Idiosyncratic Partner Investments and Performance of Cosmetics Manufacturing Firms In Nairobi County: The Moderating Role of Supply Chain Technology

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ABSTRACT: *In many industries, complexity and uncertainty have increased to the point that competing autonomously is no longer an option. The characteristics of products produced and processes involved in manufacturing contribute to the complexity of the relationship. Speed, quality, and flexibility are being emphasized as means of responding to the unique needs of customers and markets. Implementation of supply chain integral relationships has been advocated as the means of increasing competitiveness of firms. The study specifically addressed the effect of Idiosyncratic Partner Investment on the Performance of cosmetics manufacturing firms in Nairobi County, Kenya. Relational View theory was adopted in the study. The study adopted Positivism Research Philosophy. Cross-sectional survey research design was used in the study. The unit of analysis was 714 employees working in the procurement departments in cosmetics manufacturing firms in Nairobi County, Kenya. A sample of 256 was selected from the target population using a Multi Stage Sampling Technique. Primary data was collected using self-administered semi-structured questionnaires which were dropped and picked later. Both descriptive and inferential statistics were used to analyse the collected data. Moderated Multiple Regression (MMR) was used to analyse the relationship between the predictor variables and performance. Pilot study reliability results showed that all our Cronbach's alpha coefficients were above 0.7, implying that the research instruments were reliable. The findings of the study showed that there was a positive and statistically significant correlation between idiosyncratic partner investment and performance (r=.529, p<0.01). The study concludes that idiosyncratic partner investments positively affect the performance of cosmetics firms. The study recommends that cosmetics firms should engage idiosyncratic partner investments, and make major investments, in time and effort to learn about the business practices of their suppliers, specifically for relational exchange. The results of the study will contribute to greater understanding of the supply chain integral factors that leads to outstanding performance of firms.*

KEY WORDS: *Idiosyncratic Partner Investment, Performance, supply chain integral relationships, Cosmetics Manufacturing Firms, Supply Chain Technology.*

I.   BACKGROUND OF THE STUDY

There is a growing recognition that in agile supply chains, individual organizations no longer compete as stand-alone entities, but rather as whole supply chains. In agile supply chain, a confederation of partners is linked together as a network. Gradually, it is becoming an era of "network competition," where the orders will go to those organizations who can better structure, coordinate, and manage the relationships with their partners in a network committed to better, closer, and more agile relationships with their final customers (Andersen *et al.,* 2009). In today's challenging global markets, the route to sustainable advantage lies in being able to leverage the respective strengths and competencies of network partners in the supply chain to achieve greater responsiveness to market needs. Relationship management is vital, as supply chains are generally complex, with numerous activities usually spread over multiple functions or organizations. Sometimes, these activities can even be spread over lengthy time horizons (Burgess *et al.,* 2006); Mahapatra (2011). Therefore, it is necessary to overlay a coordination system with alliance partners. Buyers rely on strategic partners to achieve and sustain a competitive position (Wagner & Boutellier, 2002). The concept of collaborative relationships is simple: that buyers and suppliers working together as a team can drive down total cost, improve quality and speed products

to the market, far more effectively than the same people working as adversaries. Partnership can be considered as the preferred relationship strategy where there is a high level of beneficial mutual interdependence.

The core of a buyer-supplier relationship is the exchange of goods/services for money. However, the organizational resources that the supplier allocates to the development, production, and distribution of goods together with the knowledge exchanged and created in everyday interactions determine how much value the focal buyer gains from the relationship. Such resources include engineering work on shared projects, the latest technologies, know-how, ideas, expertise, and production capacity. The allocation of these resources to interfirm collaborations is a selective process in which opportunities to form collaborations are unequally distributed among firms (Mitsuhashi & Greve, 2009). Indeed, these supplier resources are an important determinant of firm-level competitive advantage (Das & Teng, 2000), as comparative advantages relative to competitors in supplier resource allocation allow the firm to more easily gain competitive advantages in its downstream market (Hunt & Davis, 2008). Because there are limits to the resources that suppliers can dedicate to specific buyers, the prioritization of one buyer comes at the expense of another. For instance, Lavie (2007) discussed how firms deliberately differentiate among alliance partners and allocate their resources and attention accordingly. Similarly, Gulati et al. (2000: 210) noted that firms "may only have the time and resources to form and satisfy the expectations of a limited number of alliances. This implies that buying firms can actively shape their supplier relationships and influence supplier resource allocation decisions (Lorenzoni & Lipparini, 1999; Mahmood, Zhu, & Zajac, 2011; McEvily & Marcus, 2005; Wang et al., 2013).

A number of studies have addressed how idiosyncratic partner investments otherwise known as (relation-specific investments) yield positive relational outcomes (De Vita et al., 2011). Underlying these studies is the notion that relationships develop over time, where relation-specific investments signal commitment and intentions to invest in a long-term relationship (De Vita et al., 2011; Lui, Wong, & Liu, 2009). The studies of Dyer (1996, 1997) and Jap (1999) documented how relation-specific investments in buyer-supplier relationships resulted in synergistic benefits. They further noted that relational view captures the essence of this understanding. Idiosyncratic partner investments are a central element in this theory, which argues that the larger the partners' relation-specific investments, the greater the potential for synergistic profits. Especially in industries where the success of a firm is largely dependent on its suppliers' performance (e.g. Cosmetics, automobile, electronics), supplier-specific investments in knowledge sharing routines or supplier development programs tailored toward individual suppliers are common practice (Dyer & Hatch, 2006; Mesquita, Anand, & Brush, 2008). Supplier-specific investments create positive expectations of continued future exchanges and the buyer's investment increases the supplier's chance of reaping long-term benefits (Rokkan et al., 2003). The buyer's investments indicate potential future value for the supplier, which justifies their reciprocation of the buyer's commitment (Rokkan et al., 2003). The supplier will compare the relational value of a specific buyer with the value gained in alternative relationships; (Steensma & Lyles, 2000). Relational investments therefore provide the supplier with an incentive to prioritize the investing buyer and allocate resources accordingly. Dyer (1997) notes that buyers employing arm's-length relationships without any investments are unlikely to receive the supplier's newest technologies, ideas, or efforts, which are needed for successful collaboration.

