

## INNOVATION PRACTICES FOR SUSTAINABLE COMPETITIVE ADVANTAGE

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**ABSTRACT:** *This paper investigates the impact of process and distribution innovation on sustainable competitive advantage. Data are collected from manufacturing firms in the republic of Cameroon. Variables used were Eco-innovative product and service production process, customer relationship management process innovation and distribution innovation practices as the bases for enhancing sustainable competitive advantage. Sustainable competitive advantage was measured by Customer base-Market share, Employee Satisfaction and sustainable growth. We run a series of three multiple regressions of Customer Satisfaction, Employee Satisfaction, and Sustainable growth on explanatory variables defining Strategic process and distribution innovation practices. Our results show companies would have to implement customer relationship management process innovation and distribution innovation practices and companies would have to implement Eco-innovative product and service production process. Our results show that some companies are struggling with the idea of sustainability and Eco-innovative product production process. They need some expert advice on the way forward.*

**KEY WORDS:** innovation practices, process, distribution innovation, sustainable competitive advantage, Cameroon.

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## INTRODUCTION

The business environment is changing more rapidly than before because of the increasing velocity of new technologies in product and service processes as well as in the distribution channels. Moreover, industries are looking for ways to cope with new entrants that present innovative products, mergers, and deregulations which intensifies the competitive pressure. Adding to the increasing dynamic environment, factors such as globalization, deregulation, increasing global and domestic integration of firms have led to an increase in the level of competition between firms (Akman & Yilmaz, 2008). In this environment, successful organizations have already recognized that they have to gain a sustainable competitive advantage in order to outperform their rivals, keep up with the speed of change in technology, nature and designs of products, customer demands and relationships, product distribution and global competition. Companies have to build on strategies

to reflect the tendency of a firm to enhance, appreciate and acquire new ideas, novelty, experimentation and creative processes that may result in new products, services and a saver and quicker means to deliver the products to the final consumers.

## **LITERATURE REVIEW**

### **Theoretical Review**

It has been widely acknowledged that innovation is crucial for sustainable competitive advantage and economic growth (Edquist, 1997; Schumpeter, 1948; Waxell & Malmberg, 2007; Porter, 2008; OECD, 1999). Researchers (Drucker, 1993; Kamien and Schwartz, 1982; Porter, 1990; Hjalager, 2002; Becker and Whisler, 1967) define innovation in various ways. Schumpeter (1934) qualifies innovation as new products/services, new production techniques or new organisational structures. Alternatively, Becker and Whisler (1967) define innovation as the early use of a creative idea by one of the organisations that have similar goals. According to Kamien and Schwartz (1982) innovation occurs as a result of organisations' activities for creating new products/services or production processes. Innovation is also a central idea in the popular imaginary, in the media, in public policy and is part of everybody's vocabulary. Briefly stated, innovation has become the emblem of the modern society, a panacea for resolving many problems, and a phenomenon to be studied. The quest for innovation is so strong that some go so far as to suggest that drugs like Ritalin and Adder, used to treat psychiatric and neurological conditions, should be prescribed to the healthy as a cognitive enhancement "technology" for improving the innovative abilities of our species (Greely et al., 2008).

Although there are many categorizations of innovation offered by different researchers (Abernathy and Clark, 1985; Hjalager, 1997; Weiermar, 2006), in the innovation literature five types of innovation are commonly used by researchers. These are process innovation, service/product innovation, organisational innovation, marketing innovation and business model innovation. Service/product innovation comprises of significantly improved or completely new service or goods (OECD, 2005). The aim of process innovation is to increase efficiency and productivity. In general, the basis of process innovation is technological advances and investments (Hjalager, 2002). Marketing and distribution innovation is related to issues such as development of marketing mix, improving service quality and the innovative techniques to distribute innovation. Organisations attempt to make marketing innovation to find potential markets and to deliver quality service to target markets (Johns, 1999). Innovations in terms of organisational models, managerial techniques, strategies and organisational structures are forms of organisational innovation (Hamel, 2006). The following theoretical literature was also reviewed.

### **Eco-Innovative Production Processes**

Eco innovation is the integration of social and environmental concerns into business practices, products, and services. It also includes the design, development and manufacture of products in a manner that minimizes the health and environmental impacts throughout the product lifecycle, all which is completed in compliance with applicable regulations. Incorporating Eco-innovative practices in product development and production has become more and more important in recent years. The United Nations Conference on Sustainable Development (Rio+20) also promoted sustainable patterns of production. One of the outputs of the Conference, was the adoption of the

10-Year Framework of Programs on Sustainable Consumption and Production Patterns (10YFP). It refers to, among others, to the 2002 Johannesburg Plan of Implementation (JPOI) and builds on the 8 years work of the Marrakech Process. In the future, firms will need to adopt more sustainable practices and outputs if they are to remain competitive and retain their legitimacy through social licence to operate and to thrive. Organisations are increasingly seeing the need to integrate society's expectations into their business strategies, not only to respond to rising pressure from consumers, employees and other stakeholders but also to explore opportunities for creating competitive advantage (Bielak, Bonini, & Oppenheim, 2007; Bonini, Mendonça, & Oppenheim, 2006). To this end,

### **Customer Relationship Management Process**

The customer relationship management process provides the structure for how the relationship with the customer is developed and maintained. It is one amongst many processes that companies can use to reach target customers. In this process, management identifies key customers and customer groups to be targeted as part of the firm's business mission. The aim is that over time, the relationships with these key customers would be solidified through the sharing of product and service information.

This process also requires that companies should tailor Product and Service Agreements (PSA) to meet the needs of key accounts and segments of other customers. Teams work with key accounts is implemented to improve processes, and eliminate demand variability and non-value-added activities. Performance reports should be designed to measure the profitability of individual customers as well as the firm's financial impact on those customers. Customer relationship management process can be achieved through the strategic process and the operational processes outlined below.

### **Distribution Innovation Practices**

Small and medium companies (SMEs) are a major part of the total business establishments around the globe (see Nagai, 2007; Yhee, 2001; Mukhamad & Kiminami, 2011). Due to its significant presence, the sector contributes substantially to Gross Domestic Product (GDP), employment, value-added creation and poverty alleviation (Agyapong, 2010; Salleh, 1991; Vandenberg, 2006). More interestingly, the increased involvement of SMEs in export activities in the recent period would make them more recognizable by competitors, better access to new markets (Ungson *et al.*, 1997), and more supportive of GDP growth (Dunusinghe, 2009; Kotz, 2011).

