Resource Rarity: The Public/ Private Universities Sustainable competitiveness Strategy

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Abstract

This paper analyses the effect of resource rarity on sustainable competitiveness of universities. The analysis is embedded on the Resource Based View model (RBV and the balanced scorecard model of performance). According to RBV of strategic Management, competitive advantage is closely related to companies' internal characteristics (value, rarity, inimitability and non-substitutability). The constructs of sustainable competitiveness were derived from the balanced scorecard (Financial; Teaching/Learning; Service/outreach; Scholarship/ Research and Workplace satisfaction). Although RBV is considered one of the most influential theories of strategic management, this paper unveils the empirical evidence of resource rarity on sustainable competitiveness in the service industry (universities). A sample of 262 was selected from 2 universities in Kenya (one private and one public). Using the regression analysis, findings revealed that the public university was superior in resource rarity than the private university and also that resource rarity contributes to sustainable competitiveness in universities.

Key Words: Resource Based View, Resource value; Rarity, Inimitability, Non-substitutability and The balanced scoreard

INTRODUCTION

The means by which some businesses achieve and sustain a competitive advantage over other firms is the central research focus of strategic management (McGee *et al*, 2005). During the late 1970s and the 1980s, the strategy literature emphasized the external environment of the firm. The focus was on the analysis of the industry attractiveness and the competition. The work of Harvard economist Michael Porter was very influential (Hafstrand, 2002).

Strategic analysis and choice continue to form the phase of the strategic management process in which business managers examine and choose a business strategy that allows their business to maintain or create sustainable competitive advantage. Their starting point is to evaluate and determine which competitive advantage provide the basis for distinguishing the firm in the customers' mind from other reasonable alternatives (Pearce and Robinson, 2007)

In the late 1980s and early 1990s, the focus increasingly shifted towards the internal aspects of the firm (Hafstrand, 2002). Research has begun to recognize the use of resource –based capabilities in gaining and maintaining competitive advantage (chandler & Hanks, 1994; Long and Vickers-Koch, 1995; McGee & Finney, 1997). Tracing its roots from the traditional strategic management concept of distinctive competence e.g. (Selznik, 1957; Andrews, 1971), the resource-based view argues that competitive advantage results from firms a firms' resources and its capabilities. Resources include capital equipment, workers and management skills, reputation and brand names (Barney, 1991). Resources are the source of a firm's capabilities; and capabilities refer to a firm's ability to bring together and deploy them advantageously (Day, 1994). While resources are relatively tangible, capabilities are less readily assigned a monetary value, and are often deeply embedded in organizational routines and practices, thereby making them less subject to imitation by present or potential competitors (Dierkx & Cool, 1989).

Distinctive competencies (Selznik, 1957; lado, *et al,* 1992) refer to the unique skills and activities that a firm can do better than its competitors. When competition intensifies, the possession of these competencies should become increasingly important for the firm's continued success. These are the distinctive capabilities that support a market position that is valuable and difficult to imitate.

Institutions of higher education are also in competition and (Clarke, 1997) argues that if they are to compete more aggressively, they need to determine the areas of comparative competence on which to base successful resource-led strategies. In Kenya (Materu, 2007) Higher Education Institutions (HEIs) become more competitive as a result of increasing private sector participation, growing demand for accountability, limited public funding and the advent of borderless HEIs. Added to this is the growing trend in international ranking of universities.

Hypotheses

H_{01} There is no difference in resource rarity between private and public universities

H_{02} Resource rarity has no effect on sustainable competitiveness of universities

THEORETICAL BACKGROUND

The resource-Based View Model

The resource-based view (RBV), as one of the most widely accepted theories of competitive advantage, focuses on relationships between company's internal resource characteristics and competitive advantage (Spanos and Lioukas, 2001). It is based on the assumption that companies within an industry are heterogeneous in terms of resources they control. Since resources may not be perfectly mobile, heterogeneity can be long lasting (Barney, 1991). According to Barney (1992, 1995) resources and capabilities include financial, physical, human and organizational assets that a company uses to develop, manufacture and deliver products and services to customers. Financial resources include debt, equity, retained earnings, etc. Physical resources include machines, manufacturing plants and buildings. Human resources relate to the skills, knowledge, ability to make judgments, risk-taking propensity and wisdom of individuals associated with the company. Organizational resources are history, connections, confidence, organizational structure, formal reporting structure, management control systems and compensation policies (Barney, 1992, 1995).

