# PACKAGING INNOVATION AND SALES TURNOVER IN SOFT DRINKS INDUSTRIES IN UGANDA;

A case of Harris International (U) Ltd.

BY

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# A DISSERTATION SUBMITTED TO THE GRADUATE SCHOOLIN PARTIAL FULLFILLMENT FOR THE REQUIREMENT OF THE A WARD OF MASTER OF SCIENCE IN SUPPLY CHAIN MANAGEMENT OF KYAMBOGO UNIVERSITY

DECEMBER, 2015

#### **DECLARATION**

I Kawooya Bashir declare that this dissertation is my original work as far as we aware and it has never been submitted to any institution or University of higher learning for the award of a Masters or any other academic award.

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#### SUPERVISOR'S APPROVAL

We Dr Ndandiko Charles and Mr Kalinzi Charles certify that a research report titled

"Packaging Innovation and sales turnover in soft drinks industries in Uganda"

A case of Harris International (U) Ltd has been done under our supervision and is ready for submission to the Graduate School of Kyambogo University

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#### **DEDICATION**

I dedicate this dissertation to my beloved family most especially to my parents, my brothers, my sisters, aunties and friends. This is to let you know how much I appreciate your support in all aspects of life, may the Almighty God bless you always. It also goes to all Employees of Muteesa I Royal University who have spared time for me to be at the university regardless of the busy schedule attached to me. God Bless you.

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#### LIST OF ACRONYMS AND ABBREVIATIONS

SPSS: Statistical Package for Social Scientists

CVI : Content validity Index

CSD: Carbonated Soft Drinks

SMEs: Small Medium Enterprises

NBS: National Bureau of Standards

ISO : International Standards Organization

V AT: Value Added Tax

NTC: National Teachers College

ITC: International Trade Centre

CARGR: Compound Annual Growth Rate

#### **ABSTRACT**

The major purpose of the study was to determine the relationship between Packaging Innovation and Sales turnover of Harris international (U) ltd. This study was based on research objectives which were stated as, to determine the relationship between packaging innovation and revenues at Harris International (U) Limited, to assess the relationship between packaging innovation and total units of stock sold at Harris International (U) Limited, to determine the ways of improving and sustaining modern packaging innovation to improve sales turnover at Harris International (U) Ltd. The study used a cross-sectional research design with both quantitative and qualitative approaches. A correlation analysis was used to test the relationship between Packaging Innovation and Sales turnover. A total of 106 questionnaires were distributed to Employee of Harris international (U) ltd under various departments but by the end of the exercise only 100 questionnaires were collected posing a response rate of 94.3% and non-response of 5.6%. Data analysis involved the use of both descriptive and inferential statistics in the Statistical Package for Social Scientists (SPSS). Here the researcher used questionnaires and interviews to generate data. A strong positive relationship between Packaging Innovation and revenues of Harris international was witnessed at r=0.703 which was significant at 0.000<0.05. The adjusted R square value of 0.491 was also witnessed; that packaging innovation contributes 49.1 % in influencing revenues of Harris International (U) Limited. This meant that 50.9% of revenues of Harris International (U) Limited are influenced by other factors. Also a very strong positive relationship between Packaging Innovation and Total units of goods sold by Harris international was realized at r=0.802 which was significant at 0.000<0.05. The adjusted R square value of 0.646 was found out this meant that packaging innovation contributes 64.2 % in influencing total units of goods sold by Harris International (U) Limited and 35.8% of revenues of Harris International (U) Limited is influenced by other factors. The study recommends that Harris international (U) ltd should; monitor and analyze the market trends and developments globally, regionally and nationally, and understand supply-side and demand trends, detailed segmentation of international and local products, and historic volumes in units and filled volumes.

#### CHAPTER ONE

#### INTRODUCTION

#### 1.0. Introduction

In this Chapter, the Background to the Study, Statement of the Problem, Objectives of the Study, research questions, and Scope of the Study, Significance of the Study and Study limitations were covered.

#### 1.1. Background to the Study

According to Kottler, (2003) Packaging is an important part of the Branding process as it plays a key role in communicating the image and the role identity of the company. He also stated that, the cardinal objective of any company is profit maximization which is often achieved through the sales of its products. In this study, we examined how packaging Innovation could be used as an instrument through which the increase in sales volume in a company is accomplished. Packaging is therefore, used for the general operation for putting goods into containers for transportation, shipment in storage. Therefore, according to him, packaging material products are used for the containment, protection, hard delivery and presentation of goods.

Soroka, (2002) states that, packaging at first was being done using the natural materials available at the time, that is to say wine skins, baskets, wooden boxes, ceramic amphorage, wooden barrels, woven bags to mention but a few. He also continued that, processed materials were being used to form packages as they were developed for example; early glass and bronze. Packaging innovation is an important part of the Branding process as it plays a key role in communicating the image and the role identity of the company.

Packaging and packaging design and innovation have therefore come increasingly to be seen by firms as an effective way of differentiating product offerings from those of competitors. Retie etal Brewer, (2000)

#### 1.1.1. Historical perspective

Historically, packaging advancements in the early 20<sup>th</sup> century included Bakelite closures on bottles, transparent cellophane over wraps and panel cartons, and this increased processing efficiency and improved food safety; however, due to the development of various additional materials such as aluminum and several types of plastics, they were incorporated or rather added into packages to improve performance and functionality. In plant recycling has long been common for production of packaging materials alongside post-consumer recycling of aluminum and paper based products so as to enhance cost effectiveness and also to minimize wastes. (Incpen, 2013). Due to intensive competition; firms need to develop innovative solutions in order to remain competitive and serve in the long term; entrepreneurial activities and creative marketing contributing to such incentives.

In the last few years, there have been a number of contributions to the academic design literature by studies on packaging innovation or other issues within the design innovation framework (i.e. Heskett, 1997; Chayutsahakij, and Poggenpohl, 2002). Nevertheless, most of the time, packaging innovation has been referred to as a synonym for terms such as design, innovation, innovative ''design, etc. The approach in this study was to define packaging innovation aims at building a design-oriented framework on basis of the theory of innovation.

#### 1.1.2 Conceptual Perspective

The term 'innovation' has its roots from the Latin word 'Novus', which means 'new' and is derived into the verb 'innovate' that covers the meaning 'to make new'. Therefore, in the

broadest context, to innovate is to begin or introduce (something new) for the first time', and 'innovation' has the meaning of 'the act of introducing something new' (The American Heritage Dictionary, 2000).

Leonard and Swap (1999) study 'innovation' in connection with 'creativity.' Innovation is the end result of a creative activity. Within this framework, they define 'creativity' as "...a process of developing and expressing novel ideas that are likely to be useful" (Leonard and Swap, 1999). Such a definition emphasizes not only the new, novel and unusual, but also 'useful' characteristics of the 'creative activity, 'which leads to the potential for utility. From this perspective, as the end result of the creative process, "innovation is the embodiment, combination, and/or synthesis of knowledge in novel, relevant, valued new product, processes or services" (Leonard and Swap, 1999).

Most of these innovations are centered on providing convenience for on-the-go consumption. The Global Soft Drinks Market is expected to post a CAGR of 3.92% in terms of revenue from 2014-2018. He also states that, "A leading soft drink manufacturer in the UK has launched a carbonated soft drink that comes in a plastic aerosol format. The 'nitro-fueled' aerosol technology provides a foamy blast of orange and a distinct drinking experience targeted at the teen market," said Faisal Ghaus, vice president of TechNavio. "Vendors in the market often struggle with brand visibility and uniqueness in such an oversaturated market. Differentiating products through creative packaging materials and accessorized packaging is one way to help push products and gain a wider consumer base." Additionally, vendors in this segment are said to be increasingly looking towards alternatives to traditional soft drinks as a way to capture more health-conscious consumers. 'Natural' soft drinks, drinks sweetened with stevia, and coconut

water are just a few alternatives that are being promoted by major vendors such as Nestlé, PepsiCo and Coca-Cola.

Increased competition is forcing brand managers of consumer goods to alter the portfolio of packages they offer (Elliot, 1993). Although packaging styles (paper, plastic, and polythene bags), needs and strategies differ among companies, there are three common packaging considerations that are becoming essential to a positive retail experience for consumers, distributors and manufacturers alike.

For purposes of this study, the term innovation was used to refer to coming up with something new and putting it on the market so as to have its useful applicability.

On the other hand, sales turnover was used to refer to the total amount of sales revenue obtained from the total units sold by a company.