Previous studies have shown that export failure was substantially contributed by the ineffective processing activities, particularly the distribution channel (Ogbeuhi & Long, 1994), instead of some other factors. Many aspects of distribution channel studied in the past were members affiliation (Anderson, 1997; Rose *et al.*, 2004; Frazier *et al.*, 1989; Brett, 1995; Morrisey, 2006; Jennifer, 2008), coordination management, conflict avoidance, sales and profits performance, information exchange, trust and commitment, all of which was regarded to improve the performance of channel members. In addition, studies on governance of distribution channel, the applications of non-formal channels, the position of channel members,

### **Innovation Strategies for Sustainable Competitive Advantage**

When a firm sustains profits that exceed the average for its industry, the firm is said to possess a competitive advantage over its rivals (porter, 1985). Oliver, (1997) proposes that in order to have a sustainable competitive advantage, consumers must perceive some differences between a firm's product offering and the competitor offering.

For gaining sustainable competitive advantage, a firm has to optimally utilize its internal resources and capabilities to exploit external opportunities at the same time, gauging the external threats. More emphasis has to be placed on the organisation's capability to change, innovate, and be flexible and to learn how to adapt to a rapidly changing environment. Oliver (1997) argues that both resources and institutional capital are indispensable to creating a sustainable competitive advantage. The capability based view of the firm also explains how enterprises develop and maintain their sources of competitive advantage. However, it does not explain why some firms, which developed a core competence, eventually lost it because of "core rigidities" within those firms.

The resource based theory argues that competitive advantages lie in the heterogeneous firm-specific resources possessed by the firm (rumelt, 1984, montgomery and wernerfelt, 1988). Resources include "all assets, capabilities, organisational processes, firm attributes, culture, information and knowledge which enable the firm to conceive and implement strategies that improve efficiency and effectiveness" (Barney, 1991, p. 101). Resources do not exclusively determine what the firm can do and how well it can do it.

Distinctive organisational capabilities are needed to drive sustainability. (Grant, 1991) further defined distinctive organisational capabilities as the organisation's capacity to perform a range of organisational routines for purposes of delivering products and services to the market in a way that outperforms competitors. Distinctive capabilities are information based knowledge systems. The competitor in ability to duplicate the distinctive capabilities (grant 1991) on which competitive advantage is founded is suggested as a key source of sustainable competitive advantage. Enduring success requires sustainable competitive advantages and implies continuous improvement and innovation (Han et al, 1998; lewis, 1993).

## **REVIEW OF EMPIRICAL LITERATURE**

### **Market Share and Profitability**

The first attempts to establish a relationship between market share and profitability, according to Scherer (1980), were made by industrial organisation economists. The most comprehensive early attempts were studies conducted by Epstein (1934), Crum (1939), and Alexander (1949): all of these studies found a negative relationship between profitability and size. In a subsequent study, Stekler (1963) found that profit ratios declined with size for profitable firms, but profits increased with size for small and medium firms when all firms were included. Hall and Weiss (1967) found a positive relationship while Mancke (1974) and Whittington (1980) found no relationship between size and profitability.

In a much discussed study using the PIMS database Buzzell, Gale and Sultan (1975) found a positive link between market share and profitability. This article showed that, regardless of whether market share is defined by rank or percentage; there is a strong correlation between market share and profit margin. The PIMS data set revealed that a company with a market share of 40 percent will achieve a profit margin twice as high as the competitor 10 percent of the market (Simon 2010). Therefore, the strategic implication of these findings is that firms should strive to achieve a higher market share in order to reap the advantages of higher economies of scale and experience. The higher the relative market share the lower the company's unit costs are and the higher the profit margins. The most important question about the relationship is whether it represents a mere correlation or a true causal relationship (Ailawadi, Farris and Parry 1999).

### **Employee Satisfaction and Enterprise Performance**

Successful organisations depend on the high performance of their employees to meet their objectives. In order to achieve their strategic aims and keep their competitive advantage, their employees must perform at high levels (Lado and Wilson, 1994; Dessler, 2011). Organisational behavior philosophers believe that it is also crucial to have the right employees for the right jobs (Kristof-Brown et al., 2005). The person-job fit is important because it determines whether or not the employee is well-suited for the job (Zheng et al., 2010) and whether the employee will be committed and productive to the organisation (Rousseau and McLean Parks, 1992).

Researches in the past have examined a number of elements that can affect job performance. Jaramilloa et al. (2005) and Al Ahmadi (2009) showed that a crucial element is employees' commitment to their job. There is also a strong connection between being satisfied at their job and their performance (Gu and Chi, 2009). Ng and Feldman (2009) found that education and training was a positive influence on job performance. Other studies by Karatepea et al. (2006) and D'Amato and Zijlstra (2008) found that a person's self-motivation and efficiency has a positive effect on job performance.

### **Innovation Practices and Environmental Sustainability**

The excessive use of natural resources occasioned by rapid economic growth has damaged the environment and raised many environmental concerns (Qi, & G.Y.; Shen, L.Y.; Zeng, S.X.; Jorge, O.J 2010). To conserve energy and reduce carbon emissions, many countries have established environmental regulations; examples include restrictions on chlorofluorocarbons, the sustainable development announcements of the Johannesburg world summit, and restrictions on the use of certain hazardous substances (e.g., electrical and electronic equipment requirements, the European Union's Restriction of Hazardous Substances Directive).

These regulations have not only increased awareness of environmental management; they have also resulted in changes in management practices and competition among companies (Porter, M.E.; van der Linde, C.1995). To conform to the new environmental regulations, companies have had to adopt environmentally friendly practices. They have also had to improve their environmental images and branding in the hope of sustaining and improving their performance and competitive advantage. "Going green" has been one of the important ways that companies have dealt with environmental issues. Methods of acquiring green capabilities and conducting green practices have drawn increased attention and prompted discussion for the last two decades. To facilitate the

adoption of green innovations, companies must consider the important drivers and antecedents in their businesses

These include the concerns of customers (Thøgersen, J.; Zhou, Y.2012) the preferences of business owners, the capabilities of suppliers, government regulations, the technological, organisational, and environmental determinants of green practices. Although previous studies have provided some evidence of the influence of various factors on green practices, to date, few systematic and complete analyses of the antecedents and drivers of green innovation have been performed. “Going green” has been one of the important ways that companies have dealt with environmental issues.

