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MEASURING STRATEGIC ALLIANCE PERFORMANCE IN NIGERIAN MANUFACTURING INDUSTRY

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Abstract

It is often believe that, formation of strategic alliance enhances better performance among partners, but the major concern is how performance is measured. The study examined the choice of forming alliance and determines whether strategic alliance enhances performance of manufacturing industry. Seven indigenous manufacturing companies were selected using systematic random techniques, secondary data were used for the study, and the data were generated through the annual financial statements of the companies. Ratio analysis were used to measure the performance of the selected companies, the results of the analysis indicated that; Some of the selected Nigerian manufacturing companies have high return on investment of 60.49% in year 2008. However, one of the companies witnessed an impressive boost in year 2005 and 2006 with 2.11:1 and 5.45:1 exceeding the acceptable standard for measuring performance in the industry, which is 2.1. Based on the findings, the study concluded that; 71.43% of the selected companies have a good return of sales. In light of this, the study recommends that; the management of Poly Products Nig. Plc, should be more efficient in their operations, in order to earn higher percentage of gross profit margin return for the company.

Key Words: Strategic Alliance, Performance, Manufacturing Industry, Ratio Analysis, Return on Investment.

Introduction

The international business literature has already acknowledged a number of positive outcomes for companies actively engaged in strategic alliances, such as higher return on equity, better return on investment, and higher success rates, compared with integration through mergers and acquisitions, or companies in the Fortune 500 list that avoid building inter-corporate relationships (Booz-Allen & Hamilton, 1999). At the same time, it is an acknowledge fact that there is little understanding among business executives regarding the formation processes, the dynamics and evolution of inter-corporate relations, and what are the factors that determine the success rate in strategic alliances (O'Farrell & Wood, 1999). Much of the fundamentals in this field were established with the seminal edited volume by Contractor and Lorange (1988) on Cooperative Strategies in International Business, with contributions from Buckley and Casson on a 'theory of co-operation', Contractor and Lorange on 'the strategy and economic basis for cooperative ventures', Harrigan on 'partner asymmetries' - among other positional papers in the same volume.

The research in the field was marked also by contributions from Cunningham & Calligan (1991) on 'competitiveness through networks of relationships', Hamel (1991) on 'interpartner learning in strategic alliances', Auster (1994) on 'theoretical perspectives on interorganisational linkages', Gulati (1995) on the relationship between repeated transactions and trust', Doz (1996) on the 'learning processes in strategic alliances', Little, et.al. (1998) on 'management of collaborations in technology based product markets'. The issues of trust, partner selection, and knowledge transfer through co-operative business ventures, complementarities and synergies between partners have dominated the scientific discourse. Some of the leading research questions explored were: why alliances are set-up (Gugler, 1992, Lei, 1993); the international context of cross—border strategic alliance (Snodgrass, 1993, Levinson & Asahi (1995), or how to achieve success in international strategic alliances (Bleeke and Ernst (eds.) 1993), Mohr and Spekman, 1994).

In general the contributions to the field of inter-corporate strategic alliances focus either on an in-depth analysis of a selected narrow issue - such as the effect of knowledge ambiguity on technological knowledge transfer in strategic alliances (Simonin, 1999), and methodological issues of construct validity in measuring strategic alliance performance (Arino, 2003).

STATEMENT OF PROBLEM

Firms undertake strategic alliances to enhance their productive capacities, reduce uncertainties in their internal structures and external environments, acquire competitive advantages that enable them to increase profits, or to gain future business opportunities that will allow them to command higher market values for their outputs (Webster 1999). In order word to improve their performance, however, the major concern is; how is this performance measured? The study is out to examine how alliance can be measured in Nigerian manufacturing industry.

The broad objective of the study is to examine how strategic alliance performance is measured in Nigerian manufacturing industry, while the specific objectives are to: examine the choice of forming alliance; examine the role played by alliance for the development of manufacturing industry; determine whether alliance will enhance the performance of manufacturing industry.

LITERATURE REVIEW

Strategic alliance is a cooperative agreement between two or more autonomous firms pursuing common objectives or working towards solving common problems through a period of sustained interaction (Deering & Murphy, 2003). Strategic alliances are also referred to as long-term cooperative relationships (Hill & Jones, 1998) and 'cooperative linkages between companies to pursue common goals' (Hergert and Morris, 1988). Besides, Diegel (1998) Projects an alliance as an affiliation agreement where smaller carriers take on the image of a larger carrier. Organizations usually become involved in strategic alliances because of some mutual advantage for the organizations involved that would be difficult if each acted alone (Bartol, Martin, Tein and Matthew 2001, 2003; Hanson et al., 2005).