Resources are inputs into a firm's production process (Barney 1991) that are either knowledge-based or property-based (Miller and Shamsie 1996). Amit & Schoemaker (1993) divide the construct "resource" into resources and capabilities. In this respect, resources are tradable and non-specific to the firm, while capabilities are firm-specific and are used to engage the resources within the firm, such as implicit processes to transfer knowledge within the firm (Makadok, 2001; Hoopes *et al*, 2003).

Makadok (2001) emphasizes the distinction between capabilities and resources by defining capabilities as "a special type of resource, specifically an organizationally embedded non-transferable firm-specific resource whose purpose is to improve the productivity of the other resources possessed by the firm". "Resources are stocks of available factors that are owned or controlled by the organization, and capabilities are an organization's capacity to deploy resources"(Amit & Schoemaker, 1993). Essentially, it is the bundling of the resources that builds capabilities (Sirmon *et al*, 2007)

Property-based resources typically refer to tangible input resources, whereas knowledge-based resources are the ways in which firms combine and transform these tangible inputs (Galunic and Rodan 1998). Knowledge-based resources may be particularly important for providing sustainable competitive advantage, because they are inherently difficult to imitate, thus facilitating sustainable differentiation (McEvily and Chakravarthy 2002). They also play an essential role in the firm's ability to be entrepreneurial (Galunic and Eisenhardt 1994) and to improve performance (McGrath *et al*, 1996). From the standpoint of resource acquisition, the initial resources involve different dimensions including capital (Bygrave 1992), human resources (Cooper 1981; Dollinger 1995), and physical resources (Dollinger 1995).

While the resource based view within the field of Strategic Management was named by Birger Wernerfelt in his article A Resource-Based View of the Firm (1984), the origins of the resource-based view can be traced back to

earlier research. Retrospectively, elements can be found in works by Coase (1937), Selznick (1957), Penrose (1959), Stigler (1961), Chandler (1962) where emphasis is put on the importance of resources and its implications for firm performance (Rumelt, 1984; Conner, 1991; Mahoney and Pandian, 1992; Rugman and Verbeke, 2002). This paradigm shift from the narrow neoclassical focus to a broader rationale, and the coming closer of different academic fields (industrial organization economics and organizational economics being most prominent) was a particular important contribution (Conner, 1991; Mahoney and Pandian, 1992).

The Resource based view explains that a firm's sustainable competitive advantage is reached by virtue of unique resources being rare, valuable, inimitable, non-tradable, and non-substitutable, as well as firm-specific (Makadok 2001; Finney *et al,* 2004). These authors write about the fact that a firm may reach a sustainable competitive advantage through unique resources which it holds, and these resources cannot be easily bought, transferred, or copied, and simultaneously, they add value to a firm while being rare. It also highlights the fact that not all resources of a firm may contribute to a firm's sustainable competitive advantage. Varying performance between firms is a result of heterogeneity of assets (Helfat and Peteraf, 2003) and RBV is focused on the factors that cause these differences to prevail.

Although the RBV is considered one of the most influential theories of strategic management (Powell, 2001; Priem and Butler, 2001; Newbert, 2008), its acceptance seems to be based more on the basis of logic and intuition than on the empirical evidence (Newbert, 2008). In most studies that examine the connection between company's resources and performance, resource heterogeneity approach is employed. By that approach, specific resource or capability is claimed to be valuable, rare, imperfectly imitable or non-substitutable, and then the amount of that resource or capability that a company owns is correlated with competitive advantage or performance (Newbert, 2007, 2008). This type of research provides evidence that a specific resource can help company to achieve competitive advantage, but does not verify the influence of resource characteristics (value, rareness, inimitability and non-substitutability) on competitive advantage (Newbert, 2008).