The Cosmetic industry in Kenya is a very lucrative, innovative, fast-paced industry. This sector has grown over time both in terms of value and quantity of imports. (Economic Survey, 2015).In today's competitive economy, focus has steadily increased on delivering value to the customers. Globalization, technological change and demanding customers make the marketplace more fiercely competitive than ever before (Fawcett *et al.*, 2007). Innovation is the key to success, as product life cycles tend to be short hence companies should adopt best practices in order to remain competitive and to ensure on-time supply (short life cycle) of products. Concurrent to the focus on customer value, the marketplace in which businesses operate today is widely recognized as being complex and turbulent (Christopher, 2000). According to Kemunto (2014), asserts that in Kenya there are about 226 Multinational Corporations according to Kenya Beaural of Statistics. Majority seem to have integrated the supply chain. Despite these benefits, many firms in developing countries are striving to cope with management of individual functions instead of integrating activities into key supply chain processes. In addition, only a few firms have adopted and successfully implemented the concept of integral relationships in Kenya (jointly planning, controlling, and designing a supply chain (Cook, Heiser & Sengupta, 2011).

1.1 Statement of the Problem

As the level of competition in the 21st Century intensifies and markets become more global, so do the challenges associated with getting a product and service to the right place at the right time and at the lowest cost also continue to be on the increase. Consequently, the whole process of understanding and practicing supply chain management has become an essential prerequisite for staying competitive in the global race and for

enhancing performance. Cosmetics industry is one of the fastest growing industry in Kenya. It is estimated that Kenyans spend up to 4 Billion Shillings each month on cosmetics and its related beauty products. The industry compete in a market where rivalry is intense with a plethora of brands and sub brands occupying both the lower and upper tiers of the price continuum. Despite its fast growth, past research done on this sector reveals that there are quite a number of supply chain challenges, which includes: securing a reliable internal operation capabilities, supply chain disruptions, complexities in the supply chain, inconsistencies of quality supplies, poor visibility of demand, lack of cooperation among supply chain members, conflicts among supply chain members, short product life cycles and competition from other supply chains (Gordon Otila, 2011; Betty, 2014; Anderson, 2012). The level of competition in the cosmetics industry has reached a high level, and there is therefore the need for these firms to explore other avenues from which their performance can be increased. One of the strategies being employed by firms is integral relationships and supply chain agility, both upstream and downstream in order to enhance their level of competitiveness and eventually firm performance. This will require the development of an Idiosyncratic Partner Investments by the players in the supply chain. Reviewed studies reveals little to none has been done regarding the effect of Idiosyncratic Partner Investments on performance, taking into account a moderating effect of technological engagement. This becomes essential to be addressed and their implications on firm performance must be fully recognized and examined in a developing economy. The study therefore was designed to fill this knowledge gap by assessing the effect of Idiosyncratic Partner Investments on performance of cosmetics manufacturing firms in Nairobi County, taking into account the moderating effect of technological engagement.

1.2 Specific Objective

i)   To assess the effect of Idiosyncratic Partner Investments on Performance of Cosmetics Manufacturing Firms in Nairobi County.

1.3 Research Hypothesis

i)   Idiosyncratic Partner Investment has no significant effect on the Performance of Cosmetics Manufacturing Firms in Nairobi County.

1.4 Significance of the Study
         The findings of the study will assist corporate managers in making sound and informed management decisions and enable them to focus on their customers more efficiently. It will give policy makers a glimpse of how idiosyncratic partner investment affects the performance level of cosmetics firms and consequently identify mechanisms that can be harnessed by the regulators to achieve improved performance of their firms. With such exposition, managers will understand how firms can perform better and add value to the shareholders under Supply Chain Management orientation. In addition, the study will be helpful to the government and policy makers for improvement on their systems and better decision making. The study will avail information to the Kenya's cosmetic regulatory authorities whose interest is to ensure supply of quality and safe cosmetic products to the Kenyan public. To the Academic Scholars, the study will be useful in enriching the body of knowledge. It will help to expand their knowledge further about idiosyncratic partner investments and how it affects the performance of a firm.

II.   LITERATURE REVIEW
2.1 The Relational View Theory (RVT)
         Unlike the resource-based view of the firm (RBV) which proposes that a firm's superior performance originates from its own resource-based advantages (Barney 1991), the Relational View (RV) theory suggests that a firm's sources of competitive advantage may extend beyond firm boundaries. Researchers have proved that superior performance can be achieved via relation-specific investments and collective efforts of the SC partners (Dyer, 1996). They further argued that firms having strong ties with SC partners have better prospects for achieving competitive advantage compared to firms operating in isolation. The view in RV theory supports that competitiveness emerges from inter-firm sources of advantage rather than from within-firm sources (Mesquita *et al.,* 2008). Relational View theory supports shift of focal point from the firm level to chain level of competition, and is an important extension to the RBV (Choi, 2015). Therefore, supply chain integral relationship is an essential practice that supply chain partnering firms should build and maintain. Performance cannot be achieved without SCA, while Supply Chain Agility cannot be developed without collaborating with the supply chain partners (Braunscheidel & Suresh, 2009). Superior performance is an outcome of firms' relational specific investments with supply chain members.