## METHODOLOGY AND DATA

The main hypothesis in this study is that Strategic innovation practices have positive impact on sustainable competitive advantage in the manufacturing sector. The model used is a multiple linear regression that links sustainable competitive variables to Strategic process and distribution innovation practices. Thus, the model is of the form:

$$Y = \beta_{ij}X_{ij} + \beta_0 + \mu_{ij}$$

Where Y represents the dependent variable of sustainable competitive advantage, X represents a vector of Strategic process and distribution innovation practices,  $\beta$ s are parameters,  $\beta_0$  is the constant term, and  $\mu_{ij}$  represents the error term.

Sustainable competitive advantage was measured by High customer base-Market share (CBMS), Employee Satisfaction (ES) and Environmental Sustainability (ENS). The explanatory variables of process and distribution innovation practices were Eco-innovative product production process (EPPP), customer relationship management process innovation (CRMPI) and distribution innovation practices (DIP).

### Model one (1)

High customer base-Market share ( $Y_{CBMS}$ ) with strategic process innovation practices

$$Y_{CBMS(1t)} = \beta_0 + \beta_{11}X_{EPPP(1t)} + \beta_{12}X_{CRMPI(2t)} + \beta_{13}X_{DIP(3t)} + \mu_{1t}$$

### Model two (2)

Employee satisfaction ( $Y_{ES}$ ) with strategic process innovation practices

$$Y_{ES(2t)} = \beta_0 + \beta_{21}X_{EPPP(1t)} + \beta_{22}X_{CRMPI(2t)} + \beta_{23}X_{DIP(3t)} + \mu_{2t}$$

### Model three (3)

Direct Financial impact ( $Y_{DFI}$ ) with strategic process innovation practices

$$Y_{DFI(3t)} = \beta_0 + \beta_{31}X_{EPPP(1t)} + \beta_{32}X_{CRMPI(2t)} + \beta_{33}X_{DIP(3t)} + \mu_{3t}$$

Data were obtained from 20 manufacturing firms in Cameroon. Questionnaires were sent to a total of 800 employees working in the area of strategic process innovation practices. Those workers had knowledge of past and present organizational practices relating to strategic innovation practices. The response rate of the survey was 75% for employees and a final sample of 600 respondents. Companies in the manufacturing sectors that were surveyed were mainly those in Beverages and Nutrition. Answers were provided by respondents on a Likert scale ranging from 1 to 5 categorized

as followed: 5 for strongly agree; 4 for agree; 3 for undecided 2 for disagree and 1 for strongly disagree.

## THE RESULTS AND FINDINGS

The tables below provide descriptive statistics and correlations for the independent and dependent variables

**TABLE 1: DESCRIPTIVE STATISTICS FOR INDEPENDENT VARIABLES**

	N	Minimum	Maximum	Mean	Std. Deviation
ECOINNOVATIVEP (EPPP)	400	13.00	68.00	37.9600	8.10943
CUSTOMERRELAT(CRM PI)	400	8.00	40.00	30.7800	6.98381
DISTRIBUTIONPROCESS (DIP)	400	9.00	43.00	34.6200	6.70432
Valid N (listwise)	400				

**TABLE 2: CORRELATIONS COEFFICIENTS FOR INDEPENDENT VARIABLES**

	(EPPP)	(CRMPI)	(DIP)
ECOINNOVATIVEPRODUCTPRO DUCTIONPRO(EPPP)	1		
CUSTOMERRELATIONROCESS(CR MPI)	.365**	1	
DISTRIBUTIONINNOVATIONPROC E(DIP)	.495**	.642**	1

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

**TABLE 3: RELIABILITY STATISTICS FOR THE INDEPENDENT VARIABLE**

Cronbach's Alpha	N of Items
.740	3

Table 3 Gives the Cronbach's alpha values with factor loadings were greater than or equal to 0.740 thresholds. This showed that all independent variables had acceptable reliabilities.

**TABLE 4: DESCRIPTIVE STATISTICS FOR DEPENDENT VARIABLES**

	N	Minimum	Maximum	Mean	Std. Deviation
CUSTOMERBASEMKTSHARE	400	6.00	25.00	19.5800	3.78410
EMPLOYEESATISFACTION	400	5.00	24.00	18.6200	4.23798
ENVIRONMENTALSUSTAINABILITY	400	20.00	67.00	53.6800	9.82134
Valid N (listwise)	400				

**TABLE 5: CORRELATIONS COEFFICIENTS FOR DEPENDENT VARIABLES**

	CUSTOMERBASEMKTSHARE	EMPLOYEESATISFACTION	ENVIRONMENTALSUSTAINABILITY
CUSTOMERBASEMKTSHARE	1		
EMPLOYEESATISFACTION	.608**	1	
ENVIRONMENTALSUSTAINABILITY	.896**	.824**	1

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

**TABLE 6: CHI SQUARE TEST FOR DEPENDENT VARIABLES**

	CUSTOMERBASEMKTSHARE	EMPLOYEE SATISFACTION	ENVIRONMENTAL SUSTAINABILITY
Chi-Square	195.840 <sup>a</sup>	339.200 <sup>a</sup>	182.400 <sup>b</sup>
df	13	13	25
Asymp. Sig.	.000	.000	.000

**TABLE 7: RELIABILITY STATISTICS FOR THE DEPENDENT VARIABLE**

Cronbach's Alpha	N of Items
.819	3

Table 7 Gives the Cronbach's alpha values with factor loadings were greater than or equal to 0.819 thresholds. This showed that all dependent variables had acceptable reliabilities.