Results of studies using the resource heterogeneity approach suggest that company's asset influences market performance, but not profitability (Spanos and Lioukas, 2001), company-specific resources (corporate management capabilities, employee value-added and technological competence) enhance accounting-based and market-based measures of performance (Acquaah and Chi, 2007) and that relationships between resource sustainability, capability dynamism and resource orientation (RO) are significant (Chmielewski and Paladino, 2007). Wu (2010) divided resources in two groups, VRIN and non- VRIN, and concluded that groups are positively correlated to competitive advantage in low and medium volatility environments, but in high volatility environments, only VRIN resources have influence on competitive advantage.

The Balanced Scorecard for Higher education

The fundamental mission of research universities and their academic units and programs is the advancement of excellence in the creation, sharing and application of knowledge, typically described in terms of teaching, scholarships/ research and public service/ outreach (Ruben, 1999).

Fulfilling this mission requires a distinguished faculty, high level research activities, innovative and engaging teaching-learning processes, supporting technology and quality facilities, capable students, competent faculty and staff and legislative and public support. Ruben (1999) indicates that although historically less well appreciated, universities also requires excellence in communication and a service oriented culture, appropriate visibility and prominence within the state and beyond; and a welcoming physical environment; a friendly, supportive and respectful social environment; expectations of success; responsive, integrated, accessible and effective systems and services; and a sense of community.

Most specifically, fulfillment of this mission requires successful engagement with a number of constituency groups, and for each desired and potentially measureable outcomes can be identified: prospective students who

are applying to a university/program as a preferred choice, informed about the qualities and benefits they can realize through attending; current students who are attending their university/program of choice with well defined expectation and high levels of satisfaction relative to all facets of their experience, feeling they are valued members of their university community with the potential and support to succeed. The research contract agencies and other organizations or individuals seeking new knowledge or the solutions to problems are another constituency whose desired outcome is to actively seek out the university and its scholars for assistance. Friends - who are proud to have a family member attending the university/program, supportive of the institution, recommending it to friends' and acquaintances; Alumni- who are actively supporting the university/program and its initiatives; Employers- seeking out university/program graduates as employees, promoting the university/program among their employees for continuing education; Colleagues at other institutions- viewing the university/unit as a source of intellectual and professional leadership and a desirable workplace; Governing boards- supportive of the institution and enthusiastic about the opportunity to contribute personally and professionally to its advancement; local community-viewing the institution as an asset to the community, actively supporting its development (Ruben, 199).

Another constituency includes the friends, interested individuals, donors, legislators and the general public- their desired outcome is valuing the university as an essential resource, supporting efforts to further advance excellence; faculty-pleased to serve on the faculty of a leading, well-supported institution/program, enjoying respect locally, nationally and internationally and lastly staff-regarding the institution/unit as a preferred workplace where innovation, continuing improvement and teamwork are valued, recommending the institution/unit to others (Ruben, 1991).

METHODS
Setting
This analysis targeted the staff of both private and public universities. It focused on the staff in the schools/faculties that are in both the universities. These included: Arts and Social Sciences; Law; Education and Commerce/Business Management. The total number of staff at the private university in the four faculties/schools is 170 while those from the public University are 250. The staffs targeted were administrators, and all the teaching staff of the four schools.

The four schools targeted were stratified into departments. The school of Arts and Social Sciences for example was made up eight departments at public University and also eight departments at private university; school of Law had 4 departments at the public University and 2 at the private university; school of Education had 4 departments at the public university and 2 at the private university and school of Business Management has the 5 departments at the public University and also 3 at private university.