#### 1.1.3 Contextual perspective

Harris international(u) Ltd is a manufacturing organization established in 2005 currently located on Bombo road, Kawempe Division Harris international owns about 7 acres of land and has sofa invested about Ugx 55 billion, 33, of which in machinery. It employs 300 permanent (skilled and semi-skilled) workers and about 200 casual laborers who are hired seasonally. Harris is engaged in manufacture of five basic products, all certified by UNBS and processes certified by ISO, under the brand name RIHAM mineral water, soda, biscuits, Non-carbonated drinks (energy drinks) and juice which are in various colours such as green, yellow maroon, blue, etc. different designs and sizes that's to say small, medium, and big sizes

Harris International (U) Ltd has done a lot in trying to come up with packaging innovation which is a continuous process being conducted every year so as to attract more customer and improve

on sales turnover and this can be evidenced in the collaboration between Harris International (U) ltd and Sidel in trying to help it to come up with preformed shapes in addition to creating unique bottle designs to differentiate the company's brand. Modern machines have been improvised to improve on packaging standards, plastic bottles and many others. Also the prices of the products keep on changing from time to time season to season due to various factors such as inflation, competition, and many other economic factors. So prices have been up and down. However, the sales turnover is still low, the profits are also still low, and lower demand levels for the company's products on market. However, in spite of all the efforts and innovations done by Harris International (U) ltd, it has not yet realized bigger positive effect on sales turnover due to low revenue, total units of stock sold and low demand levels for the company's products on market. Sales Manager Harris International (U) Ltd (2014) said that, there is a shortfall in the total sales revenue compared to Overall expectation in 2011-2014 of 22.23billions. In 2011 sales turnover was 20.46billions, 2012 it decreased to 20.21billions, 2013 it was 20.1billions, 2014 it came to 19.06 billions.

Table 1.1 Showing Harris International (U) Ltd's Sales turnover for 2011-2014

Years	Actual 2011	Actual 2012	Actual 2013	Actual 2014
	*			
Sales turnover	20.46	20.21Billions	20.1 Billions	19.06 Billions
Overall expectation 2011-2014 was 22.23 billions	Billions			
Quantity(carton of sodas at12000)	1705000	1684166.7	1675000	1588333.3

Source: Sales Manager Harris International (U) Ltd

#### 1.2. Statement of the Problem

Harris International (U) Ltd has come up with new product innovation as evidenced in its collaboration with Sidel in order to come up with preformed shapes and creating unique bottle designs, attractive colours affordable sizes to customers so as to differentiate the company's brand. Modern machines have been improvised to improve on packaging standards, plastic bottles with different colours, design and size. These are expected to raise the sales volumes. However, in spite of all the efforts and innovations done by Harris International (U) ltd, it has not yet realized bigger positive effect on sales turnover due to low revenue, total units of stock sold and low demand levels for the company's products on market. Sales Manager Harris International (U) Ltd said that, there is a decline in the total sales revenue compared to Overall expectation in 2011-2014 of 22.23billions. In 2011 sales turnover was 20.46billions, 2012 it decreased to 20.21billions, 2013 it was 20.1billions, 2014 it came to 19.06billions. There is a question as to why the company is experiencing declining sales. Therefore, the researcher wants to bridge this gap by examining the effects of packaging innovation on sales turnover in Harris International (U) ltd.

#### 1.3. Purpose of the Study

The purpose of the study was to determine the relationship between packaging innovation and the sales turnover of Harris international (U) ltd

#### 1.4. Objectives of the Study

- (i) To determine the relationship between packaging innovation and revenues at Harris International (U) Limited.
- (ii) To assess the relationship between packaging innovation and total units of stock sold at Harris International (U) Limited.

(iii) To determine the ways of improving and sustaining modern packaging innovation to improve sales turnover at Harris International (U) Ltd.

#### 1.5. Research Question to the Study

- (i) What is the relationship between packaging innovation and revenues of at Harris International(U) Limited?
- (ii) What is the relationship between packaging innovation and total units of stock sold at Harris International (U) Limited?
- (iii) What are the ways of improving and sustaining modern packaging innovation to improve sales turnover at Harris International (U) Ltd?

#### 1.6. Scope of the Study

#### 1.6.1 Content Scope

The study aimed at examining the relationship between packaging innovation and sales turnover at Harris International (U) Ltd. Package innovation constitutes; colour, size and design of the packages, while sale turnover was dimensioned by total units of stock sold and revenues.

#### 1.6.2 Geographical Scope of the Study

The study was conducted at Harris International (U) Limited located on Bombo road Kawempe Division.

#### 1.6.3 Time Scope of the Study

The study basically covered information from 2011 to 2014. This period was given a clear overview on packaging innovation and how it has affected sales turnover in terms of total units of stock sold and revenues.

#### 1.7 Significance of the Study

The study will be of help to Harris International (U) Ltd in knowing how effective packaging is in regards to the various sales activities.

The research will be of great significance to the future researchers by analyzing what has already been recorded and in finding the gaps that exist for further research

The study will also help guide policy makers, training institutions and students in matters pertaining the impacts of packaging innovation on sales turnover since it will act as reference.

The study will be helpful to students, lecturers and tutors of Diploma, under graduate and postgraduate courses in the fields of logistics sales and marketing for areas of further research.

#### **Conceptual Framework**

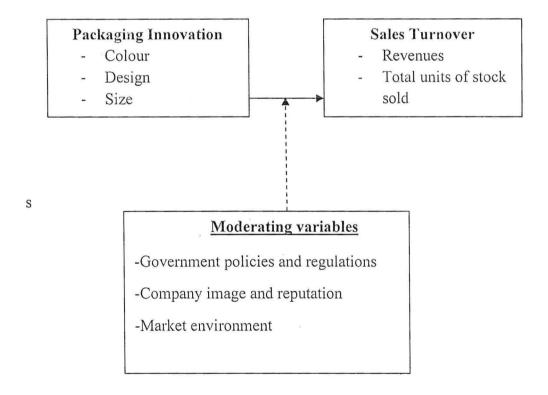


Figure 1.1 Conceptual Framework

The independent variable is packaging innovation basing on colour, design, size and sales turnover in this case were based on total units of stock sold, and revenue and also moderating variables such as government policies and regulations, company image and reputation, market environment are expected to affect sales turnover.

Independent variables packaging innovation is defined according to; color, design and size as shown below

#### Colour

The property possessed by an object of producing different sensations on the eye as a result of the way the object reflects or emits light. Color is the best way to reflect and enhance a unified image and branding of product as it is such a visual medium.

#### Design

A plan or drawing produced to show the look and function or workings of a building, garment, or other object before it is built or made. It involves Purpose, planning, or intention that exists or is thought to exist behind an action, fact, or material object,

#### Size

The relative extent of something; a thing's overall dimensions or magnitude; how big something is. Size involves each of the classes, typically numbered, into which garments or other articles are divided according to how large they are. The physical dimensions, proportions, magnitude, or extent of an object. For example ka mini,small, medium and big sizes

Independent variables sales turnover will be defined according to; total unit of goods sold and revenue.

Revenue is a total amount of money received by the company for goods sold or services provided during a certain period. It is the money that is made by or paid to a business or organization sales revenues. Total units of goods sold refer to the carrying value of goods sold during a particular period.

#### CHAPTER TWO

#### LITERATURE REVIEW

#### 2.0: Introduction

This chapter consists of the theoretical review of the study and review of related literature on packaging innovation and sales turnover in soft drinks industry. Basically the literature focuses mainly on relationship between packaging innovation and sales turnover, packaging innovation and total units of stock sold, ways of improving and sustaining modern packaging innovation on sales turnover as put forward by different scholars in general terms and summary of literature

#### 2.1 Theoretical Review

#### 2.1.1 Innovation Theory

Schumpeter, (1934) in the first half of the 20<sup>th</sup> century, who first mentioned 'innovation' as "keeping the capitalist engine in motion." Schumpeter suggested innovations to be imperative for economic growth, commercial profit, and thus, public wealth. Schumpeter's theory has later been developed by neo-Schumpeterian economists such as Freeman and Dosi. Recently, contributions from diverse disciplines including Design, Management, and Marketing have developed the modern theory of innovation (Smith, 1776; Marshall, 1930; Schumpeter, 1934, 1939, 1942, 1954b; Meier and Baldwin, 1957; Freeman, 1982, 1990; Elliot, 1985; Sylwestor, 2000).

According to Schumpeter (1942), innovations are the driving forces leading a capitalist economy run. Heposes "the fundamental impulse that sets and keeps the capitalist engine in motion comes from new consumer goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates" (Schumpeter, 1942).

#### 2.1.2 Theory of Economic Development

In Schumpeter's 'Theory of Economic Development', innovations stimulate new innovations, constituting 'clusters of innovations,' open new profitable opportunities, obtain profit and growth in the economy, and finally result with an enhancement in the standard of life of the public. Change the way a product is perceived or a process is held in an industry (Tidd et al., 2001).

#### 2.2.1 Packaging Innovations

Barbara McManus, (2015) states that total unit volume sales in soft drinks packaging fell very marginally in 2014 to reach 48.7 billion units. PET bottles led with a 42% share of total unit volume sales, followed by metal beverage cans with a 30% share. The Soft Drinks Packaging in Japan report offers insight into key trends and developments driving packaging across the category. The report also examines trends and prospect for various pack types and closures: metal packaging, rigid plastic, glass, liquid cartons, paper-based containers; flexible packaging.