Joshi, Kaslak and Sherman (1998) also view these cooperative linkages pursuing a common goal as a revolutionary business vision of the 21st Century and they stated: where firms need to acquire new skills to succeed in the future … a major avenue for a firm to acquire new capabilities is through the formation of strategic alliances. Premised on this interface (Carlson, 1996), allude using the adage that two heads are better than one, tends to create added value in most cases especially in the technological consolidation arena and it is 'the dominant strategy for growth and market development in e-business' (Deering & Murphy, 2003). Furthermore alliance formation has grown at a rate of one and half times after 1985 (Hagedoorn and Schakernraad, 1993)

Alliances are distinguished from the traditional multinational corporation – host joint venture and the strong-weak relationships inherent in such ventures by the fact that they are partners among equals (Diegel, 1998). But this may not necessarily be so, according to Arino (2003). Carlson (1996) concluded that alliances are more operational and commonly understood as (Frankel and Whipple, 1999) pointed out that; strategic alliance can be a long-term relationship where participants cooperate and willingly modify their business practices to improve joint performance. The hottest sectors for alliances are 'airlines, telecommunications, computer hardware and software, biotechnology, and medical services' (Harbison and Jr Pekar, 1998), educational services too (Ryan and Morris, 2005), and between innovative small companies and large companies especially in marketing (Deering and Murphy, 2003).

The purpose of many alliances, is to: fuse their combined resources; complement each company's expertise; market seeking; acquiring means of distribution; gaining access to new technology; converging technology, learning and internalization of tacit, collective and embedded skills; obtaining economies of scale; developing products, technologies and resources; achieving competitive advantages, cooperation of potential rivals, or pre-empting competitors; overcoming legal/regulatory barriers, legitimization, and bandwagon effect following industry trends.

Today, organizations at all levels of the supply chain (vertical and horizontal) are embarking on partnership alliances and forming a vital part of today's business environment (Booze Allen & Hamilton, 1999). Lendrum (1995) tends to differentiate strategic partnering from strategic alliances. According to Lendrum (1995) strategic partnering is about fundamentally altering the way we manage our relationships with customers and suppliers.

He goes on to explain that partnership alliances is about picking long-term winners, whereas strategic alliances are relationships between two or more suppliers servicing the same customer/customer base or different customer. Strategic alliances are sometimes referred to as inter-firm cooperative relationships and take a variety of different forms: advertising 'tie-ins', data links between customer and supplier, sole source suppliers and true joint ventures (Birnbirg, 1998).

Firms undertake strategic alliances for many reasons: to enhance their productive capacities, to reduce uncertainties in their internal structures and external environments, to acquire competitive advantages that enables them to increase profits, or to gain future business opportunities that will allow them to command higher market values for their outputs

(Webster 1999). Partners choose a specific alliance form not only to achieve greater control, but also for more operational flexibility and realization of market potential. Their expectation is that flexibility will result from reaching out for new skills, knowledge, and markets through shared investment risks. The strategic motives for organizations to engage in alliance formation vary according to firm-specific characteristics and the multiple environmental factors. As summarized below, this diversity has triggered the development of several classification schemes in the theoretical literature. Bleeke and Ernst (1993) summarize the generic needs of firms seeking alliance as cash, scale, skills, access, or their combinations. Such motivational diversity characterizes alliance formation in many industries, and theorists have proposed several explanatory schemes to classify and analyze the range of collaborative solutions adopted by firms.

The level of cooperation between businesses seems much less influenced by internalized costs and benefits than by: the history of the partnering firms' relationships; the current market positions of each firm; their joint resource capabilities; and informational asymmetries relative to firms engaging in arm's-length market transactions (Dietrich 1994). In other words, forming business networks and contractual or relational alliances is driven less by firms' retrospective economic rationalities than by their strategic intentions. Two or more autonomous organizations decide to form an alliance for an emerging joint purpose. Therefore, their decision to collaborate cannot be determined in a rational way by the purpose itself, nor by the current environmental pressures that compel them to cooperate. On the contrary, these factors merely help firms to construct post-facto justifications and rationalizations about their collaboration decision. A decision to cooperate is not a responsive action, but is fundamentally a strategic intent, which aims at improving the future circumstances for each individual firm and their partnership as a whole.

Apart from the immediate outcomes of formal collaborative activities, strategic alliances may also affect the partnering organizations' performances and survival chances. Some analysts seek to link alliance characteristics to various firm economic indicators such as stock prices, profits, productivity, market shares. A more difficult task is to demonstrate that alliances produce substantial non-financial, or transformational, outcomes such as enhanced organizational credibility (Human and Provan, 1997). For example, do firms involved in certain types of collaborations gain in perceived legitimacy, trustworthiness, and reputation for quality within their organizational fields? A considerable empirical problem is how to

detect the consequences of relatively small alliances for their much large parent organizations.

One outcome hypothesis attracting recent research attention is that strategic alliances contribute to superior production performance by the parents. Research on 142 Canadian biotechnology start up firms from 1991-1996 found that their initial performances were enhanced by establishing alliance networks that provided access to "diverse information and capabilities with minimum costs of redundancy, conflict, and complexity," gave more opportunities to learn from established rivals, but avoided risky intra-alliance rivalries

(Baum, Calabrese and Silverman, 2000). In particular, the start-up's alliance networks boosted their innovativeness as measured by rates of patenting and R&D growth. A comparative study of alliance networks among 138 steel and 130 semiconductor firms from 1990-1994 found that the influence of network characteristics on firm performance varied with industry contexts (Baum, Calabrese and Silverman, 2000).