Relational competencies influence the patterns of SCM practice and can improve the performance of a supply chain (Paulraj *et al.,* 2012). Particularly, the importance of three relational competencies has been highlighted in prior research: communication, cooperation and integration (Omar *et al.,* 2012). Companies no longer compete against each other as autonomous entities; instead competition has shifted to supply chain against supply chain (Stank *et al.,* 2005). The identification of complementary resources and capabilities can help supply chain members combine their resources to more effectively respond to changes (Gligor & Holcomb, 2012). Establishing knowledge-sharing routines across supply chain members is essential for a coordinated agile response (Christopher *et al.,* 2004). Further, agility research shows that shared information between supply chain partners can only be fully leveraged through process integration. This means collaborative working between buyers and suppliers, joint product development, and common systems (Christopher, 2000). This is consistent with the RV theory and suggests that in order to ensure a high degree of process integration, investments in relation-specific assets might be necessary. Despite the different applicability between the relational view and resource-based view, both theories state that idiosyncratic capabilities increase the barriers for competitors to duplicate these competences, thus giving an advantage over competitors in the form of differentiation. Alliances serve to access resources that are difficult to obtain on the market, which is characterized by high barriers to trade/access unique resources (imperfect mobility). Finally, the relationships in the relational view are assumed to be ongoing, since they are not subject to time. The relational rents that are extracted from joint efforts to create an idiosyncratic relationship require a significant amount of time to develop but this is not mentioned as a constraint. In reality, firms agree to enter in relationships for a fixed amount of time and renegotiate about prolonging the partnership when this period expires (Stank *et al.,* 2005). Firm supply chain performance results from the firm's ability to reconfigure firm-level and supply chain-level resources. The identification and evaluation of potential complementary resources and capabilities across supply chain members, the collaborative awareness, the creation of knowledge-sharing routines, and the investment in supply chain relation-specific assets can contribute to the creation of firm supply chain agility and hence performance of the firms.

2.2 Empirical Review
2.2.1 Idiosyncratic Partner Investments and Performance

Relation-specific investments Relation-specific (or idiosyncratic) investment is a key concept in business relationships and supply chain management literature. It represents those investments that have been made by cooperating actors and are sticky to the given relationship. These investments cannot be mobilized and transferred easily to other relationships (Williamson, 1985; Anderson & Weitz, 1992). It is also important to note that collaborative relationship between supply chain partners can be strengthened and supported via financial investments in the relationship (Min *et al.,* 2005). These investments represent a "non-retrievable commitment of a firm's resources to joint investments that will have joint worth, but only while the relationship continues" (Wilson, 2006).

Relationship-specific investments can take different forms, such as time, people, money, training and technology and have the potential to provide social and economic ties between cooperating parties. The idiosyncratic investment of exchange partners for a specific business relationship, which is irrecoverable, is termed as Relationship-specific investments (Ganesan, 1994). Buying firms trust selling firms that invest in that specific relationship (Palmatier *et al.,* 2007) as seller RSIs send positive signal to the customer that by providing tangible evidence the supplier is believed and cares about the relationship. Idiosyncratic investments are very difficult to be transferred (Skarmeas *et al.,* 2002) and have little salvage value in another exchange context (Williamson, 1981) and hence switching cost is high. When a party in an exchange relationship employs RSIs, then the party shows commitment to the exchange relationship and the other party shows greater confidence in that party (Anderson & Weitz, 1992). An exchange partner's RSIs create barriers to exit the existing relationship with the other partner and make the investor more dependent and hence committed on the other partner (Ganesan, 1994). Skarmeas *et al.* (2002), RSIs create a locked-in condition hence relationship specific investment is a valuable precursor of both trust and commitment. Idiosyncratic investments are assets that are committed specifically to the relationship at hand. These assets cannot be redeployed easily outside the relationship and, therefore, their value depreciates in the event the primary relationship is discontinued (Bensaou & Anderson, 1999). According to Powers and Reagan (2007), there are costs that are associated with ending the relationship and starting a new one with another partner. Both heaviness and commitment help the partners to sustain and competitively develop ongoing business relationships. Long lasting relationships tend to strengthen interaction, making relational bonds richer and supporting more complex and innovative types of cooperation (Zhao *et al.,* 2014).

Second, is Physical Asset Specificity. When one or both parties to the transaction make investments in equipment and machinery that involves design characteristics specific to the transaction. Third, is human asset

specificity. Investments in relationship-specific human capital that often arise through a learning-by-doing process. Finally, dedicated assets. These refer to General investments by a supplier that would not otherwise be made but for the prospect of selling a significant amount of product to a particular customer. If the contract were terminated prematurely it would leave the supplier with significant excess capacity. The idiosyncratic investment of exchange partners in supply chain helps increase the level of obligation between the involved parties, hence improved performance of the firm.