Stephen Howell, (2009) states that despite the current challenging market conditions, brands are still looking for innovative ways in which to offer consumers a new drinking experience. In response, he said that, different companies focus on presenting their customers with new beverage packaging options that not only offer superior protection for products, but can also be used as an adaptable and versatile instrument for brand managers. He continued that, since 1935, the beverage has evolved into an iconic pack choice for billions of consumer's worldwide, strengthening brands and adding to the sensory enjoyment of the drinking experience for several generations. Therefore, he concludes that companies is now taking metal packaging to the next level with is vision to create and develop a market for a new beverage pack format in the form of a lightweight aluminum bottle and plastic bottles.

#### 2.2.2 Packaging Innovation in form of Colour

Jasper, 2012) stated that soft drinks are enormously popular beverages consisting primarily of carbonated water, sugar, and flavorings. Nearly 200 nations enjoy the sweet, sparkling soda with an annual consumption of more than 34 billion gallons. Soft drinks rank as America's favorite beverage segment, representing 25% of the total beverage market. The roots of soft drinks extend to ancient times. New brand flavors of soft drinks constantly appeared on the market packed in different colours. Soft drink manufacturers have been quick to respond to consumer preferences. In 1962 diet colours were introduced in response to the fashion of thinness for women. In the 1980s the growing health consciousness of the country led to the creation of caffeine-free and low-sodium soft drinks. The 1990s ushered in clear colas that were colorless, caffeine-free, and preservative-free.

#### 2.2.2 Packaging Innovation in form of size

Jon, (2012) asserted that, innovation in sizing amongst less dynamic beverages is evident; to meet the different consumer portion and pocket needs and drive onward packaging growth for brand owners. Coca-Cola's 300ml bottle, launched in 2011 for the Chinese market, succeeds on a number of levels; retailing at a unit price of RMB3 makes it an affordably-priced format to reach the mass consumer base and as a smaller pack size, makes it an easy-to-carry portable pack solution, ideal for on-the-go consumption amongst the fast-growing number of urban consumers in China.

Alison Arden, (2012) stated that, in terms of the most prospective country opportunities, Asia Pacific holds significant potential for development. The region will account for 73% of global retail packaging volume growth between 2012 and 2016, very much spearheaded by the Chinese market. Rising incomes and the ongoing Chinese population shift from rural areas to towns and

cities are creating an ever greater propensity among consumers to buy branded and packaged goods. India is another Asian hot spot for packagers with bottled water the leading soft drinks category for packaging growth, further indication of the global wellness trend that is also very much at play in fast-developing Asia Pacific countries.

#### 2.2.3 Packaging Innovation in form of Design In Soft Drinks

Deskon (2015) stated that, in Soft drinks brand Zeo has unveiled a new packaging design and new packaging innovations, which it will use to ease a shift in focus from premium carbonated soft drink consumers to light-to-medium carbonated soft drink consumers. Available in 275ml and 750ml formats, the new Zeo collection consists of peach and grapefruit; zesty lime; blood orange and citrus; mixed berry; cloudy lemonade; and spiced cola varieties. Design packaging innovations through our ability to design manufacturing efficiencies it insures a seamless transition from concept development sketches, Solid works renders, all the way to manufactured retail and product packaging by having designed many of the manufacturing processes.

Idris Mootee (2010) stated that, soft drinks makers have been pushing for innovation to create new categories expand new markets or help push up prices, many are betting on increased demand for adult targeted higher quality soft drink. He stated that, exotic fruits anti-toxicant soft drinks such as aronia, yumberry and maqui berry to become the next acai berry have emerged which can really make soft drinks consumption experiential. He also mentioned that another design in terms of exotic spicy soft drinks and faith-based soft drinks because faith brings people together, politics draw them apart. So the idea of the Peace Cola can be very inspirational.

#### 2.3 Sales Turnover

Marquis Codjia (2015), Sales turnover is the company's total revenue, the invoice, cash payments and other revenues. Sales turnover represents the value of goods and services provided

to customers during a specified time period - usually one year. He continues that, the term is often just referred to as sales or net sales, which mean revenues without VAT, so sales turnover is usually expressed in monetary terms but can also be in total units of stock or products sold. It is often described by being converted into the company's accounting currency. Whereas (Marist, 2014) also agreed with Marquis Codjia (2015), that Sales turnover is the total amount of revenue generated by a business during the calculation period. The concept is useful for tracking sales levels on a trend line through multiple measurement periods, in order to spot meaningful changes in activity levels. The calculation period is usually one year. The revenue included in this calculation is from both cash sales and credit sales. The measurement can also be broken down by units sold, by geographic region, by subsidiary, and so forth. Sales turnover is restricted to revenue generated from operations. Thus, it does not include gains from financial or other activities, such as interest income, gains on the sale of fixed assets, or the receipt of payments related to insurance claims. They also agreed that, the amount of sales turnover recognized by a business can vary, depending on whether it uses the accrual basis of accounting or the cash basis. Revenue is recorded under the accrual basis when units are shipped or services provided, whereas revenue is recorded under the cash basis when cash is received from customers (which usually delays recognition, except when there is a prepayment). Therefore, according to them, sales turnover is purely the revenue from selling a good or service. It excludes things like return on investment, interest earned and asset appreciation which are also included in the annual turnover. And it involves an analysis of the company's accounts-receivable-turnover ratio. The ratio indicates how quickly corporate customers pay their bills. It equals total net sales divided by accounts receivable. By poring over sales data from one accounting period to another, top leadership familiarize themselves with important economic factors affecting sales figures. Equally important, sales-turnover analysis provides marketing personnel with an important trove of data to understand customers' preferences.

Jerome,(2012) stated that the soft drink manufacturing market in the United States is dominated by three players, who accounted for 66% of the total market share in 2010: The Coca-Cola Company (28·6%), PepsiCo, Inc. (26·8%), and the Dr Pepper Snapple Group (8·6%). The remaining 36% of the market includes many small soft drink manufacturing companies. Soft drink manufacturing is a \$47·2 billion industries in the United States based on revenue. It was forecast to generate a profit of \$1·7 billion in 2010. The industry's annual growth was 1·8% from 2005 to 2010, and it is expected to maintain this growth rate between 2010 and 2015. In relation to product segments and major market brands, products produced in this industry are broadly referred to as soft drinks but can be further divided into six main segments based on industry revenue such as carbonated soft drinks, fruit beverages, bottled waters, functional beverages and sports drinks.

#### 2.3.1 Revenues

Steven Slutsky, (2014) stated that revenue is the income generated from sale of goods or services, or any other use of capital or assets, associated with the main operations of an organization before any costs or expenses are deducted. Revenue is shown usually as the top item in an income (profit and loss) statement from which all charges, costs, and expenses are subtracted to arrive at net income. Also called sales, or (in the UK) turnover.

Ken Stoler (2014) Revenue is a key performance measure and driver of other metrics, such as net income, and earnings per share. If the period or pattern in which revenue is recognized by a company changes due to packaging innovations, the impact could have ripple effects. The amount of revenue recognized during a period is a direct driver of most sales compensation

plans, and may impact bonus pools, long term incentive plans, or stock compensation plans tied to previously defined performance measures.

#### 2.3.2 Total units of stock sold

Looking at the flow of inventory through a company during a sales period can give you a direct view of the sales made during that period, both in value, and in the amount of units sold and this was pointed out by Larry, (2015). The differences between beginning and ending inventory, as well as the inclusion of new inventory gives an exact picture of sales numbers for the period between, with only a bit of simple math required to bring that sales picture to light. It can be attained through the use of end of year financial reports from the preceding period to determine the beginning inventory as a starting point. The beginning inventory is listed as the ending inventory in the financial reports with a valuation and perhaps even the number of items represented by that valuation check the production or purchasing records for the cost of goods added to the inventory during the sales period, add these costs to the beginning inventory to determine the total inventory available for sale during the period, check the present year's financial statements for a listing of the ending inventory at the end of the sales period. Subtract the ending inventory from the total inventory available for sale amount to determine the value of the units sold from inventory during the sales period and the Calculate the number of units sold by total valuation by dividing the amount of inventory sold off during the calculation period by the price to produce each unit individually, Simmons, (2015)

#### 2.4 Packaging Innovation and Sales Turnover

Both Rundh (2005) and Stewart (1995) identify costs as an aspect of packaging innovation, is a key consideration for the brand owner and product manufacturer. The underlying principle which draws together the key elements of a product's packaging is that of optimal overall cost.