In another analysis of semiconductor firms from 1985-1991, Stuart (2000) investigated the impact of alliances on innovation rates and economic growth. He measured innovation as the number of patents granted and growth as annual semiconductor sales. The crucial factors were not the size of each firm's alliance portfolio (number of alliances formed during the previous five years), but the resource profiles of its partners. Specifically, both innovation and sales rates increased substantially if a firm was connected to more technologically innovative and revenue rich alliance partners. These effects were especially potent for younger and smaller firms. An important implication of Stuart's analysis is that firms derive advantage from their partners' corporate social capital, even if their strategic alliance fails to achieve its professed formal objectives. Again we see that defining alliance success and failure is fraught with ambiguities.

Theoretical Foundations of Alliance

Resource Dependency Theory

The Resource Dependency Theory (RDT) is rooted in open systems framework in which organizations must interact with their environment if they want to acquire resources. According to this theory, necessary resource are outside the organization and no organization is found independent of outside resources; this is the underlying logic of "external interaction necessity" for an effective corporate. The degree of need fulfilment seems to be dependent on

factors such as the degree of interorganizational dependency and the nature of external entities such as suppliers, competitors, stakeholders, and state.

RDT explains organizational needs to acquire resource from external environment. In short, one of the core messages of this theory is that organizations endeavor to avoid interorganizational resources, which interrupt their decision making authority or their overall independence. RDT claims that organizations have to try to maintain and control the following types of resources if they want to effectively manage alliance.

1) Resource which decrease organizational dependency to other organizations;

2) Resources which increase other organizations dependency on them.

It seems that engaging in creating and maintaining effective alliance is a path to maintain and actualize the points.

Strategic Choice Theory

Strategic Choice Theory (SCT) assumes that there are diverse and strategic factors such as efficiency Underlying alliance. There are some basic reasons for explaining why organizations engage in strategic choice process. These reasons may include enthusiasm to be present in the market on time, ability to provide attractive goods and services, reducing costs, escalating market influence and obstructing competitors. These goals justify organizations involvement in alliance; because they are not able to actualize such goals in isolation or must accept gigantic costs otherwise. (Harrigan, 1988; Koh & Venkatraman, 1991; Powell, 1990). Barringer and Harrison have categorized alliance. According to SCT frame of reference into four categories:

1) Relations that obstruct competitor’s entrance into the market or increase monopolistic influence.

2) Relations that increase political power or the influence on national and international governing organs.

3) Relations that increase organizational efficiency through research, production, marketing and other types of alliance.

4) Relations that differentiate goods and services (Barringer & Harrison, 2000)

METHODOLOGY

The study adopted the descriptive survey; secondary data were used for the study. Seven indigenous manufacturing companies were selected for the study; the companies were selected using systematic random techniques. The companies are; Nigerian Wire Industries Plc, Ikeja Lagos, Nigerian Ropes Plc, Surulere Lagos, Nampak Nigeria Plc, Ikeja Lagos, First Aluminium Nigerian Plc, Ikeja Lagos. Nigerian Wire and Cable Plc, Dugbe, Ibadan Oyo State, Poly Products Nigeria Plc, Ilupeju, Lagos and National Salt Company of Nigeria Plc, Otta, Ogun State.

Eight years financial reports of the companies were adopted, ranging from 2002 to 2009, so as to measure strategic alliance performance in Nigerian manufacturing industry. Since financial report is the only document that shows the performance of the manufacturing companies, the study deemed it fit to use it, as the main source of information to analyse the manufacturing company's performance. To analyse the financial statement, ratio analysis were employed. Financial ratio is being used to make rational decisions towards achieving the objective of the companies. The ratio analysis is calculated under the following heading:

i. Activity or turnover Ratios

ii. Profitability Ratios

iii. Liquidity Ratios

The results are presented and discussed below:

Table 1a: Net Assets Turnover Ratios

	Nig Ropes Plc	Times	Nampak Nig Plc	Times	Nat Salt Coy Nig Plc	Times	Poly Prod Nig Plc	Times
Year								
2002	**6.912**	**6.91**	**3.298**	**3.30**	**0.178**	**0.18**	**4.567**	**4.57**
2003	**1.804**	**1.80**	**3.666**	**3.67**	**0.328**	**0.33**	**4.653**	**4.65**
2004	**1.415**	**1.41**	**2.303**	**2.30**	**0.172**	**0.17**	**46.177**	**46.18**
2005	**1.585**	**1.58**	**2.322**	**2.32**	**0.256**	**0.26**	**4.770**	**4.77**
2006	**1.574**	**1.57**	**2.887**	**2.89**	**0.341**	**0.34**	**6.260**	**6.26**
2007	**1.191**	**1.19**	**3.796**	**3.80**	**1.821**	**1.82**	**6.849**	**6.85**
2008	**1.497**	**1.50**	**5.551**	**5.55**	**2.049**	**2.05**	**6.513**	**6.51**
2009	**2.831**	**2.83**	**7.998**	**8.00**	**1.893**	**1.89**	**6.787**	**6.79**

Source: Authors computation from annual report of sampled companies.

Table 1b: Net Assets Turnover Ratios

Nig Wire Ind Plc	Times	First Alu Nig Plc	Times	Nig Wire Cable Plc	Times
1.339	13.39	0.006	0.01	1.416	1.42
0.519	0.52	3.299	3.30	0.343	0.34
0.773	0.77	3.704	3.70	0.124	0.12
1.126	1.13	4.692	4.69	1.126	1.13
1.104	1.10	4.456	4.46	1.104	1.10
1.329	1.33	3.505	3.51	1.329	1.33
2.545	2.54	3.205	3.20	2.545	2.54
2.725	2.73	3.590	3.59	2.725	2.73

Source: Authors computation from annual report of sampled companies.