**TABLE 8: ANOVA FOR OVERAL MODEL**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	92865.455	3	30955.152	606.820	<b>.000<sup>b</sup></b>
	Residual	20200.785	396	51.012		
	Total	113066.240	399			

a. Dependent Variable: SUSTAINCOMPETITIVEADVANTAGE

b. Predictors: (Constant), DISTRIBUTIONINNOVATIONPROCESS(DIP), CUSTOMERRELATIONSHIPMANTINNOPROCESS(CRMP), ECOINNOVATIVEPRODUCTPRODUUCTIONPRO(EPPP)

## DISCUSSION

### Model one (1)

High customer base-Market share ( $Y_{CBMS}$ ) with strategic process innovation practices

$$Y_{CBMS(1t)} = \beta_0 + \beta_{11}X_{EPPP(1t)} + \beta_{12}X_{CRMPI(2t)} + \beta_{13}X_{DIP(3t)} + \mu_{1t}$$

**TABLE 9: COEFFICIENTS FOR MODEL 1**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
	(Constant)	<b>1.704</b>	.482			
1	ECOINNOVA (EPPP)	<b>-.093</b>	.015	-.172	-6.141	<b>.000</b>
	CUSTOMER (CRMP)	<b>.075</b>	.012	.160	6.487	<b>.000</b>
	DISTRIBUTION (DIP)	<b>.517</b>	.017	.916	30.501	<b>.000</b>

a. Dependent Variable: CUSTOMERBASEMKTSHARE

From the Table 9 above, the equation becomes;

$$Y_{CBMS(1t)} = 1.704 - 0.093X_{EPPP(1t)} + 0.075X_{CRMPI(2t)} + 0.517X_{DIP(3t)}$$

Customer relationship innovation management process and Distribution innovation practices are all positively correlated to customer base market share. As such when manufacturing companies engage in effective customer relationship management process and distribution innovation practices then the customer's base would increase leading to higher returns. Notwithstanding, the eco innovation product production process was significant but had a negative relationship with market share and as such companies would have to implement better eco innovation product production processes that would be inclusive and desirable by customers.

**Model two (2)****TABLE 10: COEFFICIENTS FOR MODEL 2**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	<b>1.654</b>	.687		2.406	<b>.017</b>
1 ECOINNOVATIVEPRO(EPPP)	<b>-.188</b>	.022	-.309	-8.652	<b>.000</b>
CUSTOMERRELATIO(CRMP)	<b>.360</b>	.016	.688	21.825	<b>.000</b>
DISTRIBUTIONINNOVA(DIP)	<b>.263</b>	.024	.415	10.853	<b>.000</b>

a. Dependent Variable: EMPLOYEESATISFACTION

From the Table 10 above, the equation becomes;

$$Y_{ES(2t)} = 1.654 - 0.188X_{EPPP(1t)} + 0.360X_{CRMPI(2t)} + 0.263X_{DIP(3t)}$$

Customer relationship management process and distribution innovation practices are all positively correlated to customer base market share. As such when manufacturing companies engage in effective customer relationship management process and distribution innovation practices then the customer's base would increase leading to higher returns. Notwithstanding, the eco innovation product production process was significant but had a negative relationship with market share. This signifies that employees are not motivated with respect to eco innovative products and services. It is important that companies engage employees in the process of design and development of eco innovation products and services and also implement better eco innovation product production processes that would be inclusive and desirable by customers.

**Model three (3)****TABLE 11: COEFFICIENTS FOR MODEL 3**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	<b>7.186</b>	1.374		5.231	<b>.000</b>
1 ECOINNOVA (EPPP)	<b>1.114</b>	.048	.760	23.041	<b>.000</b>
CUSTOMERR(CRMP)	<b>.458</b>	.033	.378	13.922	<b>.000</b>
DISTRIBUTION(DIP)	<b>-.308</b>	.043	-.219	-7.103	<b>.000</b>

a. Dependent Variable: ENVIRONMENTALSUSTAINABILITY

From the Table 11 above, the equation becomes;

$$Y_{ENS(2t)} = 7.186 + 1.114X_{EPPP(1t)} + 0.458X_{CRMPI(2t)} - 0.308X_{DIP(3t)}$$

Eco innovation process and customer relationship management process are all positively correlated to environmental sustainability. As such when manufacturing companies engage in Eco innovation process and customer relationship management process then the companies can achieve a sustainable output and environment which serves as a source for resources and marketing tool for companies. Notwithstanding, the distribution innovation process was significant but had a negative

relationship with environmental sustainability as such companies would have to implement better distributive processes that would be inclusive and desirable by customers.

## **IMPLICATION TO RESEARCH AND PRACTICE**

### **IMPROVING STRATEGIC DESIGN OPTIONS FOR PHYSICAL DISTRIBUTION STRATEGY**

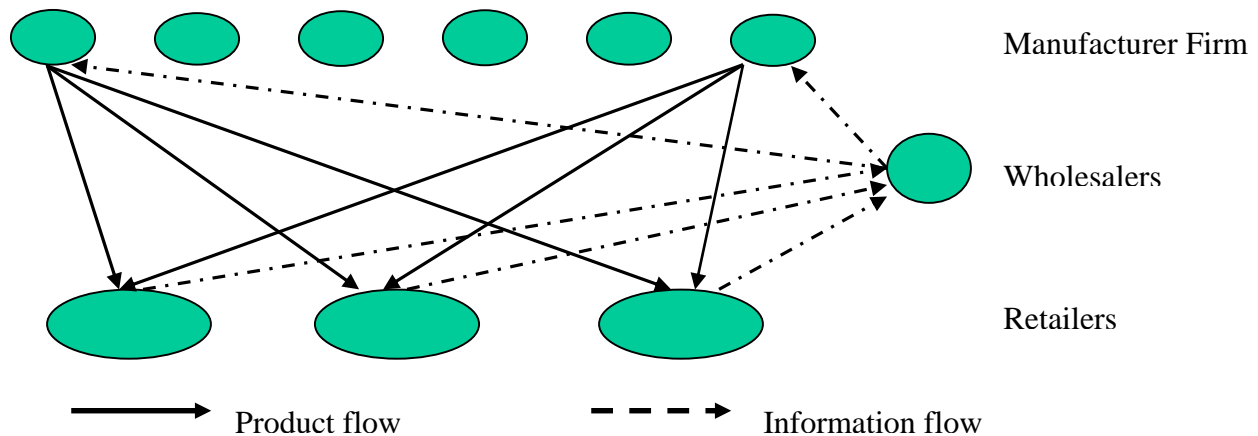
Innovative Physical distribution is the set of activities concerned with efficient movement of finished goods from the end of the production operation to the consumer. Bolt (1987) grouped innovative physical distribution as one of the various environments in which sales management operates. It is paramount in this current intense competitive pressure to reach customers at the right time and through the right channels so as to maintain a competitive position in the market. In this case the manner of distribution is paramount. Distribution from the manufacturer to the end consumer in the case of manufacturing of perishable products is important. When considering distribution of products to get to the final consumers such as supplier to manufacturer or the direct supply from manufacturers to retailers to reach the customers, there are three key decisions to answer in order to design a distribution network:

1. Will product be delivered to the retailers in the customer location or picked up from a preordained site?
2. Will product flow through an intermediary (or intermediate location)?
3. Will product flow directly to the end users without intermediation?

Based on the choices for the two decisions, the researcher could encourage companies to use any or combinations of any of the six distinct distribution network designs to enable them easily reach their customers. There include;

#### **Manufacturer with Direct sales to retailers in the case of low volume items with unpredictable demand**

In this option, products are transported or shipped directly from the manufacturer to the end customer, bypassing the retailer (who takes the order and initiates the delivery request). All inventories are stored at the manufacturer and this prevents wastage from the products expiring. Information flows from the customer, via the retailer, to the manufacturer, while product is sold directly from the manufacturer to customers. In some instances, the manufacturer sells directly to the customer.



**Figure 1: Manufacturer with Direct Sales**

The biggest advantage of this form of distribution for companies is the ability to centralize inventories at the manufacturer. A manufacturer can accumulate demand and provide a high level of product availability with lower levels of inventory than individual retailers. The benefits from centralization are highest for high value, low volume items with unpredictable demand. Manufacturer and direct sales also offers the manufacturer the opportunity to further lower inventories by postponing customization until after the customer order has been placed.

Transportation costs in this case are high because the average outbound distance to the end consumer is large. Companies can be efficient in distributing with this method by putting in place a good information infrastructure so that the retailer can provide product availability information to the customer even though the inventory is located at the manufacturer. Customer relationship management is key with this method and there is a desired need for a database of customer's information. The customer should also have visibility into order processing at the manufacturer even though the order is placed with the retailer. A good system of information is needed as the response times tend to be large when direct sales was used because the order has to be transmitted from the retailer to the manufacturer.

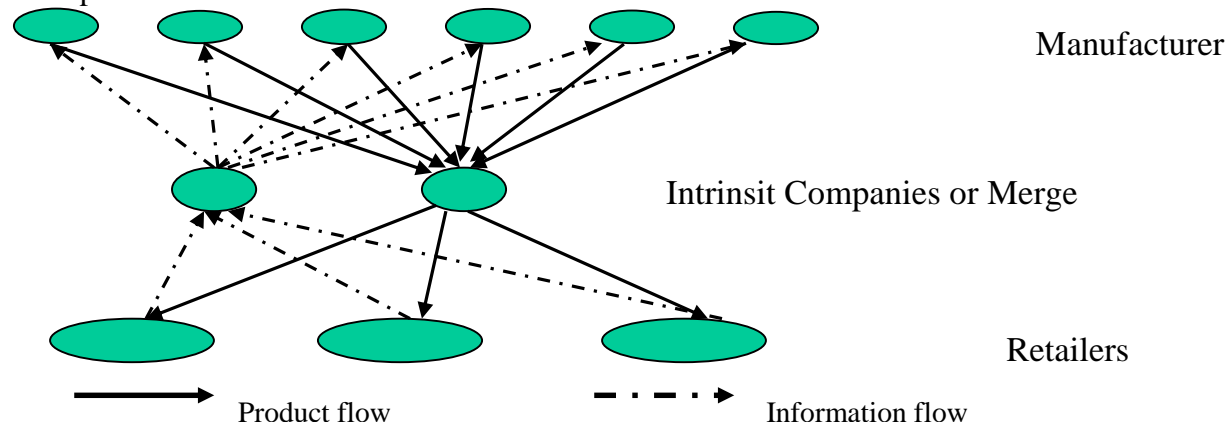
The researcher could conclude that manufacturers with direct sales was best suited for a large variety of low demand, high value items where customers are willing to wait for delivery and accept several partial deliveries.

### **Manufacturers with Direct sales and In-Transit Merge**

Unlike direct sales to retailers where each product in the order is sent directly from each manufacturer to the retailers to reach customer, in-transit merge combines pieces of the order coming from different locations so that the customer gets a single delivery. Information and product flows for the in-transit merge network are as shown in Figure 2. This method permit manufacturers who sell complimentary products like the case of pastry products. This permits the manufacturer to merge the products together before making a single delivery to the customer. This increases diversity and one stop shopping.

As with manufacturer with direct sales, the ability to aggregate inventories and postpone product customization is a significant advantage of in-transit merge. This approach has the greatest benefits for products with high value whose demand is hard to forecast. An order from a company with two complementary products for example will require three manufacturers but needs only one delivery to the customer compared to three that would be required with drop shipping. Fewer deliveries save transportation cost and simplify receiving. This approach will reduce facility and processing costs for the manufacturer and the retailer. Even though this approach may increase customer base due to diversity and reduced cost, the manufacturer performing the in-transit merge has higher facility costs because of the merge capability required. Receiving costs at the customer are lower because a single delivery is received. An advanced information infrastructure is needed to allow the in-transit merge. The investment in information infrastructure will be higher than for direct sales to retailers. Response times may be marginally higher than in direct sales to retailers because of the need to perform the merge. Customer experience is likely to be better than direct sales because the customer receives only one delivery for their order instead of many partial deliveries.

Other advantages of in-transit merge over direct sales to customers are the lower transportation cost and improved customer experience. The major disadvantage is the additional effort during the merge itself. Given its performance characteristics, manufacturer sales with in-transit merge is best suited for low to medium demand, high value items where the retailer is sourcing from a limited number of manufacturers. Compared to drop shipping, in-transit merge requires a higher volume from each manufacturer to be effective. If there are too many sources, in-transit merge may be difficult to coordinate and implement but can offer better customer experience. In-transit merge is best implemented if there are few sourcing locations and each customer order has products from multiple locations.

