ISSN: 2319-7064

Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

Influence of Project Leadership Styles on Project Performance: A Case of Fair Construction Company in Rwanda

Blaise Oscar Inganda¹, Dr Patrick Mulyungi²

^{1, 2}Jomo Kenyatta University of Agriculture and Technology

Abstract: Many projects continue to fail despite the huge investment and use of established project methods and techniques, as the leadership competency required for successful project performance have been found lacking. A project's success or failure is in part, based on effectively managing the constraints of scope, time, costs, and quality expectations. To achieve this, it is essential that the project manager possess and display appropriate project management leadership. The purpose of this study was to investigate the influence of leadership styles on project performance in Rwanda. The study investigated if authoritative, authoritarian, democratic and permissive leadership styles applied by Consultants' project managers influenced the performance of construction projects in Rwanda. The study adopted a descriptive survey design. This research used a case study design. The target population for this study consisted of 116 Fair construction staff in the five construction projects whose contract period had elapsed at fair construction. Stratified sampling technique was used to select the samples. Data was collected by use of questionnaires, and a pilot study was conducted prior to the main research to pre-test and try out research protocols, data collection instruments, sample strategies, and other research techniques. Both content and construct validation were used to tests the validity of the instrument while Cronbach's coefficient will be used to assess the reliability of the instruments. Data was processed using Software Package for Social Sciences (SPSS) version 21. The study it concluded that Autocratic leadership delays completion of road projects due to high turnover of key staff, poor working relations with contractors, staff low morale and lack of commitment to work since project manager does not entertain queries on design errors, missing items in Bill of Quantitates and conflicting instructions to the contractor. The study recommends use of Transformative and democratic leadership's together in construction projects as they scored highly from respondents below 40years representing 67% of respondents who do not want to be micro managed but need considerable freedom to perform tasks with guidance of project manager. The study also recommended that all senior staff should possess a minimum of postgraduate diploma in project management before being deployed to construction projects.

Keywords: Project, leadership style, project performance

1. Introduction

Many companies fail to become what they want to be because they cannot translate their business strategies into action. Formulating and communicating a strategy is not enough. To realize it fully, effective implementation and leadership is critical. When it comes to the time of implementing a strategy, many companies find themselves stymied at the point of execution (Hsieh &Yik, 2005). Construction companies must utilize planning, organizing, leading and controlling, known as the four basic management functions. Project managers should possess these functions in order to successfully manage projects. Researchers in construction management unequivocally reiterated the fact that project manager is one of the most important success factors of projects. Herbert et al. have gone to an extent of quantifying cost saving of as much as 10% through a well-qualified manager (Herbert et al., 2007). Little attention has been given in the leadership issues in construction (Bresnen et al., 2006) despite the fact that there is so much literature and research in other industries. Langford et al. (2008) believe that the low volume of leadership related studies in construction is due to the lack of understanding of knowledge of the industry on the part of social scientists and lack of understanding of the social sciences by those in the industry (Langford, 2005). Researchers have stressed on the importance of leadership styles and have given a lot of suggestion on the characteristics, attributes and skills that can be effective in the construction industry. Goodwin stresses the importance of effective leadership and points out the skills required of effective project managers (Goodwin, 2003). Study of leadership style and their effectiveness in managing projects is quite relevant to construction industry because construction managers have to wear different hats at different circumstances. Rowlinson et al. (2013) found that construction managers displayed supportive style in feasibility study and pre-contract stages of works eventually transforming to directive styles as construction progressed. Although it is extremely difficult to prove the cause-effect relationship of particular leadership style to the effectiveness of the project, however there are many studies that have been undertaken in the past that provide correlation between the styles of leadership exhibited to the performance of the project.