In table 1, Nigeria Ropes Plc, produces a volume of 6.91 times sales for the given amount of net assets in year 2002. However, for 2003, 2004, 2005, 2006, 2007 and 2008, the volume of sales produce has decline significantly, and started picking at a slow rate from year 2009 with 2.83 times return on sales.

Nampack Nigeria Plc, produces a volume of 3.30 times and 3.67 times sales for the given amount of net assets in year 2002 and 2003 respectively, however from 2004, 2005 and 2006 the volume of sales return drop slightly and pick up again in 2007, with 2009 having the highest return of sales with 8.00 times. These imply that the management of Nampak Nigeria Plc are taking good advantage of strategic alliance.

National Salt Company Nigeria Plc, did not perform well in the first 5 years i.e. 2002, 2003, 2004, and 2005 with 0.18, 0.17, 0.26 and 0.34times respectively. However, there has been little improvement from year 2007 to 2009, with 2008 having the highest return of sales of 2.05 times. This imply that the management of National Salt are under-utilizing the net assets available to them as reflected in the sales return.

Poly Products Nigeria Plc, produces a volume of 46.18 times return on sales given the net assets in year 2004 which is the peak period for the company, follow by 6.85 times and 6.79 times in 2007 and 2009 respectively. This implies that the management of poly products are utilizing the net assets of the company efficiently.

Nigeria wire industries Plc, produces a volume of 13.3 times return on sales, given the net assets in year 2002 and drop from 2003 to 2007. However the return on sales for 2008 and 2009 shows an improvement of 2.54 times and 2.73 times respectively. These imply that, management of Nigeria wire should put in more effort in other to maximize the opportunity of strategic alliance.

First Aluminium Nigeria Plc, produces a volume of 4.69 times and 4.46 times for year 2005 and 2006 respectively which is the peak period for the company. However, year 2002 recorded the lowest return on sales with 0.01 times. These imply that, first aluminium Nigeria plc should put in more efforts in other to enhance their performance.

Nigeria wire and cable Plc, produces a volume of 2.54 times and 2.73 times for year 2008 and 2009 as the return on sales for the company. However, year 2003 and 2004 was the worst years for the company as seen in the table. These imply that Nigerian wire and cable plc should be more committed to strategic alliance in other to reap the desired benefits.

Table 2a: Fixed Assets Turnover Ratios

	Nig Ropes Plc	Times	Nampak Nig Plc	Times	Nat Salt Coy Nig Plc	Times	Poly Prod Nig Plc	Times
Year								
2002	**3.621**	**3.62**	**3.818**	**3.82**	**0.092**	**0.09**	**2.631**	**2.63**
2003	**2.671**	**2.67**	**6.696**	**6.70**	**0.148**	**0.15**	**2.781**	**2.78**
2004	**2.138**	**2.14**	**5.376**	**5.38**	**0.055**	**0.06**	**2.986**	**2.99**
2005	**2.815**	**2.81**	**3.753**	**3.75**	**0.095**	**0.10**	**3.229**	**3.23**
2006	**2.982**	**2.98**	**4.449**	**4.45**	**0.225**	**0.23**	**3.465**	**3.46**
2007	**3.064**	**3.06**	**3.749**	**3.75**	**4.414**	**4.41**	**4.538**	**4.54**
2008	**3.005**	**3.00**	**3.852**	**3.85**	**4.071**	**4.07**	**5.424**	**5.42**
2009	**3.199**	**3.20**	**5.635**	**5.63**	**3.015**	**3.02**	**4.025**	**4.02**

Source: Authors computation from annual report of sampled companies.

Table 2b: Fixed Assets Turnover Ratios

	Nig Wire Ind Plc	Times	First Alu Nig Plc	Times	Nig Wire Cable Plc	Times
Year						
2002	**6.088**	**6.09**	**2.675**	**2.68**	**15.481**	**15.48**
2003	**0.455**	**0.45**	**3.315**	**3.32**	**0.169**	**0.17**
2004	**0.535**	**0.53**	**3.503**	**3.50**	**0.058**	**0.06**
2005	**0.778**	**0.78**	**4.316**	**4.32**	**0.778**	**0.78**
2006	**0.729**	**0.73**	**3.650**	**3.65**	**0.729**	**0.73**
2007	**0.811**	**0.81**	**3.793**	**3.79**	**0.811**	**0.81**
2008	**1.412**	**1.41**	**3.701**	**3.70**	**1.412**	**1.41**
2009	**1.422**	**1.42**	**3.590**	**3.59**	**1.422**	**1.42**

Source: Authors computation from annual report of sampled companies.

Table 2, shows that, Nigerian Ropes Plc, have 3.62 times sales revenue in relation to the fixed assets it has at it command in 2002, 2.81 times in 2005 and 3.20 times in 2009 respectively. This implies that, the management of Nigerian Ropes are not making efficient use of the fixed assets at its disposal as reflected in the sales revenue. Because, the higher the ratio, the better for the company.