2.2.2 Concept of Performance

Organizational performance comprises of the actual output or results of an organization as measured against its intended outputs or goals and objectives. According to Richard and Devinney (2005) organizational performance encompasses three specific areas of firm outcomes: financial performance (profits, return on assets, return on investment); product market performance (sakes, market share) and shareholder returns (total shareholder return, economic value added). Non-financial measures are at the heart of describing strategy and developing a unique set of performance measures that clearly communicate strategy and help in its execution (Kalpan & Norton, 2001). Researchers have argued that internal integration of various activities in an organization will be able to enhance economic performance (Flynn, Huo & Xhao, 2010). The authors further asserts that internal integration of organizational processes is a recipe for moderated corporate performance. The primary goal then of organizational performance is to increase organizational effectiveness and efficiency so as to improve the ability of the organization to deliver goods and services to its customers (Kalpan & Norton, 2001). The two essential requirements for supply chain performance are proper integration in the partnerships with suppliers and the effective utilization of information technology. It is argued by most researchers that active involvement and support of all the supply chain entities can create competitive values. The ultimate judge of supply chain performance is the customer in terms of effective and timely responses to their ever changing tastes and preferences. The main focus today for largest scale firms is on becoming efficient and flexible in their manufacturing methods (Awino & Gituro, 2011). Different strategies are therefore needed to manage the flow of goods from the point of production to the end user in order to handle uncertainty in the business environment. Various performance metrics have been developed to measure, evaluate, and monitor the operation of the entire supply chain (Ugur & Erman, 2013). The supply chain operations reference (SCOR) model was introduced in 1996 by the Supply-Chain Council, which is a global organization of firms interested in SCM. According to Theeranuphattana (2011), the SCOR model offers users standard descriptions of management processes that make up the SC, a framework of relationships among the standard processes, standard metrics to measure process performance, management practices that produce best-in-class performance, standard alignment to software features and functionality that enable best practices.

2.2.3 Moderating role of Supply Chain Technology

The technologies in supply chains represent one of the fundamental elements that link the organizations of a supply chain into unified and coordinated system (Handfield & Nichols, 2007). The introduction and utilization of integrated technologies for managing the supply chain would not only enhance quality as well as reduce delivery times and costs, but also enhance the company's competitive position (Yusuf *et al.,* 2004); Swafford *et al.* (2008); Narasimhan *et al.* (2009). Raymond (2005), asserts that technology plays an increasingly critical role in businesses large and small. Research in the past has shown a positive impact on technology adoption on small businesses, by helping firms enhance their operational efficiency. Technology adoption drives business growth and integrates business' operations with strategies (Swafford *et al.,* 2008). Technological engagement in the organizational context may be linked to performance and growth through improvements in efficiency, productivity, quality, competitive positioning and market share (Guan & Ma, 2003; Chen & Paulraj, 2004).

At its simplest, the technology that can support SC operations is one that leads to improvements in productivity, routine operations, and logistical activities in the SC network. This productivity is measured in terms of the level of network optimization, while routine operations within the network covers the management of the supply chain inventory and capacity. There are various forms of technologies that have been adopted over the years by different members and partners in a SC network. Each of these technologies along the SC is expected to improve the firm's operational performance and overall performance if well aligned with the strategic goals.

III.   RESEARCH METHODOLOGY

3.1   Research Design

Cross-sectional survey research design was used in the study. Cross sectional survey design enabled the researcher to collect data once over the same period of time, analyze and make a report. The study adopted positivism philosophy because the study variables were based on facts derived from empirical literature review and the theoretical premises discussed in chapter two.

3.2 Target Population

The study targeted 10 cosmetics manufacturing firms in the Nairobi County, comprising of: Buyline Industries Cosmetics, Haco Industries Cosmetics, Triclover (k) Industries, Nightrose Cosmetics, Unilever Industries, Johnsons CS Industries, Clique Limited Cosmetics, Interconsumer Products Cosmetics, Oasis Limited Cosmetics and Ariman Cosmetics.

Supply chain managers or the procurement employees were considered key informants and respondents to the questionnaire due to their knowledge and skills in the area of study, and thus provided reliable information. The target population of the study consisted of 714 employees working in the procurement departments in the cosmetic manufacturing firms in County Government of Nairobi.

3.3 Sample Size

According to William, Barry and Mitch (2013), at least 10 % of the target population is important for the study. The study therefore applied a sample size of similar studies by adopting a 35% proportion of the universe to determine the sample size. This gave a sample size of 256 respondents.

3.4 Research Instruments

Self-administered questionnaires were the main research instruments of collecting primary data (Eriksson & Kovalainen, 2008). Self-administered questionnaire has a higher response rate (Benchhofer & Paterson, 2008). The likert scale was used in the study.

3.5 Data Processing and Analysis

Data analysis entails statistical analysis of data gathered to see if the hypotheses have been supported (Uma & Roger, 2011). The data that were obtained from the questionnaires were both quantitative and qualitative. Before processing the responses, every filled questionnaire was tallied for every response per question. The responses were first edited, coded and cleaned for analysis. Qualitative data was condensed by editing, paraphrasing and summarizing in order to derive meaning from it. Using the content analysis technique, the data was coded and thereafter put into theme categories and tallied in terms of the number of times it occurs. Data was then tabulated into respective themes**.** This process according to Frankel and Wallen (2000) involves reading through the questionnaires, transcripts and other sources of data, developing codes, coding the data, and drawing connections between the various discrete pieces of data. Quantitative data were analyzed using both descriptive and inferential statistics. Descriptive statistic such as, mean, standard deviation and variance were used to give a glimpse of the general trend (Mugenda, 2011). Inferential statistics was also applied in the study. Inferential statistics techniques allowed the researcher to use a sample size of 256 respondents to make a generalization about the entire population (Cooper & Schindler, 2011). SPSS was used to conduct both descriptive and inferential data analysis of each variable.