2. Statement of the Problem

Project Management Body of Knowledge [PMBOK] (2011) argued that a project is considered underperforming when it has not delivered what was required, in line with expectations of cost, quality and time. Robertson & Williams (2006) says despite advance in project management methodologies many projects continue to underperform for a number of reasons including: lack of effective leadership, poor motivation among others. A number of other studies done in Western countries including Dick (2012), Project Management Institute Report [PMI] (2008), Lehtonen, (2001); Samson&Lema, (2002) and Kuprenas (2003), have found out that either under

Volume 7 Issue 11, November 2018

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

ISSN: 2319-7064

Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

performance or decline in performance or failure in projects out rightly is experienced across the globe. Timely completion of construction projects in Rwanda is affected by climatic conditions, changes in design during construction and delayed payments by government. Despite government fast-tracking payments, carefully monitoring weather in project areas and engaging consultants to manage road construction projects on its behalf to improve efficiency, delayed completion is still being observed in most road projects. This continueddelay in completion of road projects has raised the question "what leadership role do projectmanagers play in delayed completion of construction projects?".

An analysis of existing literature on project performance and the role of leadership resulted in findings that are inconsistent. For instance, although several studies (Kissi, et al., 2013) found transformational leadership to be a predicator of project performance, Keegan and DenHartog (2004) found no significant link between transformation leadership style and project performance. In addition, several studies (Chan, et al., 2001; Wang, et al., 2005; Mishra, et al., 2011) have found that project manager's leadership style and project performance are highly correlated. Further, despite Yang, et al., (2011) findings that project characteristics moderates the relationship between teamwork and project performance, Gowan and Mathieu (2005) found that some project characteristics such as technical complexity and project size have no impact on project performance. The motivation of this study therefore was to identify and investigate four aspects of leadership styles that project leaders could utilize to influence the performance of technology projects at Fair construction projects.

3. Objectives of the Study

The general objective of the study was to analyze the effect contract management practices on performance of road construction projects in Kigali City. Some of its specific objectives was to examine the influence of Autocratic leadership style on performance of construction projects managed by Fair Construction Company.

4. Conceptual Framework

Autocratic Leadership Number of staff memos issued per month Punishments for non-Compliance per month Rate of staff turnover due to high- handedness Project performance Project performance Organization's growth, Competitive advantage Customer satisfaction

5. Research Methodology

• Research Design: A descriptive survey design which used interviews both structured and unstructured and Questionnaires will be used in this study to examine the influence of leadership styles on performance of construction projects managed by Fair Construction Company.

- Target Population: The target population for this study consisted of 116 Fair Construction staff in the five construction projects whose contract period had elapsed at Fair Construction who consisted of Engineers, Surveyors, Inspectors, Material Experts and Support staff.
- Sample Size: A total of 80 respondents will constitute the sample size for this study. The sample size was statistically calculated using Slovin's formula.
- Data collection instruments: The questionnaires featured close ended questions that provided quantitative data for statistical analysis.
- Data processing and analysis: Descriptive statistics specifically frequencies and percentages will be generated through descriptive analysis. Inferential statistics mainly correlation and regression will be used to test on the relationship among the variables of the study. Correlation analysis was used to estimate the existence of relationship between the study variables.

6. Summary of Research Findings

6.1 Background Information

The study sought to investigate the demographic profile of the respondents in order to understand the population dynamics while relating them with the objectives of the study. This was done by analyzing the organizations they work with, their gender, age, positions occupied in the organizations, length of time they have been working there and whether they have project management certificates or have other qualification.

6.1.1 Respondents' Gender

In this study majority (64%) of the respondents were male while female respondents were (36%). These results show that men are breaking through the gender gap and carving out successful careers in the technical fields including project management. This can be attributed to their proactive communication, escalation and problem-solving skills.

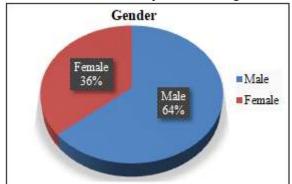


Figure 1: Classification of respondents by their gender

6.1.2 Age of the respondents

Table 1: Age of respondents

		Frequency	Percentage
	<25	12	15
	26-35	40	50
	36-45	15	19
	>45	13	17
	Total	80	100.00

Volume 7 Issue 11, November 2018

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

ISSN: 2319-7064

Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

The study requested the respondent to indicate their age category, from the findings, it was found that most of the respondents as shown by 15 % of the respondents were aged below 25 years, 50% of the respondent were aged between 26 to 35 years, 19% were aged between 36 to 45 years and finally 17% of the respondents indicated that they were aged over 45 years. This is an indication that respondents were well distributed in terms of their age.