However, this is a complicated issue, as the implications of a package choice extend far beyond the basic unit cost. Filling the package or packaging the product can be a costly activity; hence, care in its design is essential to ensure the efficiency of these activities, and avoid costs being incurred at this stage. Garcia and Prado (2003) establish the significance of this, suggesting that the adequate or inadequate design of packaging can affect almost forty per cent of the packers' companies' invoicing; and over ten per cent of the invoicing in the distributing companies (due to its effect on packing, distribution, and waste management).

The key members of the channel for packaged goods are highlighted in Rundh (2005)'s model of the packaging industry in the supply chain. Whilst preceding discussions have provided some insights into the relevance of packaging's roles in the supply chain, this warrants specific analysis.

#### 2.4.1 Effect of packaging innovation on revenues of the company.

Sales turnover has been studied extensively in the diffusion-of packaging innovation literature Mahajan and Wind 1991). Among its major findings are that revenue from packaging innovation may take considerable time to materialize, and that revenue levels depend on several factors, including the degree of product innovation. In addition, packaging innovation may have a persistent effect on revenues, as opposed to price promotions, which typically produce only temporary benefits (Nijs et al. 2001, Pauwels et al. 2002, Srinivasan et al. 2000). Therefore, the assessment of product innovations effects on revenue should distinguish short-term ('immediate' or 'same-week') effects, and long-term effects, which could be temporary ('adjustment', 'dust-settling') or persistent (permanent). Bottom-line financial performance may benefit from packaging innovations through increased demand, increased profit margin and lower customer acquisition and retention costs (Bayus et al. 2003). Geroski et al. (1993) note that packaging

innovation can have a temporary effect on a firm's financial position due to the specific product innovation, or could have a permanent effect because it transforms competitive capabilities. However, such long-term profit benefits can be jeopardized by several factors, even when sales turnover increases (Shermann and Hoffer 1971). Development and production costs are considerable, notably in the soft drink industry.

Shaum Weston (2014) stated that, consumers are clearly attracted to innovations in packaging, which is a strong argument for brands to continue to invest in the development of their packaging. While packaging is one of the constracts of marketing mix, its immediacy to the point of purchase means it can have a disproportionate effect in driving sales. She continued that, with increasingly busy lives and an ever greater choice of products on our shelves, brands need to recognize the opportunities that packaging innovations offer them in winning and keeping customers,

"Said Bennett (2014). "Brands that adopt new innovations such as augmented reality (AR) codes thermodynamic inks and nanotechnology will not only drive sales but will be viewed as innovative by consumers.

Ritu etal (2009) have laid emphasis on packaging as an important tool in marketing communications especially at the point of purchase and as a stimulator of impulsive buying behavior.

Taytr (2013) in the global beverage packaging landscape, the major types of materials and components include Rigid Plastics, Flexible Plastics, Paper & Board, Rigid Metal, Glass, Closures and Labels. He also stated that, types of packaging may include bottle, can, pouch, cartons and others. Beverage packaging, especially for spirits, is a perennial source of creative

packaging design. One of the category's more interesting structural innovations is a package from German company Get Ranke GmbH & Co. Limited edition 4-packs of Pilsner Urquel cans boast about the beer brand's heritage with packaging design elements that draw on the company's 172-year history while another promotion centers on the Czech National Hockey team. Launched purposefully on Friday the 13th, Anheuser-Busch's newest brew lives up to its name by presenting on-package details and surprises that represent several firsts in the U.S. beer market. Beverage packaging designs that elicit an emotional response from their target audience tend to do quite well in the marketplace. Nobody knows beverage packaging like a bartender, and to leverage their knowledge, spirits brand owner the 86 Co. asked professional bartenders to participate in its packaging design process. Surprisingly, required information on labels of beer sold in the U.S. depends on what ingredients are used to make the beer, not the alcohol level. Diageo is making waves in beverage packaging with an electronically tagged bottle for Johnnie Walker Blue Label whisky that promises to not only enrich consumers'. "Develop new packaging formats/sizes" is leading the list of ways companies expect to increase their beverage portfolio in 2015, according to early results to a Packaging Digest poll, done in partnership with the Inst

Robinson, (2014) stated that, segmentation is a pre-requisite for successful revenue innovation it's simply not possible to identify new pricing strategies, new payers or new packaging options without first understanding the different ways that customers use and interact with the product and you have to have deep insight into where and how customers perceive value based on how they behave, not just what they say they want. Therefore, he says that, Innovative ideas do not happen by accident and revolutionary products and processes do not happen overnight. That is why companies in soft drinks take an organized approach to label and packaging innovation.

#### 2.4.2 Effects of Packaging Innovation on Total Units of stock sold

Policy makers, economists, and investors all want to know where the economy is headed. For example, if the economy is headed for a slow-down, it might be prudent on the part of the Federal Reserve to cut interest rates or for Congress to consider a tax cut to head off an economic downturn. Information on total unit of stock sold is a key input into various decision makers' economic prediction models. "When inventory grows faster than sales, profits drop." That is, when companies face slowing sales and growing inventory, then markdowns in prices are usually not far behind. Increases in raw materials and work-in-process total unit of stock sold can provide a signal that the company is building its total unit of stock sold to meet increased demand, and therefore future sales and income will be higher. Packaged goods are regularly seen in retail stores and may actually be seen by many more potential customers than the company's advertising. An effective package sometimes gives a firm more promotional impact than it could possibly afford with conventional advertising efforts. Promotionally-oriented packaging also may reduce total distribution costs. An attractive package may speed turnover so that total costs will decline as a percentage of sales. Rapid turnover is one of the important ingredients in the success of self-service retailing. Without packages, self-service retailing would not be possible (Chaneta, 2012). Chaneta, (2012) agrees that costs may rise because of packaging and yet everyone may be satisfied because the packaging improves the total product, perhaps by offering much greater convenience or reducing waste.

John, (2015) A measure of the total sales that a firm earns in a given reporting period, as expressed on a per unit of output basis. Typically, when using or analyzing a unit sales figure, it should be based on a physical product, such as the number of tons of coal sold, rather than on the

number of services rendered. A unit sale, which is a top-line item, is a useful figure for analysts because it enables them to determine average product prices and find possible margin pressure.

# 2.4.3 Ways of sustaining modern packaging innovation to improve sales turnover

Packaging innovation has a high cost for users from the farm, processing and distribution sectors. A comprehensive analysis of the true value of packaging innovation and the options available (usually a factor of the demand for commodities requiring packaging, resource availability and innovation capacities, among others), can place the cost of packaging in the right perspective. In fact, views are emerging that in the long run more, but better, packaging rather than less could help address the problem of losses. An increased understanding on the protective and marketing functions of packaging and a better appreciation of the economics of its use can help promote the use of food packaging to reduce food losses.

The packaging industry is composed of two major components, namely, the supply side or providers of packaging products and the demand side or end users. Each component's category is characterized by varying investment status and potentials, contingent upon growth stimuli in each sector.

The world production of packaging machinery reached € 22 billion in 2007 (Packaging Gateway, 2010). Packaging refers to the technology and material for enclosing or protecting products for distribution, storage, sale, and use (Soroka, 2002). The packaging manufacturing sub-sector is not so much globalized, with exports ranging only to a quarter of the total market volume. This is attributed to its general tendency to set up operations nearer to its end market to cut down on variable costs.

Aside from the large volume of production, another factor that can further attract investment in packaging is the steady growth in these commodities. Furthermore, in a report, FAO (2009a), has predicted that SMEs have high growth opportunities in agriculture up to year 2018 which has in fact already attracted high income countries to invest in SMEs as supply regions to secure their own long-term food security. The projection on the possible size and opportunities for investment in the packaging needs of Developing Market Economies (SMEs) is based on

- The growth in imports of packaging materials, and
- The growth in exports of food commodities for the period 2005–2012. The data are mainly from the International Trade Centre (ITC, 2012).

(Hicks, 2001). It is also being increasingly recognized that the time has come when these traditional technologies must be upgraded through scientific application of packaging principles and then integrated with other functions such as marketing and advertising into country development programs. Secondly, the more expensive products of imported technologies have further slowed down the development of indigenous technologies specifically those with potentials. Care should be taken that new technologies complement, not slow down, the development of indigenous ones. Numerous examples also exist of technically and economically sound upgraded technologies, which were rejected by the target group because they clashed with socio cultural customs and tradition

A major packaging cost concern for SMEs is package containers for transport. The options are to go for cheaper single use containers, usually boxes, or invest in multiple-use containers. Many organizations today are turning to reusable containers (totes, boxes and bins), reusable pallets,

and pallet pooling systems (pallet rental) for multiple transport trips in closed-loop and managed open-loop shipping systems (Stop Waste Partnership & Reusable Packaging Association, 2008).

In societies where there is starvation and a lack of materials, modified criteria could be employed as the decision relates to availability. An abundant supply of packaging materials can tolerate more regulations and constraints than a tight supply. Regulations for packaging materials that allow slightly higher levels of contamination could be allowed to increase the availability of materials. Risk-benefit analysis needs to incorporate both the safety level of the materials and the detrimental effects of a restricted supply (Marsh, 2001).