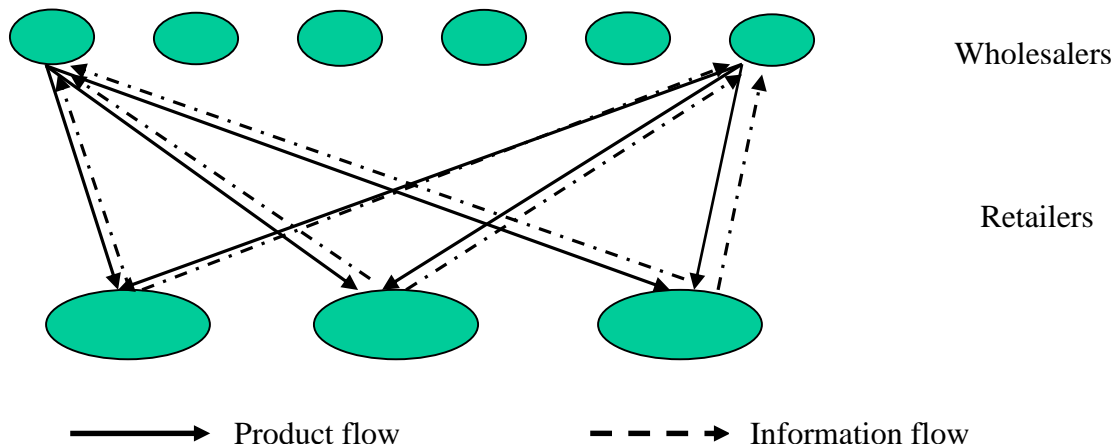


**Figure 2: Direct sales to retailers with intrinsic merge**

### Distributor Storage and sales

Under this option, inventory is not held by manufacturers at the factories but is held by distributors / wholesales in intermediate warehouses and package carriers are used to transport products from the intermediate location to the final customer or retailers. Information and product flows when using distributor storage with delivery by a package carrier are shown in below in figure 3. This

distribution with storage will require a higher level of inventory because the distributor / wholesalers warehouse aggregates demand uncertainty to a lower level than the manufacturer.



**Figure 3 Distributor Storage and sales**

### **Distributor Storage with Last Mile Delivery**

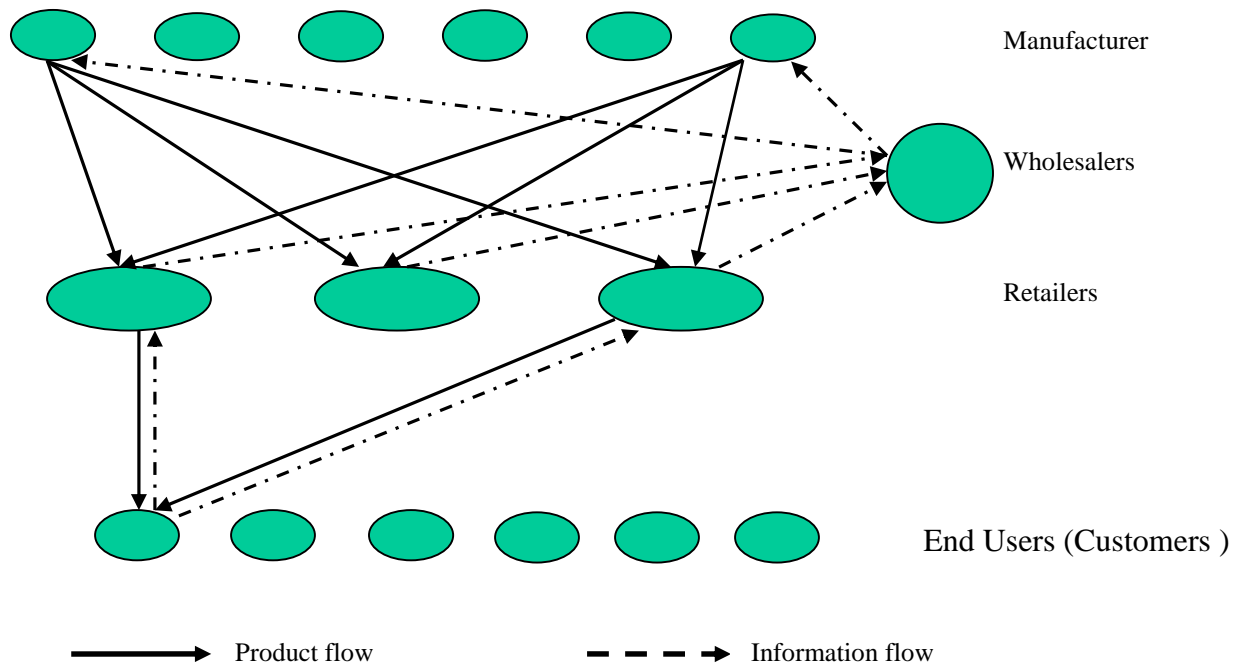
Last mile delivery refers to the distributor / retailer delivering the product to the customer's home instead of using Distributor storage and sales. Unlike distributor storage and sales, last mile delivery requires the distributor warehouse to be much closer to the customer, increasing the number of warehouses required. The warehouse storage with last mile delivery network is as shown in Figure 4 for manufactures wishing to use the Distributor storage with last mile delivery, and then they require higher levels of inventory than all options other than retail stores, because it has a lower level of aggregation.

Distributor storage with last mile delivery requires higher levels of inventory than all options other than retail stores, because it has a lower level of aggregation. From an inventory perspective, warehouse storage with last mile delivery is suitable for relatively fast moving items where disaggregation does not lead to a significant increase of inventory. Generally, products in food and beverage manufacturing firms or Staple items in the grocery industry fit this description.

Transportation costs are highest using last mile delivery. Last mile delivery may be somewhat cheaper in dense cities. Transportation costs may also be justifiable for bulky products where the customer is willing to pay for home delivery. Home delivery for water and large bags of rice has proved quite successful in many countries, where the high population density has helped decrease delivery costs.