6.1.3 Education level of respondents

Table 2: Education level of respondents

		Frequency	Percentage
	Diploma	12	15
	Undergraduate	48	60
	Professional	20	25
	Total	80	100.00

The study results reveal that 15% of the respondents had acquired a diploma, 60% of the respondents indicated that they had acquired bachelor's degree, while 25% had acquired post graduate level of education as their highest level of education. These results imply that majority of the respondents had at least an undergraduate degree and hence understood the information sought by this study. The findings further imply that all the respondents were academically qualified and also familiar with their duties and could dispense them effectively in terms of professional work ability and implementation of projects.

6.3.4 Designation of Respondents in the company

Table 3: Job title in the company

	Frequency	Percentage
Senior Manager	12	15
Project Manager	27	34
Project team member	25	32
Consultant	16	19
Total	80	100.00

The designation of respondents ranged from Engineers, Surveyors, Road inspectors, material experts as well support staff. From table 4.5, 15% of the respondents are senior managers, 34% of the respondents are project managers, 32% of the respondents are project team members, and 16% of the respondents are consultants.

6.2 Influence of Autocratic leadership style on performance of construction projects at Fair Construction Company

The study sought the view of the respondents regarding Autocratic leadership style onperformance of construction projects at Fair Construction Company. Respondents' opinion on Autocratic leadership style onperformance of construction projects was captured using 1-Strongly disagree; 2 – Disagree; 3 – Indifferent; 4 – Agree; 5 – Strongly agree. The statements, respondents' opinions and their percentages are as shown below:

Table 4: Respondents views on Autocratic leadership style on performance of construction projects

Statements		Mean	Standard deviation
Project manager (R.E) makes decisions on roadproject management without entertaining anysuggestions.	80	4.05	0.887
Project manager (R.E) rewards handsomely thoseroyal to him.	80	4.31	0.766
The project manager (R.E) punishes those whoquestion the accuracy of some designs and instructions to the contractor	80	3.85	1.040
Project manager (R.E) commands and expects total compliance at all times without question.	80	2.26	0.910

Table 4 above summarizes the influence of Autocratic leadership style onperformance of construction projects at Fair Construction Company. From the findings, most of the respondents did not agree that Project manager (R.E) makes decisions on road project management without entertaining any suggestions. Some respondents believed that the project manager needs to be firm, decisive and task oriented. This would ensure that designs are followed strictly without variations and together with rewarding handsomely those royal to him influence completion time of construction projects as indicated by mean scores of 4.05 and 4.31respectively.Respondents also did not agree that the project manager (R.E) punishes those who questionthe accuracy of some designs and instructions to the contractor and that he commands total compliance at all times without question affect performance of construction projects as indicated by mean scores of 3.85 and 2.26 respectively.

7. Conclusions and Recommendations

7.1 Conclusions

On influence of Autocratic leadership on performance of construction projects, from the findings of the study, Autocratic leadership was the least employed leadership style by project managers for the five construction projects studied. Respondents did not agree that Project manager (R.E) makes all decisions on road project management without entertaining any suggestions and neither does he reward handsomely those royal to him. The study also noted respondents did not agree that the project manager (R.E) punishes those who question the accuracy of some designs and instructions to the contractor and that he commands total compliance at all times without question since this would result in abuse of office, killing staff morale and high turnover of staff since most respondents would prefer to leave the project.

7.2 Recommendations

Transformative and democratic leadership be employed concurrently by project managers to ensure effective and efficient road construction management. The two leadership styles scored highly from respondents where 67% are below 40years thus belonging to generation Y and X born in1980's and 1990s who do not want to be micro managed but need considerable freedom to complete their task with a guiding hand of project manager.