Nampark Nigerian Plc, has 6.70times sales revenue return in 2003, and 5.38times in 2004 respectively given the fixed assets that has been employed to generate revenue for the company. These years serve as the peak for the company under the period review; however, this was follow by year 2006 and 2009 with 4.45 times and 5.63time respectively. This implies that, Nampark Nig. Plc is using the opportunity of strategic alliance to improve her performance.

National Salt Company Nig Plc, has a poor sales revenue return in the first five years, under the period examined, ranging from 2002 to 2006, and started picking up from 2007 with 4.41 times sales return on the fixed assets employed to generate revenue for the company, and slightly drop to 3.02 times in 2009. From the above analysis one may not be wrong to say that, National Salt is grossly under-utilizing the fixed assets employed to the company.

Poly Products Nigerian Plc, have a fair sales revenue return across board, ranging from 2.63times in year 2002 as the lowest sales revenue return and 5.42 times in year 2008 as the highest sales revenue return, in relation to the fixed assets employed to the company to generate sales. This implies that, the management of Poly Product is making good use of the fixed assets of the company. In order words the management is performing.

Nigerian Wire Industry Plc, have 6.09 times sales revenue return on fixed assets employed to generate revenue in 2002, which is the highest for the company under the period review, however, from 2003 to 2007 the company sales revenue return was very poor, and started picking up in year 2008 and 2009 as reflected in the table. The implication of this is that, management of Nigerian Wire Industry Plc have grossly under-utilize the fixed assets at it command.

First Aluminium Nig. Plc, have 4.32 times sales revenue return on fixed assets employed to generate revenue in year 2005, which is the highest for First Aluminium, the lowest sales revenue return was in year 2002 with 2.68times which is a fair return. However, they have been improvement in the subsequent years. This implies that, the management the company are making good use of the fixed assets of the company, as reflected in the times of sales revenue return.

Nigerian Wire and Cable Plc, have 15.48 time's sales revenue return in year 2002, which was an efficient and a good performance from the management of the company. However, from 2003 to 2007 the performance was very poor as reflected in the sales revenue return, and started picking up from 2008. This imply that, management of Nigerian wire and cable need to put the fixed assets of the company into use, in order to generate good returns for the company, as this will help the company to expand and satisfy their shareholders.

Table 3a: Net Profit Margin

	Nat Salt Coy of Nig Plc	Percentage	Nig Wire and Cable Plc	Percentage	Nampak Nig Plc	Percentage	Poly Prod Nig Plc	Percentage
Year								
2002	0.801	80.1	0.045	4.54	0.058	5.78	0.021	2.10
2003	0.889	88.9	0.826	82.59	0.030	2.98	0.020	2.03
2004	0.382	38.2	0.351	35.1	0.048	4.80	0.000	0.02
2005	0.543	54.3	0.035	3.49	0.025	2.54	0.004	0.45
2006	0.90	90.0	0.077	7.70	0.048	4.79	0.000	0.05
2007	0.201	20.1	0.045	4.53	0.051	5.12	0.008	0.81
2008	0.165	16.5	0.005	0.52	0.078	7.76	0.008	0.78
2009	0.210	21.0	0.003	0.28	0.010	1.03	0.028	2.78

Source: Authors computation from annual report of sampled companies.

Table 3b: Net Profit Margin

	Nig Ropes Plc	Percentage	Nig Wire Ind Plc	Percentage	First Alu Nig Plc	Percentage
Year						
2002	0.038	3.88	0.004	0.40	0.053	5.31
2003	0.063	6.35	0.223	22.29	0.039	3.95
2004	0.040	4.07	0.208	20.81	0.014	1.44
2005	0.034	3.40	0.035	3.49	0.020	1.96
2006	0.050	5.04	0.077	7.70	0.001	0.06
2007	0.059	5.99	0.045	4.53	0.056	5.64
2008	0.067	6.71	0.005	0.52	0.037	3.70
2009	0.301	30.1	0.003	0.28	0.039	3.92

Source: Authors computation from annual report of sampled companies.

Table 3, shows that, National Salt Company of Nigerian Plc, have a very high net profit margin of 88.9% in year 2003 follow by 80.1% in year 2002,this implies that, the management of National salt has demonstrate their ability to turn each naira sales into net profit. However, for year 2007 and 2009, the company recorded a percentage of 20.1% to 21.0%. This imply that, management of the company may need to cut down un-necessary expenses in other to generate good net profit that will pay dividend to shareholders and attract new investors.

Nigerian Wire and Cable Plc, recorded a very high net profits in 2003 with 82.59%, this is an indication that, the management of Nigerian wire and cable were efficient in manufacturing, administering and selling of the products. However, the performance drops drastically from year 2008 and 2009 with 0.52% and 0.28% respectively. This means that, for the two years the company may not be able to pay good dividends to shareholders, and settle their bills.

Nampak Nigerian Plc, recorded a net profit return of 5.78% in 2002, 5.12% in 2007 and 7.76% in 2008 respectively, this shows a fair return for the company. However, if they continue with a low net profit in this manner, it means, they will be in a disadvantageous position in the face of falling selling prices and they may not be able to compete favourably.