Packaging becomes an added P to the 4 Ps of marketing (product, price, place, promotion), particularly in terms of facilitating branding, product differentiation and identity which is best communicated at the point of purchase on packaging and food loss in the value chains

Developing the packing service provision sub sector, specifically in relation to pre-packing and out sourcing, will provide the much needed boost to food packaging in developing countries. They will not only lend affordability to packages and packing but will likewise enhance handling and distribution efficiencies to exporters, especially to SMEs.

## CHAPTER THREE

### **METHODOLOGY**

### 3.0 Introduction

This chapter presents the methods that were used during the research study and the basic contents in this chapter included; research design, area of the study, target population, sample, size, techniques and sample selection, data collection methods and research instruments, data collection procedure, data processing and analysis, validity and reliability methods of data analysis, measurement of variables and anticipated limitations that the researcher faced during the study process and their delimitations.

# 3.1 Research Design

The study used a cross-sectional design with both quantitative and qualitative approaches. The quantitative study is done when analyzing sales turnover and qualitative on packaging innovation. Under quantitative the study used correlation analysis or relation. The qualitative looked at packaging innovation and its effect on sales turnover of Harris international (U) Ltd.

The correlation analysis was chosen so as to test the relationship between independent variables (Packaging Innovation) and the dependent variable (Sales turnover). Ader, Mellenbergh, and Hand, (2008) argues that correlation research design is procedure in which subjects' scores on two variables are simply measured without manipulation of any variables to determine whether there is a relationship whereas Gorard (2013), correlation research design, is about finding the relationship between and among a number of facts that are sought and interpreted. Gorard however, continues to argue that while this research design recognizes trends and patterns in data, it does not go so far in its analysis to prove the causes for the observed trends. Therefore,

the research went ahead to test whether there was relationship was predictive or not by using simple and multiple regression analysis.

# 3.2 Study Population

Population refers to the group of people, events or things or elements of interest that researcher wishes to investigate (Denscombe, 2003). Mugenda and Mugenda (1999) observed that population is the entire set of individuals, events or objects having common observable characteristics. Amin (2005) asserted that a population is the complete collection (or universe) of all the elements (units) that are of interest in a particular investigation and where inferences are to be made. Thus, this study target total population was 115 respondents. Thus, this study collected information from Harris International (U) Ltd staff comprising of; Marketing department, Research and development department, Top management, Sales forces. This is because all these categories are believed to be knowledgeable about packaging innovation and sales turnover within the company.

# 3.3 Sample size

Sekaran (2003) asserts that a sample is a subgroup or subset of population from which researchers should be able to draw conclusions that would be general to the population of interest. Robson Collin (1999) observed that it is not feasible to gather detailed information about all the persons involved for all the time they are involved. Therefore, it requires sampling with some principled decisions about who, where and when to be studied.

Therefore, the sample size was determined basing on Krejcie & Morgan 1970 (Amin, 2005). A total target population of people from marketing department, research and development department, finance department, and sales forces of 115, the researcher sampled only 106

respondents, in order for the researcher to come up with this sample size, he randomly sampled the respondents, by using convenience sampling and purposive techniques.

Table 3:1 Showing the Sample Size of the study

Category	Population (target)	Sample size	Sampling technique
Top management	15	14	Purposive
Research and development department	25	24	Purposive
Marketing department	35	32	Purposive
Sales forces	40	36	Simple random
Total	115	106	

Source Primary data (2015) from Harris International (U) Ltd sampled using Krejie& Morgan (1970) sampling method

# 3.4 Sampling Techniques and Procedure

# 3.4.1 Sampling Techniques

According to Mugenda and Mugenda (2003), sampling is a process of selecting a number of individuals for a study in such a way that the individuals selected represent the large group from which they are selected. The purpose of sampling is to secure a representative group which will enable the researcher gain the necessary data that the study seeks to find.

Therefore, the study used both probability and non-probability sampling design. From the existing probabilistic sampling design, the study used simple random sampling techniques. Simple random sampling was used to select the respondents from the departments mentioned

above. This technique was chosen because these categories had a large population size and as such warranted simple random sampling to minimize sampling bias (Mugenda & Mugenda, 2003). From the existing non-probabilistic sampling design; Purposive sampling was used to select sales forces. The researcher also used stratified sampling. This technique was employed to ensure a fairly equal representation of the variables for the study. Therefore, the targeted population of respondents was divided into a number of strata according to the significant groups in the population. The researcher managed to establish the population for each stratum using a simple random sampling design after which the individual respondents were managed from each stratum.

# 3.4.2 Sampling Procedure

The researcher worked with a sample of population that was selected as representative of the population, Sekaran, (2003) observes that collecting data from the entire population would be practically impossible and it would be very difficult to examine elements in the population. In addition, it would be prohibitive in terms of time, cost, and other resource input. Study of a sample is therefore likely to produce more reliable and quick results because fewer errors resulted during the data collection exercise. The sample size was determined using Morgan and Krejcie (1970, as cited in Amin, 2005)

# 3.5 Data Collection Sources, Methods and Instruments

## 3.5.1 Data Collection sources

Data was obtained from both primary and secondary sources. Primary data was obtained using open and closed questionnaires that were given to respondents and interviews that were conducted with respondents.

#### 3.5.2 Data Collection methods and instruments

Questionnaire: This was used to collect primary data from the respondents it involved administered questionnaires. Therefore, administering of questionnaire was method while questionnaires were instruments that were employed. The method of survey using questionnaire was deemed appropriate since part of the questionnaire provided respondents a choice of picking their answers from a given set of alternatives while the other part of the questionnaire allowed them to qualify their responses (Amin, 2005). Questionnaires were advantageous since they reached to thousands of people all at once. Self-administered questionnaires saved researchers time and money needed to hire people to interview the respondent. Still the questionnaire was advantageous because they were answered anonymously; this means that sensitive and personal questions were more likely answered.

**Interview**: This was used to collect primary data from the respondents. It involved the use of a semi-structured interview schedule/guide as an instrument while interviewing was a method. The method of interview using interview guide was deemed appropriate since the mentioned categories of respondents was vital information yet may fail to get enough time to fill in questionnaires (Sekaran, 2003).

# 3.6 Validity and reliability

# 3.6.1 Validity:

Validity tests were carried out on sampled questionnaires and the context validity index was computed at 0.8

# 3.6.2 Reliability

Reliability: Gall (1996), defines reliability as the degree of consistency of the measuring instrument. This agrees with Mugenda and Mugenda (2003) who stated that reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials. The social sciences research accepts variables scoring a coefficient above 0.70.

Reliability will be ensured through test-retest procedure of both the questionnaire and the interview guide. The supervisors also will review the questionnaire and the interview guide to ensure that they are capable of capturing the required data. The questionnaires will be pilot tested on 10 respondents and the result subjected to Cronbach alpha method, which is a test of internal consistency according to Amin (2005). The Cronbach's Alpha Reliability Coefficient ( $\alpha$ ) will be calculated by running a statistical test using Statistical Package for Social Scientists (SPSS). So this was done to confirm correctness of questions and responses obtained, Cronbach coefficient was 0.6.

# 3.7 Data processing and analysis

# 3.7.1 Data Processing

Data was processed by use of Software package for social scientists (SPSS) where it was edited, coded, entered, and then presented in comprehensive tables showing the responses of each category of variables and tables was used to present findings.

# 3.7.2 Analysis

Data analysis involved the use of both descriptive and inferential statistics in the Statistical Package for Social Scientists (SPSS). Descriptive statistics entailed determination of measures of central tendency such as mean and measures of dispersion such as standard deviation and percentages. Inferential statistics included correlation analysis using a correlation coefficient in order to answer the research questions. A correlation coefficient was computed because the study entailed determining correlations or describing the relationship between two variables. At bi-variant level, packaging Innovation indicators of independent variable were correlated with sales turnover basing on Pearson's Correlation Coefficient. However, there was a need to run a simple regression analysis to confirm whether the relationship was predictive or not.

#### 3.8 Measurement of Variables

Mugenda (2003) supports the use of nominal, ordinal, and Likert rating scales during questionnaire design and measurement of variables. A nominal scale is the level of measurement which differentiates between items or subjects based only on their names. The nominal scale was used to measure such variables as gender, marital status. An ordinal scale is the level of measurement which differentiates between statements based only on the numbers. The ordinal scale was employed to measure such variables as age, level of education, and years of experience. The five point Likert type scale (1- strongly disagree, 2-disagree, 3-not sure, 4- agree and 5-Strongly agree) was used to measure the independent variable and the dependent variable using a questionnaire. The choice of this scale of measurement is that each point on the scale carries a numerical score which is used to measure the respondent's attitude and it is the most frequently used summated scale in the study of social attitude.