Volume 7 Issue 11, November 2018 www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

ISSN: 2319-7064

Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

References

- [1] Abdel-Hamid, T.K. & Madnick, S.E. (1990). The elusive silver lining: How we fail to learn from software development failures. Sloan Management Review, Vol. 32, pp. 39-48.
- [2] Ahiazu, A. I. (1989). Theory A system of work organization for the modern African workplace. International Studies of Management and Organization, Vol. 19, No.1, pp. 6-27.
- [3] Amin, M.E. (2005). Social science research conception, methodology and analysis Kampala, Makerere University Printery.
- [4] Arslan, A. &Staub, S. (2013). Theory X and Theory Y Type Leadership Behavior and its Impact on Organizational Performance.
- [5] Avolio, B.J. (1999). Full Leadership Development: Building the Vital Forces in Organizations. Thousand Oaks: CA Sage.
- [6] Bass, B.M. (1990). *Bass and Stogdil's Handbook of Leadership*: Theory, Research and Managerial Applications, 3rded. New York: Free Press.
- [7] Bass, B. M. & Avolio, B. J. (1994). *Improving organizational Effectiveness through Transformational Leadership*. Thousand Oaks, CA: Sage.
- [8] Bennis W. (2007). The challenge of leadership in the modern world: Introduction to special issues. Am. Psychol., Vol. 62, No.1, p. 2-5.
- [9] Bryman, A. a. B. E. (2011). *Business Research Methods*. 3rd Ed. Oxford: Oxford University Press.
- [10] Buckingham, M. and Clifton, D. (2001). Now Discover Your Strengths. (New York, NY: The Free Press.
- [11] Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared Leadership in Teams: An Investigation of Antecedent Conditions and Performance. Academy of Management Journal, Vol. 50, No. 5, pp. 1217-1235.
- [12] Carter, N. (1998). The project manager: An emerging professional. *Journal of Information Systems Management*, Vol. 5, No. 4, pp. 8-14.
- [13] Cash, H. & Fox, R. (1992). Elements of successful project Management. *Journal of system management*, pp.10-12.
- [14] Certo, S. (2002). *Modern Management*, Teora Publishing House, Bucharest, pp. 203-207.
- [15] Chinowsky, P., Diekmann, J. & Galotti, V. (2008). Social Network Model of Construction. Journal of construction engineering and management, Vol. 134, No.10, pp. 804-812.
- [16] Cleland, D.I. (1995). Leadership and the project-management body of knowledge. International Journal of Project Management, Vol. 13, No. 2, pp. 83-88.
- [17] Cleland, D.I. & Ireland L.R. (2007). Project Management: Strategic Design and Implementation, (5th ed). New York: McGraw-Hill.
- [18] Cooper, C. R., & Schindler, P. S. (2008). *Business research methods* (10th Ed.). Boston: McGraw-Hill.
- [19] Creswell, J.W. (2014). Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (4th Ed.). Los Angeles, Calif.: SAGE.
- [20] Cole, G.A. (2002) Personnel and Human Resources Management (5th Ed.) London Book Power.

- [21] Daft, R.L. (2000) Organization Theory and Design (7thed.) USA South Western College Publishing, Thomas Learning.
- [22] Dalota, M. (2007). Innovation management in creative and learning organizations.
- [23] De Marco, T. (1982). *Controlling Software Projects*. New York: Yourden Press.
- [24] Durham, R. C., Chambers, J, A., MacDonald, R. R., Power, K. G., Major, K. (2003). Does cognitivebehavioural therapy influence the long-term outcome of generalized anxiety disorder? An 8–14-year follow-up of two clinical trials. Psycho Med, Vol. 33, pp. 499– 509.
- [25] Faraj, S. & Sproull, L. (2000). Coordinating Expertise in Software Development Teams. Management Science, Vol. 46, No. 12, pp. 1554-1568.
- [26] Ferris, G. R., Treadway, D. C., Perrewe', P. L., Brouer, R. L., Douglas, C., & Lux, S. (2007). Political Skill in Organizations. *Journal of Management*, Vol. 33, pp. 290–320.
- [27] Fielder, F. E. (1969). Leadership. In Gibb, C.A. (Ed). *A New Model, Leadership, Baltimore, Maryland: Penguin Books.*
- [28] Finkelstein, S. and Hambrick D.C (1996). Strategic Leadership: Top Executives and Their Effects on Organizations. West Publishing Company.
- [29] Fu-Jin .W, Shieh .C & Tang, M. (2011). Effect of Leadership Style on Organizational Performance as Viewed from Human Resources Management Strategy. *African journal of business management*, Vol. 4, No, 18, pp. 3924-3936.
- [30] Guzzo, R. A. & Dickson, M. W. (1996). Teams in Organizations. *Annual Review of Psychology*, Vol. 47, No, 1, pp. 307-338.
- [31] Hackman R. P, Wageman, R., (2007). Asking the Right Questions about Leadership Discussion and Conclusion. Am. Psychol., Vol. 61, No, 1, pp. 1-41.
- [32] Hollenbeck, G. P., McCall, M. W., Jr., &Silzer, R. F. (2006). *Leadership Competency Models*. The Leadership Quarterly, Vol. 17, pp. 398–413.
- [33] Howell, J., & Frost, P. (1989). A Laboratory Study of Charismatic Leadership. *Journal of Organizational Behaviour and Human Development Processes*, Vol. 43, pp.243 269.
- [34] Judge, T.A., Bono, J.E., Ilies, R., & Gerhardt, M.W. (2002). Personality and Leadership: A qualitative and quantitative review. *Journal of Applied Psychology*, Vol. 87, pp.765–780.
- [35] Judge, T.A. & Piccolo, R.F. (2004). Transformational and Transactional Leadership: A meta Analytic test of their relative validity, *Journal of Applied Psychology*, Vol. 89, No. 5, pp.775 768.
- [36] Keller, R. (2006). Transformational Leadership, Initiating Structure, and Substitutes for Leadership: A Longitudinal Study of Research and Development Project Performance Teams", Journal of Applied Psychology, Vol.91, No.1, pp202-210.
- [37] Kirsch, D. (2009). Interaction, External Representations and Sense Making. Proceedings of the 31st Annual Conference of the Cognitive Science Society. Austin, TX: Cognitive Science Society, pp. 1103-1108.