Poly Products Nigerian Plc, recorded a net profit return of 2.07% in 2002, 2.03% in 2003 and 2.78% in 2009 respectively. However, for the remaining five years under the period reviewed, the net profit return was less than 1.00%, which indicates that, the company does not have the capacity to withstand adverse economic conditions under the period reviewed. This imply that, management of Poly Products should review their business strategy and if possible cut down expenses, in other to have a good net profit return for the company, because the higher the net profit return the better for the company.

Nigerian Ropes Plc, have a relatively low net profit return under the period review, with 6.71% in year 2008 been the peak, this is an indication that, the management has a weak ability of turning each naira sales to net profit. Nigerian Wire Industries Plc, recorded a net profits return of 22.29% in year 2003 and 20.81% in year 2004 respectively, this years are the highest period of return for the company, as reflected in table 3. This implies that, they were a decline demand for the company's products.

First Aluminium Nigerian Plc, recorded a net profit return of 5.31% in year 2002 and 5.64% in year 2007 respectively, as the highest return under the period reviewed, however, year 2006 recorded a poor return of 0.06%, but subsequently pick up in the following year, this means that, the company will be able to meet up with they are obligations.

Table 4a: Gross Profit Margin

Year	Nig Wire & Cable Plc	Percentage	Nampak Nig Plc	Percentage	Nat Salt Coy Nig Plc	Percentage
2002	0.075	7.49	0.062	6.21	0.582	58.2
2003	0.826	82.59	0.029	2.89	0.872	87.2
2004	0.531	53.1	0.085	8.49	0.671	67.1
2005	0.028	2.81	0.041	4.09	0.653	65.3
2006	0.082	8.17	0.072	7.21	0.71	71.0
2007	0.081	8.13	0.048	4.79	0.49	49.0
2008	0.013	1.27	0.080	8.02	0.241	24.1
2009	0.012	1.17	0.021	2.12	0.309	30.9

Source: Authors computation from annual report of sampled companies.

Table 4b: Gross Profit Margin

Year	Poly Prod Nig Plc	Percentage	Nig Ropes Plc	Percentage	First Alu Nig Plc	Percentage	Nig Wire Ind Plc	Percentage
2002	0.020	2.05	0.055	5.53	0.067	6.69	0.013	1.32
2003	0.027	2.70	0.072	7.20	0.048	4.83	0.221	22.12
2004	0.028	2.83	0.062	6.19	0.020	2.03	0.199	19.89
2005	0.002	0.16	0.059	5.94	0.024	2.42	0.028	2.81
2006	0.008	0.82	0.082	8.23	0.004	0.36	0.082	8.17
2007	0.016	1.63	0.075	7.53	0.067	6.68	0.081	8.13
2008	0.016	1.57	0.094	9.36	0.059	5.86	0.013	1.27
2009	0.037	3.71	0.303	30.34	0.062	6.18	0.012	1.17

Source: Authors computation from annual report of sampled companies.

In table 4, the analysis shows that, Nigeria Wire and cable Plc, recorded a high return in year 2003 with 82.59% which is an indicator of efficiency in the production operation and a good relationship between selling price and production costs. However, year 2009 have the least return of 1.17%, this imply that, management of the company need to overhaul the production unit in order to have a maximum return. Because the higher the rate of return the better for the company.

Nampak Nigerian Plc, have 8.49% in year 2004 and 8.02% in year 2008, which is an indicator of an average performance by the management of the company. This implies that

management of Nampak should double their efforts, in order to have a more efficient return for the company, which is the only way their performance can be judged.

National Salt Company Nigerian Plc, have 67.1% return in year 2004 and 71.0% in year 2006. However, for 2003 the company recorded an impressive return of 87.2% which is the peak; follow by 30.9% in year 2009. This is a good performance on the side of the company, because the rule of the ratio is that, the higher the return, the better for the company.

Poly Products Nigerian plc, recorded the highest return in year 2009, with 3.71% and the lowest return in year 2005 and 2006 with 0.16% and 0.82% respectively, this is an indication that the management of the company are not performing as expected, as reflected in table 4.

Nigerian Ropes Plc, recorded the highest return in year 2009 with 30.34%, which shows a fair relationship between selling price and production costs for the year. However, year 2002 recorded the lowest return of 5.53%, this imply that, the company has just started enjoying the benefit of strategic alliance as reflected in the table.

First Aluminium Nigerian Plc, have a return of 6.69% in year 2002, and 6.68% as their highest return under the period reviewed, this means there is need to restructure the operations of the company in order to achieve an efficient return in the future.

Nigerian Wire Industries Plc, recorded a high return in year 2003 with 22.12% and year 2004 with 19.89%, however, the trend of the return has grossly gone downward from 2005 to 2009. This imply that, the management of the company are under-performing, which is a bad signal for the company.

Table 5a: Return on Investment

	Nat.Salt Coy Nig Plc	**Percentage**	**Nig.Wire &Cable Plc**	**Percentage**	**Nampak Nig.Plc**	**Percentage**	**Poly Prod Nig. Plc**	**Percentage**
Year								
2002	0.222	22.2	0.064	6.42	0.196	19.65	0.095	9.47
2003	0.42	42.0	0.283	28.31	0.126	12.58	0.094	9.44
2004	0.451	45.1	0.351	35.07	0.129	12.91	0.001	0.10
2005	0.471	47.1	0.039	3.93	0.072	7.18	0.026	2.63
2006	0.379	37.9	0.085	8.50	0.171	17.07	0.003	0.30
2007	0.367	36.7	0.060	6.02	0.238	23.81	0.055	5.54
2008	0.337	33.7	0.013	1.31	0.605	60.49	0.051	5.06
2009	0.398	39.8	0.008	0.77	0.100	10.02	0.189	18.88

Source: Authors computation from annual report of sampled companies.