IV. RESULTS AND DISCUSSION

4.1 Factor Analysis on Idiosyncratic Partner Investment and Performance

Factor analysis was carried out to describe the variability among the observed variables and check for any correlated variables with the aim of reducing data that was found to be redundant. Conventionally, statements scoring more than 30% which is the minimum requirements for inclusion of variables into the final model were included (Hair, Black & Rabin, 2010). Factor analysis on Idiosyncratic Partner Investment and Performance was carried out. The results are presented in Table 4.1.

Table 4.1: Component Matrix for Idiosyncratic Partner Investment

Statement	Factor Components
We have made major investments, specifically for these relationships, in time and effort in order to improve our products and services	0.57
Our company shares resources and abilities which combined with those of the parties in the relationship enables us to achieve objectives beyond what we could attain on our own	0.837

We provide our partners and clients with the opportunity to use our resources, such as plant, technology, software or machinery hence provide quality products and services	0.724
Our company provides resources and abilities which are beneficial to the relationship	0.551
Our firm has made specific investments in assets, software or personnel so as to better meet the customers' needs and that the supplier can adequately meet our needs	0.783
We have made significant investments in tooling and equipment dedicated to this supplier	0.693
Qualifying this supplier has involved substantial commitments of time and money	0.656
The supplier's product requires technical skills that are unique to this supplier	0.565
Average	**0.6724**

 Extraction Method: Principal Component Analysis.

Table 4.1 shows the loadings of the eight variables. The higher the absolute value of the loading, the more the factor contributes to the variable. From the analysis shown in Table 4.1, most respondents reported that the company shared resources and abilities which combined with those of the parties in the relationship enables them to achieve objectives beyond what they could attain on their own with a factor component of 83.7%. The firm making specific investments in assets, software or personnel so as to better meet the customers' needs and that the supplier can adequately meet the firms needs scored a factor component of 78.3%. Provision of the partners and clients with the opportunity to use the firm's resources, such as plant, technology, software or machinery to provide quality products and services, scored a factor component of 72.4%. This was followed by the statement that the firm have made significant investments in tooling and equipment dedicated to the supplier scoring a factor component of 69.3%. Qualifying the supplier has involved substantially commitments of time and money scored a factor component of 65.6%. The statement on the firm making major investments specifically for those relationships in time and effort in order to improve the products and services scored a factor component of 57%. The supplier's product requires technical skills that are unique to this supplier scored a factor component of 56.5%. The statement on the firm making major investments specifically for those relationships in time and effort in order to improve the products and services scored a factor component of 57%. The supplier's product requires technical skills that are unique to this supplier scored a factor component of 56.5%, while the statement on the company provides resources and abilities which are beneficial to the relationship scored a factor component of 55.1%. Overall, majority of the respondents were in agreement that there is a close relationship between idiosyncratic partner investment and Performance of cosmetics manufacturing firms in Nairobi County, Kenya, as seen from the mean score of 67.24%. Thus none of the statements required to be dropped since their factor components were above 30% which is recommended threshold for inclusion of variables into the final model (Hair, Black & Babin, 2010).

4.2   Correlation of Study Variables

Correlation between variables is a measure of how the variables are related. The most common measure of correlation in statistics is the Pearson Correlation (technically called the Pearson Product Moment Correlation or PPMC), which shows the linear relationship between two variables. Results are between -1 and 1 inclusive, i.e $-1 \leq \rho \leq 1$. A result of -1 means that there is a perfect negative correlation between the two values, while a result of 1 means that there is a perfect positive correlation between the two variables. Result of 0 means that there is no correlation between the two variables (Gujarat, 2004). If the value of R is close to one, then it shows there is a strong correlation between the variables. If the value of R is close to zero, then the correlation is weak.

Table 4.2 Correlation between Idiosyncratic Partner investment and Performance

Variable		Performance
Idiosyncratic Partner investment	Pearson Correlation	.529**
	Sig. (2-tailed)	.000
	N	210

** Correlation is significant at the 0.01 level (2-tailed).

It is also evident from the results that there is positive and significant correlation between Idiosyncratic Partner Investment and Performance (r=.529, p < 0.01). This implies that the introduction of specific investments in assets, software or personnel enhanced the Performance of cosmetics manufacturing firms.

4.3   Chi Square Test

To examine the strength of associations between the bivariate categorical variables, a Chi-Square test for association was done for the independent variables, dependent and moderating variable.

Table 4.3: Chi- Square Tests between Idiosyncratic Partner Investments and Performance

	Value	Degree of Freedom	Asymptotic Significance (2-sided)
Pearson Chi Square	1171.964[a]	504	.000
Likelihood Ratio	381.615	504	1.000
Linear-by- Linear Association	57.941	1	.000
Sample size	210		

The Pearson Chi-Square test results of the association between idiosyncratic partner investments and Performance are presented in Table 4.3. It shows a Chi-Square value = 1171.964, p = 0.000. The p value is less than 0.05 and hence there is a statistically significant association between Idiosyncratic Partner Investments and performance.

4.4   Regression Analysis

Multiple regression analysis was conducted so as to determine the relationship between Performance, technological engagement and the independent variables. Regression models were generated at two levels. The first level without the interaction term and the second level with the moderator.

Relationship between Idiosyncratic Partner Investments and performance in Cosmetics Manufacturing Firms in the County Government of Nairobi

Table 4.4 shows two model summary for idiosyncratic partner investments when moderator is included and when the effect of the moderator is not included.