### 3.9 Ethical Considerations

The researcher respected anonymity of the respondents by ensuring confidentiality of the respondents and the data provided. This was done through assurance that the information they provided was purely for academic purposes and that their identity was not disclosed to anyone. This was highlighted in the introductory part of the questionnaire. All the sources of literature were acknowledged through citations and referencing. Lastly, objectivity was considered during dissertation writing to avoid personal bias.

# 3.10 Limitations of the study and Delimitations

Limited funds. Certainly a research of this nature requires a lot of resources in terms of stationary, transport fares, feeding, time, telephone costs, internet fee, secretarial assistance, printing, binding, and photocopying costs and many other miscellaneous expenses this requires a firm financial stand. However, the researcher used his saving to facilitate this research.

**Time aspect.** Insufficient time to conduct the study since the study extends into the study semester. This means handling school programs such as lectures alongside the research which was not changeable.

**Un-willingness to Respond.** The researcher encountered the problem of poor response by the respondents. This somehow delayed the exercise. However, through physical contacts by the researcher, research assistant and the respondents, it motivated the respondents.

## CHAPTER FOUR

# PRESENTATION, INTERPRETATION AND DISCUSSION OF FINDINGS

#### 4.0 Introduction

This chapter includes the results (findings) from the study and analysis of those finding and their discussions in relation to the objectives of the study and research questions. The findings are presented in tables and charts as shown below.

# 4.1 Response rate

A total of 106 questionnaires were distributed to Employee of Harris international (U) ltd under various departments but by the end of the exercise only 100 questionnaires were collected posing a response rate of 94.3% and non-response of 5.6% as shown in the table below. However, according to Kothari (2004) 70% of the respondents are enough to represent the sample size set for the study. This means that 87% of the respondents were enough for the study.

Table 4:1 Showing the Response rate

	Response	Frequency	Percent
Valid	Returned	100	94.3
	Not returned	6	5.6
	Total	106	100.0

Source: Primary Data from Harris International (U)Ltd

# 4.2 Background information

The researcher classified the respondents of Harris international basing on their gender, position they held specifically for the staff, level of education, marital status and the number of years' respondents worked with the company. This is because the researcher wanted to be generous to all employees.

# 4.2.1 Gender of the respondents.

The researcher wanted to find out whether the gender of the respondents has an effect on package innovation and results in sales turnover. The findings were expressed in table 4:2 below

Table 4:2 Showing the Gender of the respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	45	45.0	45.0	45.0
	Female	55	55.0	55.0	100.0
	Total	100	100.0	100.0	100

Source primary data, 2015

From the table 4.2 above 45% are male and other 55% are female. This shows that there is no gender bias. Therefore, Harris International (U) ltd has both male and female respondents which can provide reliable data on package innovation and sales turnover.

# 4.2.2 Age of the respondents.

The researcher wanted to find out whether the age of the respondents has an effect on package innovation and whether it can result into increase in sales turnover. The findings were expressed in table 4:3 below

Table 4:3 Showing the age of the respondents

		Frequency	Percentage	Cumulative Percent
Valid	20-24	14	14.0	14.0
	25-29	33	33.0	47.0
	30-34	14	14.0	61.0
	35-39	25	25.0	86.0
	40 and above	14	14.0	100.0
	Total	100	100.0	100

Source: primary data, 2015

From the table above, majority of the respondents were in the age bracket between 25-29. This implies that all age groups were represented hence reliable information was collected in relation to package innovation and sales turnover.

# 4.2.4 Respondents' Service Duration

The researcher wanted to find out whether the length of service (duration) of Staff has an effect on package innovation and results in sales turnover. The findings were expressed in table 4:4 below.

Table 4:4 Showing the Staff service duration

		Frequency	Percent	Cumulative Percent
Valid	Below a year	26	26.0	26.0
	One year	23	23.0	49.0
	2-5 years	21	21.0	70.0
	6-10 years	14	14.0	84.0
	At least 10 years	16	16.0	100.0
	Total	100	100.0	100

Source primary data, 2015

**Table 4.4** above indicates that most of the respondents had worked at Harris International(U) ltd for period of below one years, followed by those who worked in this organization for one year' and the least had worked for this organization for 6-10. This implies that the respondent had reliable data about package innovation and how it can affect sales turnover

# 4.2.4 Respondents Level of Education.

The levels of education were considered to find out whether respondents were competent and had the capacity to understand the issues in relation to package innovation and sales turnover. The findings were expressed in table 4:5 below

Table 4:5 Showing the respondents' level of education

	Frequency	Percent	Cumulative Percent
Diploma	23	23.0	23.0
Under graduate degree	37.0	37.0	60.0
Post graduate diploma	24.0	24.0	84.0
Master's Degree	16	16.0	100.0
Total	100	100.0	100

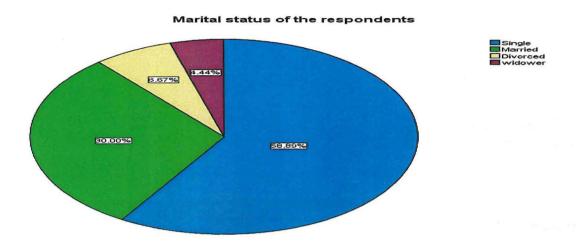
Source Primary data, 2015

Table 4.5 above shows that, 23.0 % were diploma holders, 37.0% of the respondents were undergraduate degree holders, 24.0% of the respondents were postgraduate diploma holders and 16.0% of the respondents were master's degree holders. This implies that, respondents had the capacity of participating in the study due to the fact that most of them had enough education thus helped in getting right and reliable information. This made the researcher to come up with quality data on package innovation and sales turnover.

# 4.1.6 Marital status of the respondents

The researcher wanted to find out whether marital status of the respondent has an effect on package innovation and results in sales turnover. The findings were expressed in figure 4:6 below

Figure 1 Showing marital status of the respondents



Source: primary data 2015

From the figure above show the 58.9% of the respondents were single, followed by 30% of who were married, 4.4% of the respondents were divorced and 6.7 of the respondents were widowed. This means that the study balances all the categories of marital status hence reliable information of package innovation and sales turnover.

Packaging innovation and revenues of Harris international (u) limited

Objective one of the study was "To determine the effect of packaging innovation on revenues on Harris International (U) Limited" in order the research to generate information, he used research question one which were stated as "What is the effect of packaging innovation on revenues of in Harris International (U) Limited?" therefore the findings can be seen as follows in table 4:6 below.

**Table 4:6** Showing the Packaging Innovation and revenues of Harris International (u) Limited

Descriptive statistics which was processed by SPSS. Based on a five Likert scale of 1= strongly agree, 2=agree, 3= not sure, 4=disagree, 5= strongly disagree as follows.

Statement	1		2		3		4		5	
	F	%	F	%	F	%	F	%	F	%
Packaging innovations affect the company's revenue	40	40	45	45	10	10	3	3	2	2
At Harris International (U) limited, Packaging innovation in form of colour increase revenues	49	49	51	51	0	0	0	0	0	0
At Harris International (U) limited, the sizes we use increases revenues	39	39	46	46	10	10	3	3	2	2
Packaging innovation in form of design is a clear indicator of revenue generation at our company.	47	47	40	40	12	12	1	1	0	0
We always use design innovation to cope up with the changing technology.	40	40	45	45	10	10	3	3	2	2
We consider customer preference and revenue generation while colouring our		29	31	31	35	35	3	3	2	2

products at Harris international (U) Ltd										
Some coloured packing materials are not	25	25	35	35	35	35	4	4	1	1
liked by our customers hence an effect on our revenue							-			
our revenue										
Packaging innovations in form of design	0	0	20	20	16	16	19	19	35	35
reduces our revenue										
Packaging innovations has a significant	23	23	40	40	17	17	10	10	10	10
effect on our revenue										
Packaging innovations does not affect our	50	50	40	40	10	10	0	0	0	0
revenue									-	
The sizes we use at Harris international	30	30	40	40	15	15	10	10	5	5
have positive effects on our revenue										

Source: primary data, 2015

On the Problem Statement which was stated as "Packaging innovations affects our revenue" 45% of the respondents agreed with the statement, 40% strongly agreed, 10% were not sure,3% disagreed with the statement and 2% strongly disagreed. This implies that majority of the respondents agreed with the statement that Packaging innovations affects revenues of Harris International (U) ltd.

On the Problem Statement which was stated as "At Harris International (U) limited, packaging innovation in form of colour increases revenues" 51% agreed 49% strongly agreed with the

statement, none of the respondents were not sure, disagreed or strongly disagreed. This means that at Harris International (U) limited, packaging innovation in form of colour increases their revenues.

