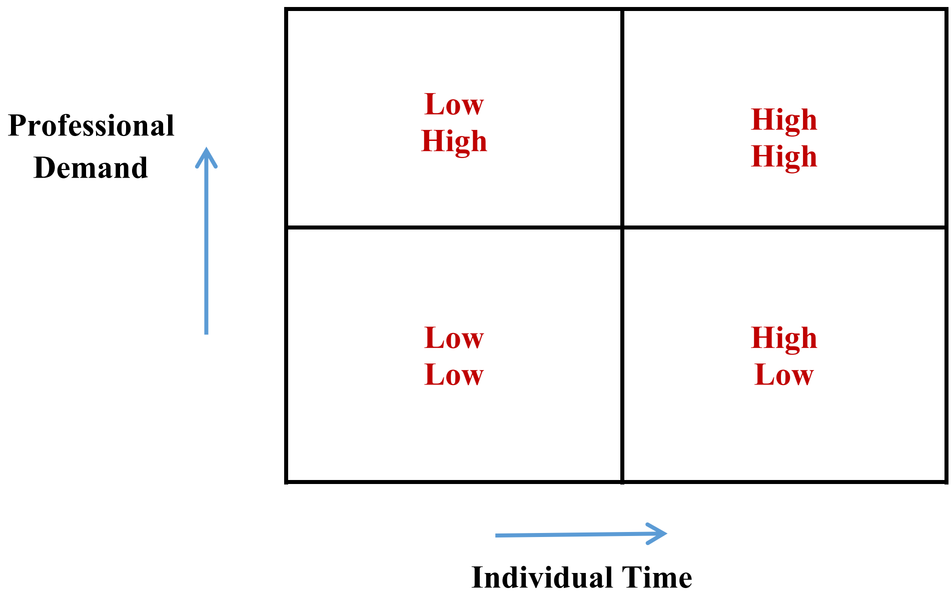

Fig. 2: Organizational Time management Matrix

Usually, any input that goes into making or facilitates doing something is considered a resource. Material and human effort contribute to manufacturing in a business organization both of which are obviously distinct resources. Time could be considered as a third resource because it is also an element involved in performing certain work. Without time, work cannot be executed. That is to say, time serves as a scale denoting duration taken to do work or prepare a product, and the pace of work or quantity produced could be controlled by using time. Time, therefore, is more of a strategic force that gears the organization. Management of time thus becomes crucial to the success of any organization. Figure 2 shows the organisational Time management Matrix where low and high values of individual time and professional demand are depicted.

It is generally agreed that there is a direct relation between utilisation of time and efficiency of an organisation. But the scenario is complex when it comes to professional demands and the individual's inability to meet the demands. Since it is a scarce resource at the disposal of the individual, he has to incorporate all the professional demands into the framework of the functional working hours of the organisation. Professional demands are the expectations of the profession from an individual to perform his roles. Individual time refers to the pace of his work i.e., the extent to which he can deliver the tasks at any given time. This could be considered in a matrix where the individual may be caught in a network of conflicting situations. If the professional demands are low and the individual's time is also low the organisation is considered as lethargic. If individual time is high and professional demand is low it is an unproductive organisation. If the professional demands are high and individual time is low then it is an inefficient organisation. Lastly, if both individual time and professional demands are high it is a performing organisation. A lethargic organisation requires a thorough redesign. The inefficient organisation should look for ways to recharge its employees, re-divide its task, reframe its structure, upgrade its skills, or redefine its prerogatives. The unproductive organisations are critically ill whereas the performing organisations are good negotiators of time.

9. PRODUCTIVITY TIME DISTRIBUTION MODEL:

Based on focus group discussions of various categories of workers and managers in organisations a model for hypothetical productivity time flow is suggested (see figure 3). This serves as a reference point for understanding the productive efficiency of an individual. The most productive time for an individual in a work situation during a period of eight hours of continuous work is only two hours. This is the only $^{1}/_{4}{}^{th}$ of the total time of work performance. It is hypothesised that this peak productivity is somewhere at the midpoint of the entire length of work time. The ascendancy and descendancy show a uniform variation in degree across time. This is hypothetical and serves as a standard pattern to the understanding of time and productivity.