Table 4.4: Regression Model summary for Idiosyncratic Partner Investments

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics F Change	Df1	Df2	Sig. F Change
1	.529[a]	.280	.276	.390	.280	80.074	1[a]	206	.000
2	.670[b]	.449	.443	.342	.169	62.725	1[b]	205	.000

a.   Predictor (Constant), Idiosyncratic Partner Investments
b.   Predictor (Constant), Idiosyncratic Partner Investments * Supply Chain Technology

Model 1 shows there is a positive relationship between idiosyncratic partner investments and Performance (R = 0.529, R^2 = 0.280) and F (1,206) = 80.074, p=0.000). An R^2 of 0.280 indicates that 28% of the variations in the Performance of cosmetics manufacturing firms can be accounted for by idiosyncratic partner investments. **Model 2** shows the results after the interaction of the moderator (Idiosyncratic Partner Investments***** Supply Chain Technology) was introduced in the model. The results show there is a positive relationship between Idiosyncratic Partner Investments and Performance in cosmetics manufacturing firms with (R = 0.670, R^2 = 0.449) and F (1,205) = 62.725, p=0.000).

An R^2 of 0.449 indicates that 44.9% of the variations in the Performance of cosmetics manufacturing firms can be accounted for by Idiosyncratic Partner Investments *Technological Engagement. The inclusion of the interaction term resulted in a R^2 change of .169 which indicates that the moderating effect explains 16.9% of the variation in the Performance above and beyond the variation explained by the idiosyncratic partner Investments. Moderating effect of Supply Chain Technology on the relationship between Idiosyncratic Partner Investments and Performance in cosmetics manufacturing firms in Nairobi County, Kenya shows a significant effect. Table 4.5 shows the significance test results with two models; model 1 without the inclusion of the moderator whereas model 2.

Table 4.5: Significance Test Results for Idiosyncratic Partner Investments

Model		Unstandardized Coefficients		Standardized Coefficient		
		B	Std. Error	Beta	T	Sig
1	(Constant)	2.332	.203		11.483	.000
	Idiosyncratic Partner Investments	.462	.052	.529	8.948	.000
2	(Constant)	.867	.257		3.376	.001
	Idiosyncratic Partner Investments	.305	.049	.349	6.174	.000
	Supply Chain Technology	.484	.061	.448	7.920	.000

a. Dependent Variable: Performance

Model 1 in Table 4.5 indicates that the relationship between Idiosyncratic Partner Investments and Performance was positive and significant (b1=0.462, p = 0.000, Beta = 0.529). Equation 4.1 shows the regression equation for model 1, for every unit increase in Idiosyncratic Partner Investments, Performance is predicted to increase by 0.462.

OLS Model: Performance = 2.332+ 0. 462 Idiosyncratic Partner Investments……Equation 4.1

This implies that an increase in several factors pertaining Idiosyncratic Partner Investments leads to increase in Performance amongst cosmetics manufacturing firms. The null hypothesis that states Idiosyncratic Partner Investments has no significant effect on the Performance was rejected at 95% significance level. The study therefore fails to reject the alternative hypothesis and concludes that Idiosyncratic Partner Investments has a significant effect on Performance amongst Cosmetics Manufacturing Firms in Nairobi County**.**

Model 2 in Table 4.5 shows that the moderating effect of Supply Chain Technology on the Relationship between Idiosyncratic Partner Investments and Performance of cosmetics manufacturing firms in Nairobi County was positive and significant (b1=0.305, p = .000, Beta = 0.349). Equation 4.2 shows the regression equation with the inclusion of the moderator (Supply Chain Technology). The equation implies that for every unit increase in Idiosyncratic Partner Investments, Performance is predicted to have a change of 0.276 given that Technological Engagement is kept constant. The null hypothesis is therefore rejected at 95% significance level and it is concluded that Supply Chain Technology moderates the relationship between Idiosyncratic Partner Investments and Performance.

MMR Model: Performance = 1.022+ 0.276 Idiosyncratic Partner Investments + 0.469 Supply Chain Technology …………………………………… Equation 4.2

4.5   Hypothesis Testing Results

To test for individual significance of a coefficient, t-test was used under the null hypothesis. The test was done at 95% level of significance (α=0.05), critical value t=1.96. The null hypothesis is rejected when the t-

calculated is strictly greater than the t-tabulated. The five research hypothesis that the study sought to test are addressed in this section.

Idiosyncratic Partner Investment and Performance

The hypothesized research hypothesis for idiosyncratic partner investment was stated as:

Ho: β_1= 0: Idiosyncratic Partner Investment has no significant effect on the Performance of Cosmetics Manufacturing Firms in Nairobi County.

The test was done at 95% level of significance (α=0.05), critical value t=1.96. T-test statistic was used to test for the significance of Idiosyncratic Partner Investment. From Table 4.5, Model 1, the T value obtained was 8.948. Comparing the t-tabulated and t-calculated values statistically, it is evident that the t_calc > t_ α. The study therefore rejected the null hypothesis and concluded that idiosyncratic partner investment has a significant effect on the performance of cosmetics manufacturing firms in Nairobi County. This is because collaboration processes inevitably require supplier's idiosyncratic investments and the sharing of sensitive cost and process information on the part of the customer (Buvik & Gronhaug, 2000).

Thus SC integral relationships inevitably require idiosyncratic investments by either party of the supply chain members. The findings are supported by study findings of Harland & Lamming, (2004) who found that idiosyncratic partner investment secures sufficient levels of cooperation and commitment, and would allow the chain members to accept the importance of the potential rewards that can be achieved through collaboration even if the costs are to be shared. The level of accumulated relation-specific investments is closely linked to several relational constructs.