Table 5b: Return on Investment

	Nig.Ropes Plc	Percentage	Nig.Wire Ind Plc	Percentage	First Alu Nig.Plc	Percentage
Year						
2002	0.269	26.9	0.054	5.39	0.301	30.1
2003	0.115	11.5	0.115	11.54	0.130	13.0
2004	0.058	5.8	0.161	16.08	0.053	5.3
2005	0.054	5.4	0.039	3.93	0.092	9.2
2006	0.079	7.9	0.085	8.50	0.003	0.3
2007	0.071	7.1	0.060	6.02	0.198	19.8
2008	0.101	10.1	0.013	1.31	0.118	11.8
2009	0.855	85.5	0.008	0.77	0.136	13.6

Source: Authors computation from annual report of sampled companies.

Table 5 reveals that, National Salt Company Nigeria Plc, have an excellent return on the capital employed under the period reviewed, starting from year 2002 with a return of 22.2% to year 2009 with 39.8% return on the capital employed. This implies that, the company is making a gain on each naira invested, with these; the company will be able to pay interest and taxes meant for the company.

Nigerian Wire and Cable Plc, have perform well from year 2002 to year 2008, except for year 2009, which the company was not able to recoup the money invested as reflected in the table. This imply that the company has been efficient in using the available assets i.e. capital employed to generate profit for the Nigerian wire and cable plc.

Nampak Nigerian Plc, have equally demonstrated a brilliant performance, by using the invested fund to make gain for the company. With year 2008 having the highest return on each naira invested up to 60.49% and the least been 7.18% in year 2005. This implies that, the company is reaping the benefit of strategic alliance by generating a high profit return for the company. Because the higher the percentage of return the better for the company.

Poly Products Nigerian Plc, recorded a good profit return for the company for six years as reflected in the table, except for year 2004, and year 2006 that, the company recorded a low return of 0.09% and 0.30% respectively. This is considered as a fair return on the capital employed under the period reviewed.

Nigerian Ropes Plc, have the highest return in year 2009 with 85.5% followed by year 2002 with 26.9%. This means that, the company is doing brilliantly well, given the assets at it

command, because when the company record higher percentage of return, it will be able to pay their interest and tax without any stress.

Nigerian Wire Industries Plc, have a good performance for seven years i.e. from year 2002 to 2008, with 2004 having the highest percentage of return on the capital employed, except for year 2009, where the company have less than 1.00% return i.e. 0.77% return. This means that, the company could not make a ₦1 naira return on the investment of the capital employed for the year. In all, one can be safe to say that, the management are making efficient use of the assets at their disposal.

First Aluminium Nigerian Plc, recorded a good return on the capital employed, under the period review, year 2002 toping the table with 30.1%, except for year 2006 where the company have a return of less than 1.00%. This implies that the management of First Aluminium Nig. Plc has turn invested capital of the company over in its good net operation profits.

Table 6a: Net Working Capital Ratios

	Nampak Nig Plc	Ratios	Nig Wire & Cable Plc	Ratios	Nig Wire Ind Plc	Ratios	Poly Prod Nig Plc	Ratios
Year								
2002	0.136	0.14:1	0.909	0.91:1	1.015	1.02:1	0.736	0.74:1
2003	0.453	0.45:1	1.030	1.03:1	0.086	0.09:1	0.673	0.67:1
2004	0.572	0.57:1	1.157	1.16:1	0.224	0.22:1	0.836	0.84:1
2005	0.381	0.38:1	0.237	0.24:1	0.237	0.24:1	0.661	0.66:1
2006	0.351	0.35:1	0.290	0.29:1	0.290	0.29:1	0.807	0.80:1
2007	0.012	0.01:1	0.459	0.46:1	0.459	0.46:1	0.509	0.50:1
2008	0.441	0.44:1	0.544	0.54:4	0.686	0.69:1	0.201	0.20:1
2009	0.419	0.42:1	0.775	0.78:1	0.775	0.78:1	0.686	0.69:1

Source: Authors computation from annual report of sampled companies.

Table 6b: Net Working Capital Ratios

	Nig Ropes Plc	Ratios	First Alu Nig Plc	Ratios	Nat Salt Coy Nig Plc	Ratios
Year						
2002	0.624	0.62:1	1.124	1.12:1	0.725	0.73:1
2003	0.522	0.52:1	0.050	0.05:1	0.950	0.95:1
2004	0.583	0.58:1	0.122	0.12:1	1.842	1.84:1
2005	0.703	0.70:1	0.155	0.16:1	2.111	2.11:1
2006	0.764	0.76:1	0.306	0.31:1	5.448	5.45:1
2007	0.982	0.98:1	0.027	0.03:1	0.690	0.69:1
2008	0.983	0.98:1	0.049	0.05:1	0.631	0.63:1
2009	1.063	1.06:1	0.067	0.07:1	0.528	0.53:1

Source: Authors computation from annual report of sampled companies.