Variations occur depending on the following reasons :

(1) Nature of job:

The more interesting a job appear to an employee, the more he feels involved and productivity goes high crossing constraints of rhythm. Broad distinction is between white collar and blue collar employees. Usually the speed of machinery is set so that fluctuating productivity levels are not reflected among the operative employees. This is a way to surpass the negative effect of nature of the job and consequent variations that may arise out of it. Among white collar employee's greater productivity time is the first half of the time while managers are more consistent till the last quarter.

(2) Individual differences:

Healthy and skilled workers are seen to raise productivity. A positive attitude to work is an individual difference which will reflect in enthusiasm and expenditure of more effort to work. Individuals create a big difference basically through their attitude to work. Personal factors like age, health, energy levels, and family conditions are contributing factors.

(3) Quality of supervision:

Supervision is an important factor in deciding and sustaining productivity. The leadership styles of supervisor can be inspiring or inhibitive to the employee. Usually participative leadership with joint decision making is seen to yield greater productivity. Authoritarian style of supervision may have long term implications on the satisfaction and health of employees.

(4) Incentives and motivation:

Incentives serve as motivators to perform. The disadvantage is that once incentives are withdrawn productivity may fall. Recognition and appreciation are nonmaterial motivators that impact productivity positively.

(5) Rewards and punishments:

Punishments may affect declining productivity due to fear created. This may be in the form of targets and deadlines. Rewards act as a push factor to a certain extent beyond which increased reward may not increase productivity. This is where Herzberg's Hygiene Theory could be used as parallel to distinguish between hygiene factors and motivators. Excessive rewards may drag the employee to a comfort zone where he feels complacent. Then punishment has to be resorted to.

(6) Emotional and psychological factors:

Personality of the individual, liking for work, inclination to perform are as important as skill level, knowledge, ability to follow directions, readiness to accept guidelines, willingness to accept mistakes, stress accumulated over a period of time and so on. Evidently, there are personality types who could be called achievers for whom productivity always maintain high levels.