It is understood as an indicator for relationship heaviness (Håkansson & Ford, 2002), and one of the factors influencing relationship stability. Resource based view theory was relevant to the study because idiosyncratic partner investment in supply chain helps increase the level of obligation between the involved parties, gaining competitive advantage in the market hence performance of the firm. Rowley (2003) stresses the role of relational embeddeness in deepening and strengthening inter-firm relationships. Inter-firm relationship acquires a social character above and beyond the technical characteristics of the exchange at hand (Heugens & Zyglidopoulos, 2008).

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS
Summary of the Findings

The objective of the study was to assess the effect of idiosyncratic partner investments on the Performance of cosmetics manufacturing firms in Nairobi County. Generally, the respondents agreed that idiosyncratic partner investment contributes positively to the Performance of cosmetics manufacturing firms in Nairobi County. It is evident from the results that there is positive and significant correlation between Idiosyncratic Partner Investment and Performance (r=.529, p < 0.01). The study also rejected the null hypothesis and concluded that Idiosyncratic Partner Investment had a significant effect on the Performance of cosmetics manufacturing firms in Nairobi County.
The findings implied that Idiosyncratic Partner Investment is a significant factor that can affect Performance of cosmetics manufacturing firms. From the findings, results reveal that there is a positive relationship between idiosyncratic partner investments and Performance (R = 0.529, R^2 = 0.280). An R^2 of 0.280 indicated that 28% of the variations in the Performance of cosmetics manufacturing firms can be accounted for by idiosyncratic partner investments.

Conclusions of the study
From the findings of the study, the researcher concluded that idiosyncratic partner investment was a predictor for performance. It is evident from the results that cosmetic manufacturing firms uses idiosyncratic partner investment as a tool for deepening and strengthening inter-firm relationships. Firms need to build idiosyncratic investments specifically for their relational exchanges. The findings of the study led the researcher to conclude that cosmetics manufacturing firms have not made major investments, in time and effort to learn about the business practices of their suppliers, specifically for relational exchange. Cosmetics manufacturing firms should also make major investments in time and effort to develop supplier relationships.

Recommendations of the study
In today's volatile market environments, SC integral relationships is perceived to be a significant competitive weapon. To achieve a competitive advantage in a volatile business environment, the study

recommends that firms should align with all the parties in the supply chain including the suppliers and customers. This will help to streamline operations and together achieve a level of performance beyond individual companies. The study therefore recommends that companies that are coping with more highly dynamic environments like cosmetics manufacturing firms need to be more agile and to enhance their SC integral relationships, thus achieving their performance. Based on the results, findings and conclusions, the researcher recommends that cosmetics manufacturing firms in Kenya need to build idiosyncratic investments specifically for their relational exchanges. The management of these firms have to make major investments, in time and effort to learn about the business practices of their suppliers, specifically for relational exchange. It is also recommended that buyers should stick to their major suppliers if they add value to them. Buying firms should also make major investments in time and effort to develop supplier relationships.

REFERENCES

[1]. Aguinis, H., & Gottfredson, R. (2010). Best Practice Recommendations for estimating interraction effects using Moderated Multiple Regression. *Journal of Organizational Behaviour, 31*, 776-786.

[2]. Andersen, P. H., Christensen, P. R., & Damgaard, T. (2009). Diverging expectations in Buyer-Seller Relationships: Institutional contexts and relationship Norms. *Industrial marketing management, 38*(7), 814-824.

[3]. Anderson, E., & Weitz, B. (1992). The use of Pledges to build and sustain committment in distribution channels. *Journal of Marketing research, 29*, 18-34.

[4]. Awino, Z., & Gituro, W. (2011). An Emprirical Investigation of Supply Chain Management Best Practices in Large Manufacturing Firms in Kenya. *Prime Journals. Business Administration and management, 1*(2), 26-31.

[5]. Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*, 99-120.

[6]. Burgess, K., Singh, P. J., & Koroglu, R. (2006). Supply Chain Management: A Structured Literature Review and Implications For Future Research. *International Journal of Operations Business Logistics, 28*(1), 195-314.

[7]. Buvik, A., & Reve, T. (2001). Asymmetrical deployment of specific assets and contractual safeguarding in industrial purchasing relationships. *Journal of Business Research, 7*(2), 111-115.

[8]. Choi, T. Y., & Wu, Z. (2015). Taking the leap from dyads to triads: Buyer Supplier Relationships in Supply Networks. *Journal of Supply Chain Management, 45*(1), 8-25.

[9]. Christopher , M. (2000). The Agile Supply Chain: Competing in Volatile Markets. *Industrial Marketing Management, 29*(1), 37-44.

[10]. Christopher, M., Lowson, R., & Peck, H. (2004). Creating Agile Supply Chains in the Fashion Industry. *International Journal of Retail and Distribution Management, 32*(8), 367-376.

[11]. Cooper, D., & Schindler, P. (2011). *Business research Methods* (10th ed.). New York: Mc Graw Hill/ Irwin.

[12]. Dyer, & Singh. (1996). The Relational View: Cooperative strategy and sources of interorganizational competitive advantage. *Academy of Management Review, 22*, 660-679.

[13]. Fawcett, S., Magnan, G., & McCarter, M. (2008). A Three-Stage Implementation Model For Supply Chain Collaboration. *Journal of Business Logistics, 29*(1), 93 -121.

[14]. Ganesan, S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of marketing, 58*(2), 1-19.

[15]. Gligor, D. M., & Holcomb, M. C. (2012). Understanding The Role of Logistics Capabilities in Achieving Supply Chain Agility: A Systematic Literature Review. *Supply Chain Management: An International Journal, 17*(4), 438-553.