This study used Kerjcie and Morgan (1970) method for determining the sample that is representative of the population using the following formula:

$S = X^2 NP (1- P) \div d^2 (N-1) + X^2 P(1-P)$
Where:
S = required sample size.
X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level
(3.841).
N = the population size.
P = the population proportion (assumed to be .50 since this would provide the maximum sample size).
d = the degree of accuracy expressed as a proportion (0.05).

A standardized table has been attached as an appendix. From the sample size table, the public university staff population of 250 in the four schools will be represented by a sample size of 148 and the private university population of 170 will be represented by sample size of 114.

Data Collection
The data collection instruments used in the analysis was questionnaires. The questionnaires were administered to the staff members of the four schools (Arts and Social Sciences; Law; Education and Commerce/Business Management in both universities. Questionnaires were preferred because of the large number of the sample size which means therefore that holding interviews would take very long. A questionnaire was appropriate for this study because it gives the researcher an opportunity to carry out an inquiry on specific issues on a large sample and thus make the study finding more dependable and reliable (Kothari, 2003). The instrument was also appropriate because the respondents are literate and therefore can respond to the questionnaire on their own. The questionnaires were self-administered; where the respondents were asked to complete the questionnaires themselves.

Measurement Scales
Two main variables were used in this study; resource characteristics as the independent variables and sustainable competitiveness as the dependent variables. Control variables included Cost of the institution, location and age.

Sustainable Competitiveness
Sustainable competitiveness was measured using five constructs. They include programs/courses, public service/ outreach, research, workplace satisfaction and finance (Ruben,1999). The researcher measured the strength of the respondents' agreement on 10 statements developed by the researcher.
Two items were used to measure each of the five constructs of sustainable competitiveness. *Programs or Courses* for example was measured using: "all the lecturers in the department have masters degrees and above" and "programs offered in the department are current in the market". *Research* was measured by "the department has a journal that is produced on quarterly basis" and "publications are recognized if they are published in selected stature of journals of publishers". The two items that measured O*utreach* were "Employers send their employees to the departments' programs for continuing education" and "the alumni of the department offer both financial and moral support to its initiatives". *Workplace Satisfaction* was measured by "the department experiences very low staff turnover" and "employees in the department are regularly trained in their area of specialization" and lastly *Finance* was measured with "the department receives donations (monetary, books etc)" and "departments prepares an operating budget annually"

Resource Characteristics
Resource characteristics were measured using four constructs: value, rarity, inimitability and non-substitutability (Talaja, 2012). *Value of resources* was measured using 13 items such as "the department has built a good image over the years"; "the programs offered at the department are very attractive". *Rarity of resources* was measured with 8 items e.g. "the departmental library has very unique books for the different programs"; "the department has some very unique programs it offers". *Inimitability of resources* was measured using 11 items e.g. "interpersonal and intrapersonal relationships in the department cannot be copied"; "the trust that exists within the employees and the management of the department cannot be emulated" and finally, *non-substitutability of resources* was measured using 2 items: "programs developed in the department cannot be replaced by other programs from other institutions" and "the lecturers' competencies cannot be replaced by others and the same output expected".

Data Analysis

A total of 290 questionnaires were distributed; 170 to the public University and 120 to the private. These numbers are more than the sample sizes of 148 and 114 for public and private universities respectively. This is because the some respondents misplaced their questionnaires, requiring the researcher to redistribute them again.   The overall response rate was 91.7% (156) for the public University and 97.5% (117) response rate for the Private University. A total of eight questionnaires were discarded from the public University because they were blank & incomplete, similarly, two were discarded from the private university for being incomplete. The total usable questionnaires were 262, that is 148 (87.1%) from the public University and 114 (95%) from the private university which is acceptable for this type of research (Drnevich and Kriauciunas, 2011; Protogeron *et al*, 2008).

A total of seven items were proposed to measure rarity of resource. Using PCA, all the seven items were extracted. The seven factors were segregated into two factors which accounted for 76.920% of the variance in rarity of resources. The Kaiser–Meyer–Olkin value was 0.730 and the Bartlett's test of sphericity value of 1347.391 was significant ($p<0.01$). This indicates that data for rarity of resource were adequate for PCA. The Cronbach's reliability coefficient of the scale was found to be 0.888 and was above the recommended value of 0.7 indicating internal consistency of the scale.