Processing costs, however, are much higher than a network of retail stores because all customer participation is eliminated.

The information infrastructure with last mile delivery is similar to distributor storage with package carrier delivery and it requires, however, the additional capability of scheduling deliveries.

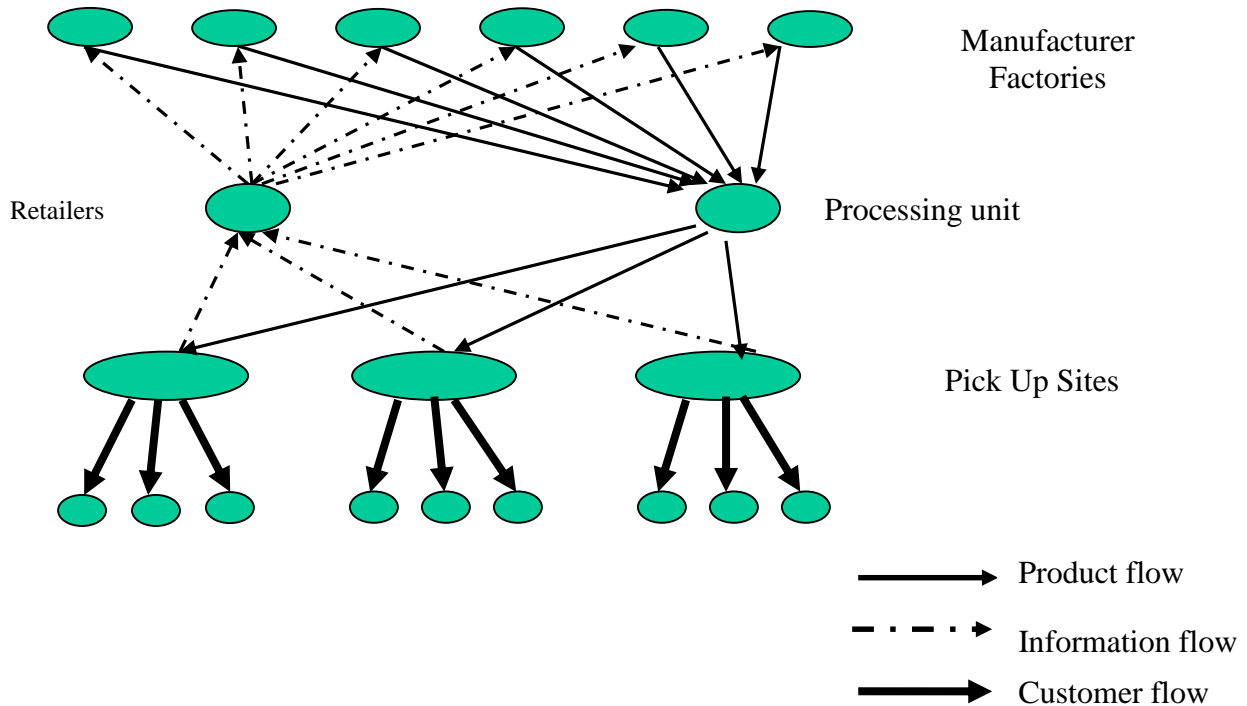


**Figure 4: Distributor Storage with Last Mile Delivery**

#### **Manufacturer or Distributor Storage with Consumer Pickup**

In this approach, inventory is stored at the manufacturer or distributor warehouse but customers place their orders online or on the phone and then come to designated pickup points to collect their orders. Orders are sent from the storage site to the pickup points as needed. This approach can also allow customers to pick up online orders at a designated store. This approach enables companies to build solid bonds with their customers, listen to customer complaints and easily understand market changes.

Even though in this case, Facility costs are high if new pickup sites have to be built but a solution to use existing sites will lower the additional facility costs. Manufactures wishing to use this approach should be ready to welcome processing costs at the pickup site are high because each order must be matched with a specific customer when they arrive. Creating this capability can increase processing costs significantly if appropriate storage and information systems are not provided.



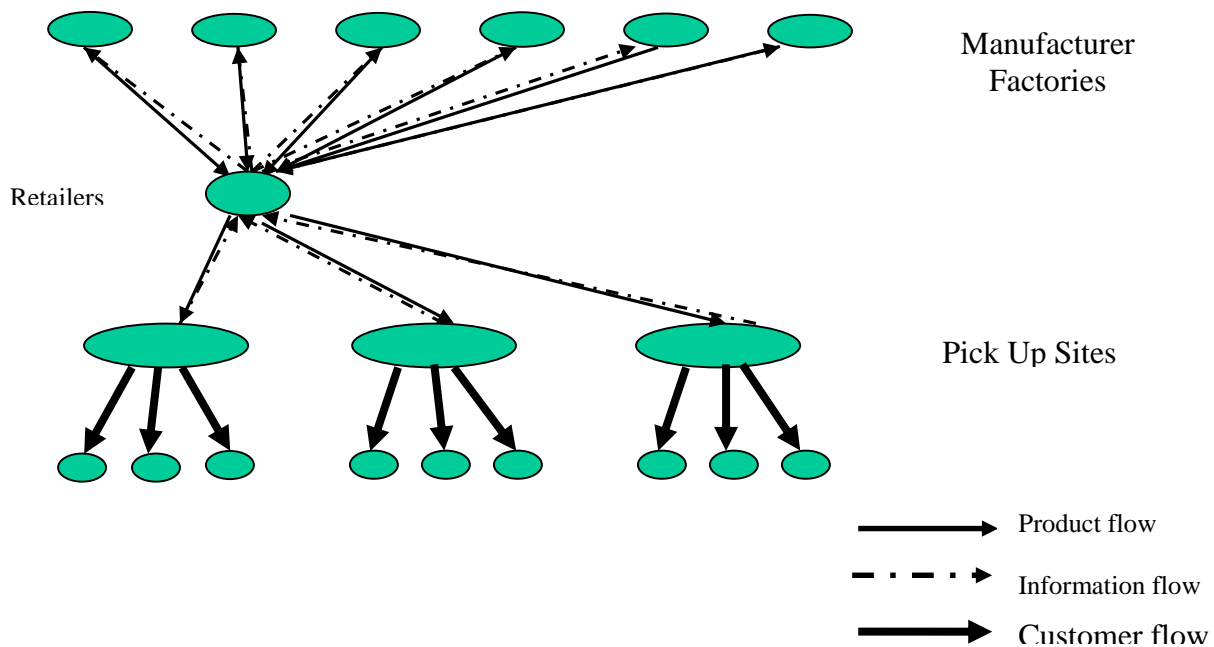
**Figure 5: Manufacturer or Distributor Storage with Consumer Pickup**