Also on the Problem statement which was stated as "At Harris International (U) limited, the sizes we use increases revenues" 46% of the respondents agreed with the statement,39% strongly agree with the statement,10% were not sure with the statement ,3% disagreed with the statement and 2% strongly disagree with the statement. Implying that majority of respondents agreed that in Harris International (U) limited, the sizes they use increases revenues.

In relation to the Problem statement which was stated as "Packaging innovation in form of design is a clear indicator of revenue generation in our company." 47% of the respondents strongly agreed with it, 40% agreed, 12% were not sure, 1% disagrees with the statement and none of the respondents strongly disagreed with the statement. This implies that most of respondent agreed with the statement that design innovation is a clear indicator of revenue generation in Harris international ltd.

On the Problem statement which was stated as "We always use design innovation to cope up with the changing technology." 45% of the respondents agreed with the statement, 40% strongly agreed,10% were not sure, 3% disagreed and 2%strongly disagreed indicting that respondents strongly agreed that Harris international's design innovation is done basing on technological changes.

From the table on the statement which was "We consider customer preference and revenue generation while colouring our products" 35% of the respondents were not sure with the statement, 31% of the respondents agreed with the statement, 29% of the respondents strongly

agreed with the statement, 3% of the respondents disagreed with the statement and 2% of the respondents strongly disagreed with the statement. Implying that respond agreed that Harris International Ltd consider customer preference and revenue generation while colouring its products

On the statement which was stated as "Some coloured packaging materials are not liked by our customers hence an effect on our revenue" 35% of the respondents agreed with the statement,35% of the respondents were not sure, 25% of the respondents strongly agreed with the statement ,4% of the respondents disagreed with the statement and 1% of the respondents strongly disagreed with the statement meaning the respondents agreed with the statement that some coloured beverages are not liked by our customers hence an effect on the company's revenue.

Table 4:7 Correlation on packaging innovation and revenues of Harris international (U) Limited

		Packaging Innovation	Total units of goods sold
Packaging Innovation	Pearson Correlation	1	.703**
	Sig. (2-tailed)		.000
	N	100	100
Total units of goods sold	Pearson correlation	.703**	1
	Sig. (2-tailed)	.000	
	N	100	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

# 4.3.1 Packaging Innovation and revenues of Harris

In the virtual of examining whether Packaging Innovation has a relationship with revenues of Harris International (u) Limited, a correlation analysis basing on a bivariate analysis and a regression analysis was computed between two variables. Below are the results in table

From the table above, a strong positive relationship between Packaging Innovation and revenues of Harris international was witnessed at r = 0.703 which was significant at 0.000 < 0.05. This means that when Harris international increase the use of Packaging Innovation its revenues will increase significantly.

Finally, also respondents were not sure that packaging innovations reduces revenue of Harris International(U) ltd and also agreed that packaging innovations has a significant effect on the company's revenue, others agreed that packaging innovations does not affect the company's revenue whereas majority agreed that the sizes at Harris international affects our revenue.

However, there was a need to compute the regression to find out whether the relationship was predictive or not.

Table 4:8 Showing Packaging Innovation and revenues of Harris International (u) Limited.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.703 <sup>a</sup>	.494	0.491	.43555

a. Predicators: (Constant), packaging innovation

b. Predicators: revenues of Harris International (U) Limited

The adjusted R square value of 0.491 indicates that packaging innovation contributes 49.1 % in influencing revenues of Harris International (U) Limited. This also means that 50.9% of revenues of Harris International (U) Limited are influenced by other factors.

**Table 4:9** Packaging Innovation and revenues of Harris International (u) Limited. ANOVA (b)

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	40.787	1	40.787	143.33	.000 <sup>a</sup>
	Residual	24.245	98	.283		
	Total	63.032	100			
Predict	tors: (Constar	nt), revenue				
Predict		nues of Harris Interna	ational (u)			
Limite	d.					

The F value of 143.33 is significant (p value of 0.000 that is less than 0.05). Implying that Packaging Innovation influences revenues of Harris International (U) Limited.

# Packaging innovation and total units of stock sold of Harris international (u) limited

Objective two of the study was "To assess the effect of packaging innovation on total units of stock sold in Harris International (U) Limited" in order the research to generate information, he used research question two which were stated as "What is the effect of packaging innovation on total units of stock sold in Harris International (U) Limited?" Therefore, the findings can be seen as follows in table 4:10 below.

# Table 4:10 Showing the Packaging Innovation and Total Units of Stock Sold of Harris International (U) Limited

Descriptive statistics which was processed by SPSS. Based on a five likert scale of 1= strongly agree, 2=agree, 3= not sure, 4=disagree, 5= strongly disagree as follows.

Statement	1		2		3		4		5	
	F	%	F	%	F	%	F	%	F	%
At Harris international, packaging innovation allows the beginning inventory and the ending inventory to be presented in the financial reports with a valuation.	30	30	45.	45	20	20	2	2	3	3
Packaging innovation facilitates the flow of inventory in a company during a sales period.	25	25	45	45	15	15	10	10	5	5
At Harris international inventory grows faster than sales and profits drop due to Packaging innovation.	39	39	46.	46	10	10	3	3	2	2
Rapid sales turnover due to Packaging innovation is one of the important ingredients in the success of our company.	20	20	31	31	22	22	10	10	17	17

At Harris international, an increase in raw	40	40	45	45	10	10	3	3	2	2
materials and work-in-process can provide a signal that Packaging										
innovation influence sales turnover.										
At Harris international, we usually check	38	38	46	46	11	11	4	4	1	1
the present year's financial statements for										
a listing of the ending inventory at the end										
of the sales period.										
At Harris International, we compute the	39	39	41	41	15	15	1	1	4	4
number of units sold by total valuation by										
dividing the amount of inventory sold off										
during the calculation period by the price										
to produce each unit individually										
Packaging innovation influences sales	25	25	35	35	35	35	4	4	1	1
turnover at Harris International (U) Ltd										

Source primary data, 2015

Basing on the table 4:10 above, on the statement which was stated as "At Harris international," Packaging innovation allows the beginning inventory and the ending inventory to be presented in the financial reports with a valuation." 45% of the respondents agreed with the statement, 30% of the respondents strongly agreed with the statement, 20% of the respondents were not sure, 3% of the respondents strongly disagreed with the statement, 2% of the respondents disagreed with the statement indicating that respondents agreed that in Harris international, Packaging

innovation allows the beginning inventory and the ending inventory to be presented in the financial reports with a valuation.

As is on table above, on the statement which was stated as "Packaging innovation facilitates the flow of inventory in a company during a sales period." 45% of the respondents agreed with the statement, 25% of the respondents strongly agreed with the statement, 15% of the respondents were not sure, 10% of the respondents disagreed with the statement, 5% of the respondents strongly disagreed with the statement which implies that respondents agreed that Packaging innovation facilitates the flow of inventory in a company during a sales period.

On the statement which was stated as "At Harris international inventory grows faster than sales and profits drop due to Packaging innovation." 46% of the respondents agreed with the statement, 39% of the respondents strongly agreed with the statement, 10% of the respondents were not sure. 3% of the respondents disagreed with the statement and then 2% of the respondents strongly disagreed with the statement meaning that respondents agreed that in Harris international ltd inventory grows faster than sales and profits drop due to packaging innovation.

As regard of "Rapid sales turnover due to Packaging innovation is one of the important ingredients in the success of our company." 31% of the respondents agreed with the statement, 22% of the respondents were not sure, 20% of the respondents strongly agreed with the statement, 17% of the respondents strongly disagreed with the statement and 10% of the respondents disagreed with the statement. Implying that respondents agreed with the statement that rapid sales turnover due to Packaging innovation is one of the important ingredients in the success of Harris international ltd.

On the statement which was stated as, "At Harris international, an increase in raw materials and work-in-process can provide a signal that Packaging innovation influence sales turnover." 45% of the respondents agreed with the statement, 40% of the respondents strongly agreed with the statement, 10% were not sure with the statement ,3% of the respondents disagreed with the statement and 2% of the respondents strongly disagreed with the statement. Meaning that in Harris international, an increase in raw materials and work-in-process can provide a clear signal that packaging innovation influence sales turnover.

On the statement which was stated as "At Harris international, we usually check the present year's financial statements for a listing of the ending inventory at the end of the sales period." 46% of the respondents agreed with the statement, 38% of the respondents strongly agreed with the statement, 11% of the respondents were not sure with the statement, 4% of the respondents disagreed with the statement and 1% of the respondents strongly disagreed with the statement which implies that respondents agreed with the statement that Harris international ltd. usually check the present year's financial statements for a listing of the ending inventory at the end of the sales period.