In line with Barney's (1991) VRIN framework, a resource was considered to be rare in the sense that it was scarce relative to demand for its use or what it was likely to produce. In this regard, seven indicators were originally proposed to measure rarity of resources. PCA extracted all the seven indicators which were segregated into two factors. Respondents were asked to tick against the given statement to indicate their opinion about rarity of resources found within their departments.

Results of the comparison of mean response scores on the rarity indicators revealed that the average mean response scores for respondents drawn from public universities were higher than mean response scores for the private university respondents. More precisely, the mean response scores for the public university sample was (M=3.653, SD=0.983) while the mean response scores for the private university sample was (M=3.155, SD=1.042).

The t-test results on the significance of the observed differences in rarity of resources between the two institutions further revealed that resource rarity was significantly different{t (260) =3.954, $p<0.05$}. These results indicate that public universities tend to have an edge in terms of rarity of resources in comparison with private universities. This is more so considering that most of the public universities have been in existence longer that private universities. Consequently, public universities have been able to stock their libraries with a variety of books tailored for their unique programs. Besides, most public universities were built on expansive space which has provided a conducive environment for learning. In addition, departments in public universities have existed for a longer time and have gained valuable experience in designing unique programs tailored for the market. Public university staffs also use their extracurricular talents to help students and also they have patented their innovations.

Results of the regression analysis of sustainable competitiveness on resource rarity indicated that resource rarity (β=0.434, $p<0.01$) is a positive and significant predictor of sustainable competitiveness. The t-values of resource rarity was (t= 8.727) which shows that resource rarity was a very strong predictor of sustainable competitiveness.

CONCLUSION

This study sought to establish the effect of resource rarity on sustainable competitiveness. The first hypothesis stated that there is no difference in resource rarity in private and public universities. The finding indicated that the public university was more superior in resource rarity than private university. The second hypothesis stated

that resource rarity has no effect on sustainable competitiveness. Findings revealed that resource value is a very strong predictor of sustainable competitiveness.

Theoretical Contribution

This study was informed by two theories; the Resource-based view (also known as the VRIN) framework and the Balanced Scorecard. The resource-based view (RBV), is one of the most widely accepted theories of sustainable competitiveness. it focuses on relationships between company's internal characteristics and competitive advantage (Spanos and Lioukas, 2001).

It is based on the assumption that companies within an industry are heterogeneous in terms of resources they control. Since resources may not be perfectly mobile, heterogeneity can be long lasting (Barney, 1991). According to Barney (1992, 1995) resources and capabilities include financial, physical, human and organizational assets that a company uses to develop, manufacture and deliver products and services to customers. This study tested resource rarity, at the conceptual level and provided evidence that resource rarity is a significant predictor of sustainable competitiveness. By empirically confirming this hypothesis from the VRIN framework,   this   study   significantly   contributes   to   Resource-based   view.

Managerial Contribution

The implication for the management profession includes emphasizing the importance of accumulating different types of resources that is, physical, human, organizational, intellectual and financial. Management needs to give attention to resource rarity in order to enhance their ability to gain sustainable competitiveness. This means that they should accumulate and develop resources with characteristics that are scarce and not easily acquired as compared to those of their competitors and that help them in exploiting opportunities and neutralizing threats that arise from the organizational environment.

Limitations for further Study

Although this study has made theoretical and managerial contributions, it also had its limitations. The data is entirely based on assessment of university staff on their university, i.e. their opinion on investigated variables, which can often be biased. The sample is made of one public university and one private university, which can limit the generalization of findings. Also, replicating this study in another context or another country could lead to broader generalization of results.

Another limitation of this study encountered was in the data collection. The staff of both the universities took too long to respond to the questionnaire while others submitted the questionnaires unanswered or answered halfway. This made the research period longer and to some extent derailed the entire research process.