Volume 7 Issue 11, November 2018 www.ijsr.net

International Journal of Science and Research (IJSR) ISSN: 2319-7064

Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296

- [38] Krueger, R.A., & Casey, M.A. (2009). *Focus Groups: A practical guide for applied research* (4th Ed.) Thousand Oaks, CA: Sage Publications.
- [39] Lord, R. G., & Hall, R. J. (2005). *Identity, Deep Structure, and the Development of Leadership Skill.* The Leadership Quarterly, Vol.16, No.4, pp. 591-615.
- [40] McGrath, G. R., & MacMillan, I. C. (2000). Entrepreneurial Mindset: Strategies for Continuously Creating Opportunity in an Age of Uncertainty. Harvard Business School Press Books.
- [41] McManus, I. C. (1997). Employing Cognitive Behaviour Therapy to Reduce Unemployment. Commentary. Lancet, Vol.350, pp. 80-81.
- [42] McShane, S. L. & Von Glinow, M. A. (2000). Organizational Behavior. Burr Ridge, IL: Irwin/McGraw-Hill.
- [43] Mehra, A., Smith, B.R., Dixon, A.L. and Robertson, B. (2006). Distributed Leadership in Teams: The Network of Leadership Perceptions and Leadership Performance. The Leadership Quarterly, Vol. 17, pp. 232-245.
- [44] Meindl, J. R., Ehrlich, S. B., &Dukerich, J. M. (1985). *The Romance of Leadership*. Administrative Science Quarterly, Vol.30, pp. 78–102.
- [45] Meredith, J.R., & Mantel Jr., S.J. (2011). *Project Management: A managerial approach* (4th Ed.). New York: John Wiley & Sons, Inc.
- [46] Meyer, G. D. & Heppard, K.A. (2000). Entrepreneurial Strategies: The Dominant Logic of Entrepreneurship. New York, NY: Irwin University Books.
- [47] Mockler, R.J. (1970). *Readings in Management Control*. New York: Appleton Century-Crofts.
- [48] Morris, P. W. G. (1988). Managing project interfaces. In D. I. Cleland, & W. R. King (Ed). *Project Management Handbook* (2nd Ed.). New York: Van Nostrand Reinhold.
- [49] Müller, R. & Turner, J.R. (2007). Matching the Project Managers Leadership Style to Project Type. *International Journal of Project Management*, Vol.25, pp. 21-32.
- [50] Norrie, J. & Walker, D.H.T. (2004). A Balanced Scorecard Approach to Project Management Leadership. *Project Management Journal*, Vol. 35, No.4, pp. 47-56.
- [51] Palmer, C. & Ottley, S. (1990). From Potential to Reality. A report by the British Computer Society Task Group on Hybrid.
- [52] Parasuraman, A, Grewal, D. & Krishnan, R., (2004). *Marketing Research*. Boston, Houghton Mifflin pp. 63.
- [53] Peterson, R.S., Smith, D.B., Martorana, P.V., & Owens, P.D. (2003). The Impact of Chief Executive Officer Personality on Top Management Team Dynamics: One mechanism by which leadership affects organizational performance. Journal of Applied Psychology, Vol. 88, pp. 795–808.
- [54] Pfeffer, J. (1994). *Competitive Advantage through People*. Unleashing the power of the workforce, Harvard Business School Press, Boston.
- [55] Purcell, J., Kinnie, N., Hutchinson, S., Rayton, B. & Swart, J. (2004). *Understanding the People & Performance Link*: Unlocking the Black Box. Research Report, Chartered Institute of Personnel and Development.