A significant information infrastructure such as ERP is needed to provide visibility of the order until the customer picks it up. Very good coordination is needed between the retailer, the storage location, and the pickup location. In some cases, this option can be considered more convenient because it does not require the customer to be at home at the time of delivery. Order visibility is extremely important for customer pickups. . For customers, returning a product will be easy because they have a physical location to bring it to. Overall, return ability is fairly good using this option. The main advantage of a network with consumer pickup sites is that it can lower delivery cost, thus expanding the set of products sold as well as customers served online. The customer must be informed when the order has arrived and the order should be easily identified once the customer arrives to pick it up. Such a system can permit the customer to track the delivery process of its products. With the use of ERP system, this approach is easy to implement because it requires integration of several stages in the supply chain.

**Retail Storage with Customer Pickup**

In this option, inventory is stored locally at retail stores. Customers either walk into the retail store or place an order online or on the phone, and pick it up at the retail store. Most of companies that offer multiple options of order placement uses part of the facility as a grocery store and part of the facility as an online fulfillment center. Customers can walk into the store or order online.





**Figure 6: Retail Storage with Customer Pickup**

These practices would increase the awareness level of the businesses by assisting companies in gathering relevant information about the needs and preferences of their target customers in a timely and profitable manner.

### **IMPROVING THE CUSTOMER RELATIONSHIP MANAGEMENT PROCESS**

This process also requires that companies should tailor Product and Service Agreements (PSA) to meet the needs of key accounts and segments of other customers. Teams work with key accounts is implemented to improve processes, and eliminate demand variability and non-value-added activities. . Customer relationship management process can be achieved through the strategic process and the operational processes outlined below.

#### **The Strategic Process**

At the strategic level, the customer relationship management process provides the framework for managing relationships with customers, and is comprised of five sub processes.

#### **Stage One: Review Corporate Strategies**

In this first stage, the process team reviews the corporate strategies to identify customer segments that are key to the organisation's success now and in the future.

#### **Stage Two: Identify Criteria for Identifying Customers**

In this second stage, the team identifies the criteria for categorizing customers and provides guidelines for determining which customers qualify for tailored PSAs and which customers will be grouped into segments and offered a standard PSA that is developed to provide value to the

segment. Potential criteria include: profitability, growth potential, competitive positioning issues, access to market knowledge, market share goals, margin levels, level of technology, resources and capabilities, compatibility of strategies, and channel of distribution. As part of this sub process, the team develops the firm's strategy for dealing with segments of customers who do not qualify for individually tailored PSAs.

### **Third Stage: Develops Guidelines for the Degree of Differentiation in the PSA**

In the third sub-process, the company through its team develops guidelines for the degree of differentiation in the PSA. This involves developing the differentiation alternatives and considering the revenue and cost implications of each. The output is the degree of customization that can be offered to customers. The goal is to offer PSAs that enhance the profitability of the firm and the customers. In the fourth stage, it consists to find and understand the differentiation opportunities, this sub-process will interface with all of the other processes.

### **Stage Five: Develops the Framework of Metrics**

The companies in the fifth stage would have to Develops the framework of metrics which involves outlining the metrics of interest and relating them to the customer's impact on the firm's profitability as well as the firm's impact on the customer's profitability. The customer relationship management process has the responsibility for assuring that the metrics used to measure all of the other processes are not conflicting. Management needs to insure that all internal and external measures are driving consistent and appropriate behavior.

### **Stage Six: Develops the Guidelines for Sharing Process Improvement Benefits with Customers Innovatively**

In the final sub-process, the guidelines for sharing process improvement benefits with customers should be developed innovatively. The goal is to make these process improvements win-win solutions for both the firm and the customer so that it can guarantee long term benefits. The customers in this case may include the end users to make sure that they have the right quality and characteristics of products but also the other buyers who are intermediaries.

In summary, the objective of customer relationship management at the strategic level is to identify customer segments, provide criteria for categorizing customers, provide customer teams with guidelines for customizing the product and service offering, develop a framework for metrics, and provide guidelines for the sharing of process improvement benefits with the customers.

## **CONCLUSION**

The implementation of strategic process and distribution innovation practices leads to high market share and employee satisfaction. It is paramount that companies should implement innovative strategies in the processes of product conception to production as well as adapted distribution strategies to satisfy their customers, employees and achieve sustainable growth. Some companies do not actually understand what sustainability and Eco-innovative product production process means. They thus need expert advice on the way forward with these strategies so as to realize sustainable competitive advantage.

Companies should try to have loyal customers who are happy because they are listened to and because their needs are met through product process innovation and distribution innovation practices. It is time for companies to recognise the need for strategic innovation practices in their business processes, products fitness, management practices, distribution practice as competition increases and as customers become interconnected and desire diverse products and services. We can also conclude from analysis that eco innovation is the driving force for sustainable growth. It time for companies to integrate social and environmental concerns into business practices, products, and services because this serves as way sustain resources, protect the environment and outperform competitor. Consumers are also becoming aware of the environmental challenges and so companies that engage in eco innovation can win over customers and increase market share. Companies would have to also ;Allocate dedicated resources and formal responsibilities for each stage of the strategic innovation process, distribution and ensure that the necessary infrastructure, skills, and expertise are made available, either within the organisation or through collaboration with external bodies.

## **FUTURE RESEARCH**

Creating a sustaining competitive advantage is directly aimed at the organisational financial performance. Strategic innovation creates competitive advantage by creating value disregarding the question of existing markets or new markets. However, creating competitive advantage through the strategic innovation requires substantial organisational resources. Future research should focus on the impact of organizational resources on sustainable competitive advantage.

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