This study also failed to collected data on the universities over previous years which means that study was cross sectional in nature. It only collected data on private and public universities at a single point in time. A longitudinal research therefore would be more appropriate so as to follow the trend of the universities over a longer period say 5 or 10 years.

Recommendation for Further Research

This study makes a contribution to the knowledge and literature on the effects of resource characteristics on sustainable competitiveness in the service sector. This study compared one private and one public university in Kenya. The findings of this study indicate that resource rarity is a significant predictors of sustainable competitiveness. Therefore, for a further research on this theme, the researcher suggests a comparative research covering multiple organizations from other service sectors such as hotels, hospitals banks including universities.

This study collected data only form the staff of the university, it is therefore recommended that further research should be undertaken where data is collected from both the staff, students and alumni of the universities on the effect of resource characteristics on sustainable competitiveness. This will help to reduce the biasness as there is likelihood that staff of a university will want to talk good about their institution.

This study also found out contrasting findings from other authors who used purely qualitative research methods. This study was purely quantitative. It is therefore recommended that a mixed method approach (qualitative and quantitative) be used in future researches on the effects of resource characteristics on sustainable competitiveness. This will help to get a clear picture of this effect.

REFERENCES

Acquaah, M.; Chi, T. (2007), A longitudinal analysis of the impact of firm resources and industry characteristics on firm-specific profitability, *Journal of Management and Governance*

Amit R., Schoemaker P., (1993), 'Strategic assets and organizational rent', Strategic *Management Journal*

Barney, J. B. 1991. Firm resources and sustained competitive advantage. *Journal of Management*

Barney, J. B. (1992), Integrating Organizational Behaviour and strategy Formulation Research: A Resource Based Analysis, *Advances in Strategic Management*

Barney, J. B. (1995), Looking inside for competitive advantage, *Academy of Management Executive*.

Bygrave,W. (1992) *Venture Capital Returns in the 1980s: The state of the Art of Entrepreneurship.* Boston.

Chandler, G. N., & Hanks, S. H. (1994) Market Attractiveness, Resource-based Capabilities, and Venture Performance. *Journal of Business Venturing*

Chmielewski, D. A.; Paladino, A. (2007) Driving a Resource Orientation: Reviewing the Role of Resource and Capability Characteristics, *Management Decision*

Clarke, G (1997) "Reassessing resource allocation strategies in higher education: methods of analysis", *International Journal of Education Management*

Conner, K. R. (1991) 'A Historical Comparison of Resource- based Theory and Five Schools of Thought, Within Industrial Organizational Economics: Do We Have a New Theory of the Firm?' *Journal of Management*

Day, C. S. (1994) The capabilities of Market-driven organizations. *Journal of Retailing*.

Dierkx, I. & Cool, K. (1989). Asset Stock Accumulation and Sustainability of Competitive Advantage. *Management Science*

Dollinger, M. J. 1995. *Entrepreneurship: strategies and resource.* Boston, ma:Irwin

Drnevich, P. L.; Kriauciunas, A. P. (2011), Clarifying the conditions and Limits of the Contributions of Ordinary and Dynamic Capabilities to Relative Firm performance, *Strategic Management Journal*

Finney, R., campell, N. and powell, C. (2005): "Strategies and Resources: Pathways to Success?" *Journal of Business Research*

Galunic, D. C., and Eisenhardt, K. M. (1994) Renewing the Strategy Structure-performance Paradigm. *Research in Organizational Behavior*

Galunic, D. C. and Rodan, S. (1998). Resource Recombinations in the Firm: Knowledge Structures and the Potential for Schumpeterian Innovation. *Strategic Management Journal*

Hafstrand, H. (2006) Competitive advantage in the Magazine Publishing Business: A Resource-based Perspective, *Nordicom Review*

Heltaf, E., and Peteraf, M. A. (2003) The Dynamic Resource Based View: Capability Lifecycle. *Strategic Management Journal*