- [56] Richard, M., Muschalik, N., Grawe, F., Ozüyaman, S., Knust, E. (2009). *Measuring*
- [57] Organizational Performance: Towards Methodological Best Practice. Journal of Management.
- [58] Robbins, S.P. (1998). Organizational Behavior-Concepts, Controversies, and Applications. (8 ed), Upper Saddle River, NJ: Prentice Hall.
- [59] Rowe, W. G. (2001). Creating Wealth in Organizations: *The Role of Strategic Leadership*. Academy of Management Executive, Vol. 15, pp. 81-94.
- [60] Santamaria-Sánchez, L., Nunez-Nickel, M. & Gago-Rodríguez, S. (2010). The role played by interdependences in ERP implementations: *An empirical analysis of critical factors that minimize elapsed time*. Information & Management Vol. 47, No. 2, pp. 87-95.
- [61] Santora, J. C., Seaton, W. & Saros, J. C. (1999). Changing Times: Entrepreneurial Leadership in a Community-based Nonprofit Organization. *Journal of Leadership Studies*, Vol. 6, No. 3-4, pp. 101 109.
- [62] Stodgily, R. M. (1974). *Handbook of Leadership*. NYC: Free Press.
- [63] Sun, R.Y. (2002). The relationship among the leadership style, organizational culture and organizational effectiveness based on competing value framework: *An Empirical Study for the Institute of Technology in Taiwan*. Doctoral dissertation, National Taipei University, Taipei, Taiwan.
- [64] Tannenbaum, R., & Schmidt, K. H. (1958). *How to Choose a Leadership Style*. Harvard Business Review, March-April.
- [65] Teece, D.J., Pisano, G. & Shuen, A. (1997). Dynamic Capabilities & Strategic Management. Strategic. *Management Journal*, Vol. 18, No.7, pp. 509-533.
- [66] Thamhain, H.J. (2004). Team Leadership Effectiveness in Technology-Based Project Environments. *Project Management Journal*, Vol. 35, No.4, pp. 35-46.
- [67] Trompenaars, F. (1993). *Riding the Waves of Culture*. London, UK: Economist Books.
- [68] Venkataraman, S. (1997). The distinctive Domain of Entrepreneurship Research: An Editor's Perspective, In J. Katz & J. Brodkhaus (Ed), Advances in Entrepreneurship, Firm Emergence, and Growth. Greenwich, CT: JAI, Press, Vol. 3, pp. 19-38.
- [69] Vroom, V.H., &Jago, A. G. (2007). The Role of the Situation in Leadership. Am. Psychol, Vol. 62, No, 1, pp.17-24.
- [70] Weinberg, G. 1998. The Psychology of Computer Programming. Silver Anniversary Edition.
- [71] Yukl, G. (2002). *Leadership in Organizations* (5th ed.). Upper Saddle River, NJ: Prentice-Hall.
- [72] Zhu, W., Chew, I. K. h. & Spangler, W. D. (2005). CEO Transformational Leadership & Organizational Outcomes: The Mediating Role of Human-Capital-Enhancing Human Resource Management. The Leadership Quarterly, Vol. 6, No, 1, pp. 39-52.

Volume 7 Issue 11, November 2018 www.ijsr.net

Licensed Under Creative Commons Attribution CC BY