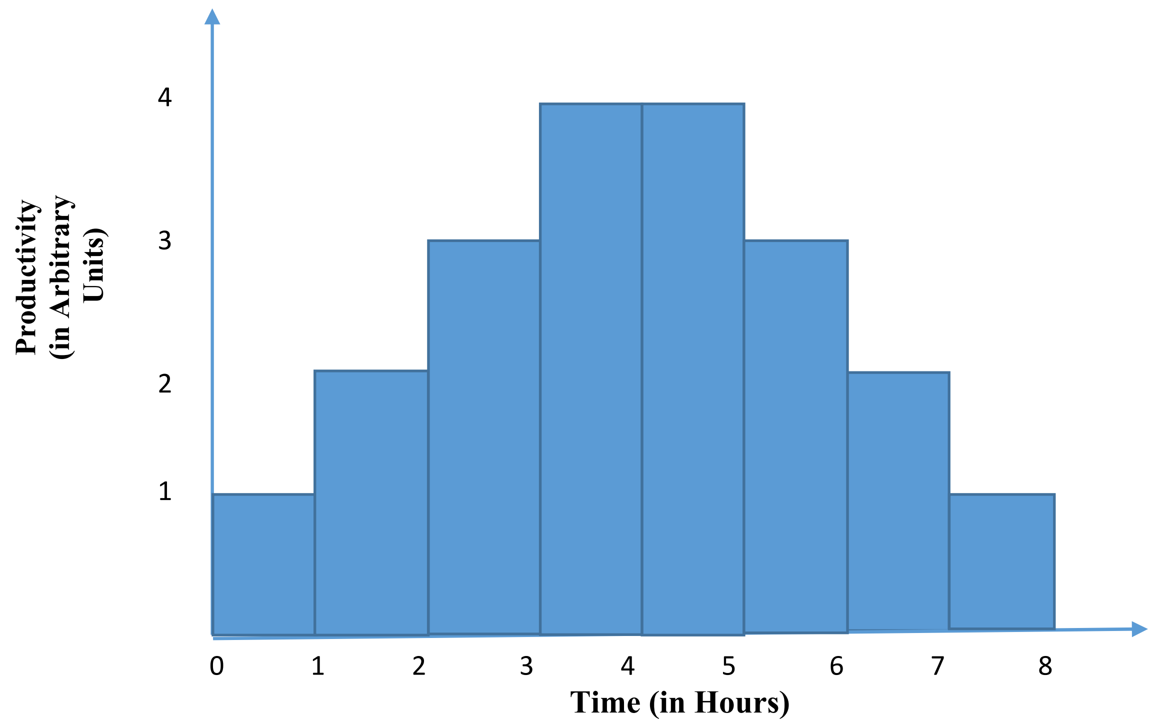

Fig. 3 : Productivity-time distribution model

10. CONCLUSION:

Time management is an emerging area of business management, just like managing any other resources. The challenge is even greater recognizing that it is more than just a resource. May it be the management of any of the resources or the overall management of the entire organization, time is considered as input without able to be cut or set limits. From such a perspective time could be construed as a strategic force whose management is integral to the success of any organization. Time also plays a huge role in the life cycle of a business organization. The scope of time is infinity.

REFERENCES:

[1] Kronfeld-Schor N. & Dayan T. (2003). Partitioning of time as an ecological resource. *Annual review of ecology, evolution, and systematics*, *34*(1), 153-181.

[2] Brotherson M. J., & Goldstein B. L. (1992). Time as a resource and constraint for parents of young children with disabilities: Implications for early intervention services. *Topics in Early Childhood Special Education*, *12*(4), 508-527.

[3] Döring H. (1995). Time as a scarce resource: Government control of the agenda. *Parliaments and majority rule in Western Europe*, 223-46.

[4] Miritello G., Moro E., Lara R., Martínez-López R., Belchamber J., Roberts S. G., & Dunbar R. I. (2013). Time as a limited resource: Communication strategy in mobile phone networks. *Social Networks*, *35*(1), 89-95.

[5] Leclerc F., Schmitt B. H., & Dube L. (1995). Waiting time and decision making: Is time like money?. *Journal of Consumer Research*, *22*(1), 110-119.

[6] Macan T. H. (1994). Time management: Test of a process model. *Journal of applied psychology*, *79*(3), 381.

[7] Lay C. H., & Schouwenburg H. C. (1993). Trait Procrastination, Time Management. *Journal of social Behavior and personality*, *8*(4), 647-662.

[8] Britton B. K., & Tesser, A. (1991). Effects of time-management practices on college grades. *Journal of educational psychology*, *83*(3), 405.

[9] Zampetakis L. A., Bouranta N., & Moustakis V. S. (2010). On the relationship between individual creativity and time management. *Thinking skills and creativity*, *5*(1), 23-32.

[10] Bluedorn A. C., & Denhardt R. B. (1988). Time and organizations. *Journal of management*, *14*(2), 299-320.

[11] Crossan M., Cunha, M. P. E., Vera D., & Cunha J. (2005). Time and organizational improvisation. *Academy of Management Review*, *30*(1), 129-145.

[12] Orpen C. (1994). The effect of time-management training on employee attitudes and behavior: A field experiment. *The Journal of psychology*, *128*(4), 393-396.

[13] Margol J., & Kleiner, B. H. (1989). New developments in effective time management. *Management Decision*, *27*(5).

[14] Whipp R., Adam, B., & Sabelis, I. (Eds.). (2002). *Making time: Time and management in modern organizations*. OUP Oxford.

[15] Orlikowski W. J., & Yates, J. (2002). It's about time: Temporal structuring in organizations. *Organization science*, *13*(6), 684-700.