Hoopes, D.G.; Madsen, T.L.,; Walker, G. (2003) Guest Editors' Introduction to the Special Issue: Why is There a Resource-Based View? Toward a Theory of Competitive Heterogeneity *Strategic Management Journal*

Kothari, C. (2003) *Research Methods; Methods and Techniques* ; New Delhi: Eastern Ltd

Lado, A.A., Boyd, N. G. and Wright, P. (1992) A Competency-based Model of Sustainable Competitive *Advantage*: Towards a Conceptual Synthesis. *Journal of Management*

Long, K., & Vickers-Koch, M (1995) Using Core Competences to create competitive advantage. *Organizational Dynamics*

Mahoney, J. T. and Pandian, J. R. (1992) 'The Resource-based View within the Conversation of Strategic Management', *Strategic Management Journal*

Makadok, R., (2001), 'Toward a Synthesis of the Resource-based and Dynamic-capability Views of Rent Creation', *Strategic Management Journal*

Materu, P. (2007) Higher Education Quality Assurance in Sub-Saharan Africa: Status, Challenges, Opportunities and Promising procedures. *World Bank*

McEvily, S. K., and Chakravarthy, B. (2002) The Persistence of Knowledge- based Advantage: An Empirical Test for Product Performance and Technological Knowledge. *Strategic Management Journal*

McGee, J. E. & Finney, J. B. (1997) Competing against Retailing Giants: A look at the Importance of Distinctive Marketing Competencies. *Journal of Business and Entrepreneurship*

McGrath, R. G., Tsai, M., Venkataraman ,S. and MacMillan, I. C. (1996) Innovation, Competitive Advantage, and Rent. *Management Science*

Miller, D., and Shamsie, J. 1996. The resource-based view of the firm in two
    environments: The Hollywood film studios from 1936 to 1965. *Academy of Management Journal*

Newbert, S. L. (2007), Empirical Research on the Resource-based View of the Firm: an
    Assessment and Suggestions for Future Research, *Strategic Management Journal*

Newbert, S. L. (2008), Value, Rareness, Competitive Advantage, and performance: A
    Conceptual-level Empirical Investigation of the Resource-based View of the Firm, *Strategic
    Management Journal*

Pearce and Robinson (2007) *Strategic Management: Formulation, Implementation and
    Control;* Boston: McGraw Hill

Priem, R. L.; Butler, J. E. (2001), Is the Resource-based 'View' a Useful Perspective for
    Strategic Management Research?, *Academy of Management Review*

Protogeron, A.; Caloghirou, Y.; Lioukas, S. (2008), Dynamic Capabilities and Their
    Indirect Impact on Firm Performance, *Paper submitted to the DRUID 25th Celebration Conference
    2008*

Rugman A.M. and Verbeke, A. (2002), Edith Penrose's Contribution to the Resource-   Based   Views   of
    Strategic Management. *Strategic Management Journal*

Rumelt, R. P. (1984) *Towards a Strategic Theory of the Firm*. Prentice Hall, New Jersey

Selznik, P. (1957) *Leadership in administration*. New York, NY: Harper & Row

Sirmon, D.G., Hitt, M.A. and Ireland, R.D. (2007) Managing Firm Resources in Dynamic
    Environments to Create Value: Looking inside the Black Box. *Academy of Management Review*

Spanos, Y.E., Lioukas, S. (2001) An Examination into the Causal Logic of Rent
    Generation:Contrasting Porter's Competitive Strategy Framework and the Resource-based Perspective.
    Strategic Management Journal

Tabachnick, B. G., and Fidell L. S. (2007) using Multivariate Statistics. Northridge; New
    York

Talaja, A. (2012) Testing VRIN Framework: Resource Value and Rareness as a Source
    of Competitive Advantage and above Average Performance. *Management Journal*

Wernerfelt, B. (1984) A Resource-based View of the Firm. *Strategic Management
    Journal*

Wu, L. Y. (2010), Applicability of the Resource-based and Dynamic Capability Views
    under Environmental Volatility, *Journal of Business Research*