Table 6 indicate that, Nampak Nigerian Plc, witnessed a boost in year 2003 and 2004 with 0.45:1 and 0.57:1 respectively, however, year 2007 witnessed a downward trend of 0.01:1, which is the lowest ratio compared with other results of net working capital under the period reviewed, with this Nampak Nigerian Plc has to improve on their net working capital in order to be able to cover their future bills adequately, so that more investors can be attracted and the company should strive to attain the 2:1 ratio which is the acceptable standard for performance.

Nigerian Wire and Cable Plc, will be able to pay her future bills with ratio 1.03:1 and 1:16:1 for year 2003 and year 2004 respectively. However, the results show a downward trend for the remaining years; with this the management of the company has to improve on their net working capital, in order to be able to cover their future bills adequately.

Nigerian Wire Industries Plc, recorded a boost in year 2002 with 1.02:1 and a downward trend in year 2003 with 0.09:1. However, the company recorded a slight boost again from year 2004 with 0.22:1 up to year 2009 with 0.78:1. This imply that, the company will be able to pay her bills in year 2002 without any problem, the management of the company is however, advice to strife to attain the 2:1 ratio which is the acceptable standard for measuring performance.

Poly Products Nigerian Plc, recorded a downward trend for the whole eight years, under the period reviewed, with year 2004 and year 2006 having the highest net working capital return of 0.84:1 and 0.80:1 respectively. This means that; for the company to be able to cover their bills they may need to borrow or take a loan, because the higher the return the better for the company.

Nigerian Ropes Plc, however, witnessed a downward trend from year 2002 to year 2008, but had a boost in year 2009 with 1.06:1 ratio. This means that, the company will be able to cover their bills in year 2009 more conveniently than the other years.

First Aluminium Nigerian Plc, witnessed a boost in year 2002 with 1.12:1, this means that, the company will be able to pay her future bills without any stress or borrowing from the bank. However, they are significant downward trend from year 2003 to 2009. This imply that, the management of the company need to work hard in order to pay their bills and meet up with the 2:1 acceptable standard for measuring performance.

National Salt Company Nigerian Plc, witnessed an impressive boost in year 2004, year 2005 and year 2006 with ratio 1.84:1, 2.11:1 and 5.45:1 exceeding the acceptable standard for measuring performance in the industry. This implies that, for the three years, management of the company perform brilliantly well, because with this result they will be able to pay their bills in the future and do other businesses. However, other years witnessed a poor return for the company.

Conclusion

Based on the available data and findings of this research, the following conclusions were derived:

a) The net asset turnover ratios for most of the selected companies were above average, except for National Salt Company of Nigerian plc, which record poor return consistently for five years under the period review.

b) Four out of the seven manufacturing companies under the period review have a fair return of the sales recorded for the company, except for National Salt Company of Nigerian plc, Nigerian wire industries plc and Nigerian wire and cable plc which recorded a poor return.

c) 71.43% of the selected companies under the period examined, recorded a good net profit margin return for their various companies. This shows that the management of these companies are performing.

d) The net working capital ratios is low for most of the companies, except for national salt Nig.plc which have a ratio of 2.11:1 and 5.45:1 respectively in 2005 and 2006 which is above the acceptable standard of 2:1.

e) The return on investment is very high for all the selected companies under the period review. This implies that, the management of the selected companies are performing and taking good advantage of the alliance.

f) The gross profit margin returns for all the selected companies are high. This further proves that, the companies are efficient in their operations. Because, the higher the ratio the better for the company.

g) About 57.14% of the selected companies under the period examined, shows that, the companies are making good use of their fixed assets, which have been employed to generate revenue for the company.

In view of the results presented and discuss above, it may not be out place to conclude that, strategic alliance has indeed play a vital role in the development of Nigerian manufacturing industry and has indeed enhance the development of the sector.

This also mean that, strategic choice theory agree with the study which states that, the basic reasons why organisations engage in strategic choice process is to be present in the market on time, ability to attract goods and services, reducing costs, escalating market influence, and obstructing competitors.

Recommendations

Based on the conclusions of findings in this research, the following recommendations are proposed:

a) The management of National Salt Company of Nigerian Plc, Nigerian Wire Industries Plc and Nigerian Wire and Cable Plc, should try and put their fixed assets to use in order to generate high revenue return for their companies.

b) The management of Poly Products Nigerian Plc should be more efficient in turning the company's current (cash) assets into net profit.

c) The management of National Salt Company of Nigerian Plc, should put in more efforts in order to achieve a high return of net working capital ratios for the company, in all their operations just like, the performance in 2005 and 2006, which exceeded the 2:1 acceptable standard ratio.

d) The management of Poly Products Nigerian Plc, should be more efficient in their operations, so that they can earn a higher percentage of gross profit margin return for the company.

e) Nampak Nigerian Plc, Nigerian Wire Industries, Poly Products Nigerian Plc, Nigerian Ropes Plc, Nigerian Wire and Cable Plc, and First Aluminium Nigerian Plc should equally work hard to attain the 2:1 acceptable standard ratio. Because the higher the ratio the better for the company.

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