[16]. Gordon, O. O. (2005). *Supply Chain management Practices used in the Cosmetics Industry in kenya.* Nairobi: University of Nairobi.

[17]. Guan, J., & Ma, N. (2003). Innovative Capability and Export Performance of Chinese Firms. *Technovation, 23*(9), 737-747.

[18]. Gujarat, D. N. (2004). *Basic Econometrics.* New York: Mc GrawHill Book Co.

[19]. Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate Data Analysis* (7th Ed.). New Jersey: Prentice Hall.

[20]. Handfield, R. B., & Nichols, E. L. (2007). *Introduction to Supply Chain Management.* London: Prentice Hall.

[21]. Harland, C. M., Zheng, J., Johnsen, T., & Lamming, R. (2004). A Conceptual Model for Researching the Creation and Operation of Supply Networks. *British Journal of Management, 15*(1), 1-21.

[22]. Heugens, P. P., Van Essen, M., & Van Oosterhout, J. (2008). Meta-Analyzing ownership concentration and firm performance in Asia: Towards a more fine-grained understanding. *Organization Studies, 27*(3), 391-411.

[23]. Kalpan, R. S., & Norton, D. P. (2001). The Balanced Scorecard measures that drive Performance. *Harvard Business Review, 70*, 71-90.

[24]. Mahapatra, S. S. (2011). Supplier Selection in Supply Chain Management: A Fuzzy Multi-Criteria Decision-Making approach. *International Journal of Services and Operations management, 8*(1), 108-126.

[25]. Mesquita, L. F., Anand, J., & Brush, T. H. (2008). Comparing the resource-based and relational views: Knowledge transfer and spillover in vertical alliances. *Strategic Management Journal, 41*, 913-941.

[26]. Min, S., Roath, A. S., Daugherty, P. J., Genchev, S. E., Chen, H., Arndt, A. D., & Richey, R. G. (2005). Supply Chain Collaboration: Whats Happening? *The International Journal of Logistics Management, 16*(2), 237-256.

[27]. Mugenda, O. M., & Mugenda, A. G. (2011). *Research Methods: Quantitative and Qualitative Approaches.* Nairobi: Acts Press.

[28]. Narasimhan, R., & Das, A. (1999). Manufacturing Agility and Supply Chain Management Practices. *production and Inventory Management Journal, 40*(1), 10-15.

[29]. Omar, R., Ramayah, T., LO, M. C., Sang, T. Y., & Siron. (2015). Informatiom sharing quality and usage of IT tools in Malaysian organizations. *African Journal of Business Management, 4*(12), 2486-2499.

[30]. *Operations Management, 24*(2), 170-188.

[31]. Pallant, J. (2010). *SPSS Survival Manual: A step by step guide to data analysis using SPSS* (4th ed.). New York: Open University Press.

[32]. Palmatier, R. W., Dant, R. P., & Grewal, D. (2007). A Comparative Longitudinal Analysis of Theoretical Perspectives of Inter-Organizational Relationship Performance. *Journal of marketing, 71*(4), 171-194.

[33]. Paulraj, A., Chen, I. J., & Lado, A. A. (2012). An Empirical Taxonomy of Supply Chain Management Practices. *Journal of Business Logistics, 33*(3), 227-244.

[34]. Powers, T. L., & Reagan, W. R. (2007). Factors influencing successful buyer-seller relationships. *Journal of Business Research, 60*(12), 1234-1242.

[35]. Rowley, E. J. (2003). The Four Cs of Customer Loyalty. *Marketing Intelligence and Planning, 23*(6), 574-581.

[36]. Sekaran, U. (2003). *Research Methods for Business: A Skill-bulding Approach* (4th Ed.). New York: John Wiley and Sons.

[37]. Sekaran, U., & Bougie, R. (2010). *Research Methods For Business: A Skill Building Approach.* London: Wiley.

[38]. Skarmeas, D., Katsikeas, C. S., & Schlegelmich, B. B. (2002). Drivers of committment and its impact on performance in cross-cultural buyer-seller relationships: The importers perspective. *Journal of International Business Studies, 33*(4), 757-783.

[39]. Stank, T. P., Davis, B. R., & Fugate, B. S. (2005). A strategic framework for supply chain orinted logistics. *Journal of Business logistics, 26*(2), 27-45.

[40]. Swafford, P. M., Ghosh, S., & Murthy, N. (2008). Achieving Supply Chain Agility Through IT Integrtion and Flexibility. *International Journal of Production Economics, 116*(2), 288-297.

[41]. Uma, S., & Roger, B. (2013). *Research Methods for Business: A Skill-Building Approach* (6th ed.). Chichester West Sussex: Wiley.

[42]. Wagner, S. M., & Boutellier, R. (2002). Capabilities for managing a portfolio of supplier relationships. *Business Horizons, 45*(6), 79-88.

[43]. Williamsons, O. E. (1983). Credible Committments using Hostages to support Exchange. *The American Economic Review, 73*(4), 519-540.

[44]. Wilson, M. J. (2006). Supply Chains behaving badly: A dynamic model of inter-organizational supply chain exchange behaviour under rational, relational and chaotic paradigms. *Supply Chain Management, 3*, 109-121.

[45]. Yusuf , Y. Y., Gunasekaran, A., Adeleye, E. O., & Sivayoganathan, K. (2004). Agile Supply Chain Capabilities: Determinants of Competitive Objectives. *European Journal of Operations Research, 159*(2), 379-392.

[46]. Zhao, X., Xie, J., & Leung, J. (2005). The Impact of forecasting model selection on the value of information sharing in a supply chain. *European Journal of Operations Research*, 321-344.