[16] Lee, H., & Whitley, E. A. (2002). Time and information technology: temporal impacts on individuals, organizations, and society. *The Information Society*, *18*(4), 235-240.

[17] Nandhakumar J., & Jones, M. (2001). Accounting for time: managing time in project-based teamworking. *Accounting, Organizations and Society*, *26*(3), 193-214.

[18] Butler R. (1995). Time in organizations: Its Experience, Explanations and Effects. *Organization studies*, *16*(6), 925-950.

[19] Shipp A. J., & Fried Y. E. (2014). *Time and work, Vol. 1: How time impacts individuals*. Psychology Press.

[20] Mudrack P. E. (1999). Time structure and purpose, Type A behavior, and the Protestant work ethic. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *20*(2), 145-158.

[21] Forbus P., Newbold J. J., & Mehta S. S. (2011). A study of non-traditional and traditional students in terms of their time management behaviors, stress factors, and coping strategies. *Academy of Educational Leadership Journal*, *15*, 109.

[22] Stalk Jr, G., & Hout T. M. (1990). Competing against time. *Research-Technology Management*, *33*(2), 19-24.

[23] Mike Clayton, Time Management, Pearson Education Limited, UK, 2011.

[24] Jack D. Ferner (1995). Successful Time Management, John Wiley & sons Inc, New York.

[25] Aithal P. S. & Suresh Kumar P. M. (2016). Comparative Analysis of Theory X, Theory Y, Theory Z, and Theory A for Managing People and Performance. *International Journal of Scientific Research and Modern Education (IJSRME)*, *1*(1), 803-812. DOI: http://doi.org/10.5281/zenodo.154600.

[26] Aithal P. S. & Suresh Kumar P. M. (2016). Theory A for Optimizing Human Productivity. *IRA-International Journal of Management & Social Sciences,* 4(3), 526-535. DOI : http://dx.doi.org/10.21013/jmss.v4.n3.p2.

[27] Aithal, P. S. and Suresh Kumar P. M. (2016). Organizational Behaviour in 21st Century – Theory A for Managing People for Performance. *IOSR Journal of Business and Management (IOSR-JBM)*, 18(7), 126-134. DOI: http://doi.org/10.9790/487X-180704126134.

[28] Aithal P. S. & Suresh Kumar P. M. (2016). CCE Approach through ABCD Analysis of 'Theory A' on Organizational Performance. *International Journal of Current Research and Modern Education (IJCRME) 1*(2),169-185. DOI: http://dx.doi.org/10.5281/Zenodo.164704.

[29] Aithal P. S. and Shubhrajyotsna Aithal (2018). Study of various General-Purpose Technologies and their contribution towards developing Sustainable Society. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, *3*(2), 16-33. DOI : http://doi.org/10.5281/Zenodo.1409476.

[30] Aithal P. S., Shubhrajyotsna Aithal, (2015). A review on Anticipated Breakthrough Technologies of 21st Century. *International Journal of Research & Development in Technology and Management Sciences*, *21*(6), 112 – 133. DOI : http://doi.org/10.5281/zenodo.61617.

[31] Aithal P. S. & Madhushree L. M. (2019). Information Communication & Computation Technology (ICCT) as a Strategic Tool for Industry Sectors. *International Journal of Applied Engineering and Management Letters (IJAEML)*, *3*(2), 65-80. DOI: http://doi.org/10.5281/zenodo.3549423.

[32] Aithal P. S. & Shubhrajyotsna Aithal, (2015). Ideal Technology Concept & its Realization Opportunity using Nanotechnology*, International Journal of Application or Innovation in Engineering & Management (IJAIEM)*, *4*(2), 153 – 164. DOI: http://doi.org/10.5281/zenodo.61591.

[33] Aithal P. S. (2016). Nanotechnology Innovations & Business Opportunities: A Review. *International Journal of Management, IT and Engineering (IJMIE)*, *6*(1), 182-204. DOI : http://doi.org/10.5281/zenodo.161153.

****