On the statement which was stated as "At Harris International, we compute the number of units sold by total valuation by dividing the amount of inventory sold off during the calculation period by the price to produce each unit individually" 41% of the respondents agreed with the statement, 39% of the respondents strongly agreed with the statement.15% of the respondents were not sure, 4% of the respondents strongly disagreed with the statement and 1% of the respondents disagreed with the statement. Meaning that respondents agreed with the statement that in Harris International ltd they always compute the number of units sold by total valuation

by dividing the amount of inventory sold off during the calculation period by the price to produce each unit individually

From the table above on the statement which was stated as "Packaging innovation influences sales turnover of Harris International" 35% of the respondents agreed with the statement, 35% of the respondents were not sure with the statement ,25% of the respondents strongly agreed with the statement, 4% of the respondents disagreed with the statement and 1% oif the respondents strongly disagreed with the statement applying that Packaging innovation influences sales turnover of Harris International.

**Table 4:11** Packaging Innovation and total units of goods sold by Harris International (u) Limited

		Packaging Innovation	Total units of goods sold
Packaging Innovation	Pearson Correlation	1	.804**
	Sig. (2-tailed)		.000
	N	100	100
Total units of goods	Pearson correlation	.804**	1
sold	Sig. (2-tailed)	.000	
	N	100	100

<sup>\*\*</sup> Correlation is significant at the 0.01 level (2-tailed).

From the table above, a very strong positive relationship between Packaging Innovation and Total units of goods sold by Harris international was released at r=0.802 which was significant at 0.000<0.05. This means that when Harris international ltd increase the use of Packaging Innovation its total units of goods sold will increase and if Harris international ltd does not use Packaging Innovation, total units of goods sold will also decrease.

However there was a need to compute the regression to find out whether the relationship was predictive or not.

Table 4:12 Packaging Innovation and Total units of goods sold by Harris International (u) Limited

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.804 <sup>a</sup>	.646	0.642	.532225

a. Predictors: (Constant), packaging innovation

b. Predicted: Total units of goods sold by Harris International (u) Limited.

The adjusted R square value of 0.646 indicates that packaging innovation contributes 64.2 % in influencing total units of goods sold by Harris International (u) Limited. This also means that 35.8% of revenues of Harris International (u) Limited is influenced by other factors.

Table 4:13 Packaging Innovation and Total units of goods sold by Harris International (u) Limited.

Model		Sum of Squares	Df	Mean Square	F	Sig.
			8			
1	Regression	40.787	1	40.787	163.33	.000 <sup>a</sup>
	Residual	30.245	98	.283		
	Total	70.032	100			
						a .
Predict	tors: (Constai	nt), revenue	1			
					L	

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	40.787	1	40.787	163.33	.000 <sup>a</sup>
	Residual	30.245	98	.283		
	Total	70.032	100			
Predict	ted: Rev	 enues of Harris Int	ternational (u)			
Limite	d.					

The F value of 163.33 is significant (p value of 0.000 that is less than 0.05). Implying that Packaging Innovation influences total units of goods sold by Harris International (u) Limited.

# 4.6 WAYS OF IMPROVING AND SUSTAINING MODERN PACKAGING INNOVATION TO IMPROVE SALES TURNOVER

Objective three of the study was "To determine the ways of improving and sustaining modern packaging innovation to improve sales turnover" in order the research to generate information, he used research question three which were stated as "What are the ways of improving and sustaining modern packaging innovation to improve sales turnover?" Therefore, the findings can be seen as follows in table 4:14 below.

**Table 4:14** Showing Ways of improving and sustaining modern packaging innovation to improve sales turnover.

Descriptive statistics which was processed by SPSS. Based on a five lirket scale of 1= strongly agree, 2=agree, 3= not sure, 4=disagree, 5= strongly disagree as follows.

Statement	1		-2		3		4		5	
	F	%	F	%	F		F	%	F	%
At Harris international, we usually carry out a comprehensive analysis in packaging innovation in order to improve sales turnover.	43	43	42	42	8	8	3	3	4	4
Our packaging innovation system uses updated technology which can improve sales turnover	49	49	30	30	7	7	8	8	6	6
At Harris international we use different processing and distribution sectors in packaging innovation	39	39	46	46	10	10	3	3	2	2
We usually consider the cost of packaging in the right perspective	30	30	37	37	12	12	11	11	10	10
Harris international, employs qualified packaging innovation managers with the	40	40	45	45	10	10	3	3	2	2

aim of improving sales turnover										
At Harris international, we usually change the packaging design basing on customer	30	30	43	43	11	11	7	7	9	9
requirements.										
At Harris International, we usually considered NBS in Packaging innovation	35	35	45	45	6	6	10	10	4	4
process										

Source: primary data, 2015

On the statement which was stated as "At Harris international, we usually carry out a comprehensive analysis in packaging innovation in order to improve sales turnover." 43% of the respondents strongly agreed with the statement, 42% of the respondents agreed with the statement, 8% of the respondents were not sure with the statement, 4% of the respondents strongly disagreed with the statement and 3% of the respondents disagreed with the statement implying that the respondents agreed that Harris international ltd, usually carry out a comprehensive analysis in packaging innovation in order to improve sales turnover.

On the statement which was stated as "Our packaging innovation system uses updated technology which can improve sales turnover" 49% of the respondents strongly agreed with the statement, 30% of the respondents agreed with the statement, 8% of the respondents disagreed with the statement, 7% of the respondents were not sure with the statement and 6% of the respondents strongly disagreed with the statement. Thus respondents agree that the company's packaging innovation system uses updated technology which can improve sales turnover.

On the statement which was stated as "At Harris international we uses different processing and distribution sectors in packaging innovation" 46% of the respondents agreed with the statement, 39% of the respondents strongly agreed with the statement, 10% of the respondents were not sure ,3% of the respondents disagreed with the statement and 2% of the respondents strongly disagreed with the statement which means respondents agreed with the statement that in Harris international they uses different processing and distribution sectors in packaging innovation.

On the statement which was stated as "We usually consider the cost of packaging in the right perspective" 35 of the respondents agreed with the statement, 30% of the respondents strongly agreed with the statement, 12% of the respondents were not sure with the statement, 11% of the respondents disagreed with the statement and 10% of the respondents strongly disagreed with the statement which means respondents agreed that the company usually consider the cost of packaging in the right perspective.

On the statement which was stated as "Harris international, employs qualified packaging innovation managers with the aim of improving sales turnover" 45% of the respondents agreed with the statement, 40% of the respondents strongly agreed with the statement ,10% of the respondents were not sure with the statement ,3% of the respondents disagreed with the statement and 2% of the respondents strongly disagreed with the statement which means respondents agreed that Harris international, employs qualified packaging innovation managers with the aim of improving sales turnover.

On the statement which was stated as "At Harris international, we usually change the packaging design basing on customer requirements." 43% of the respondents disagreed with the statement, 30% of the respondents strongly agreed with the statement, 11% of the respondents were not sure

with the statement, 9% of the respondents strongly disagreed with the statement and 7% of the respondents disagreed with the statement. This implies that respondents agreed in Harris international, they usually change the packaging design basing on customer requirements.

On the statement which was stated as "At Harris International, we usually considered NBS in Packaging innovation." 45% of the respondents agreed with the statement, 35% of the respondents strongly agreed with the statement, 10% of the respondents disagreed with the statement, 6% of the respondents were not sure and 4% of the respondents strongly disagreed with the statement implying that respondents agreed that At Harris International, they usually considered NBS standards in Packaging innovation.

In a concussive remark therefore, when Harris international ltd usually carry out a comprehensive analysis in packaging innovation, putting in place a system which uses updated technology, using different processing and distribution sectors in packaging innovation, consider the cost of packaging in the right perspective, employing qualified packaging innovation managers, changes in packaging design basing on customer requirements and when it considers NBS standards in Packaging innovation processes the company will be in passion to improve its sales turn over.

## CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the summaries of the findings, discussions of objectives set for the study, conclusions derived from the findings, and the recommendations that will help Harris International "U" ltd in slipping back sales turn over based on the findings of the study.

### 5.2 SUMMARY OF THE FINDINGS

This section presents information on the effect of packaging innovation on revenues of Harris international ltd, effect of packaging innovation on total units of stock sold at Harris international (U) ltd and various ways of improving and sustaining modern packaging innovation to improve sales turnover.

# 5.2.1 EFFECT OF PACKAGING INNOVATION ON REVENUES OF HARRIS INTERNATIONAL (U) LTD

Findings revealed that majority of the respondents agreed that packaging innovations affects revenues of Harris International (U) ltd, packaging innovation in form of Colour increases their revenues, the sizes they use increases revenues, design innovation is a clear indicator of revenue generation in Harris international ltd, Harris international's design innovation is done basing on technological changes, the company's, Harris International Ltd consider customer preference and revenue generation while colouring its products, coloured packaging materials are not liked by our customers hence an effect on the company's revenue. This was supported with a strong positive relationship between Packaging Innovation and revenues of Harris international at

r=0.703 which was significant at 0.000<0.05. Therefore, if Harris international increase the use of Packaging Innovation its revenues will increase significantly.

# 5.2.2 Effect of packaging innovation on total units of stock sold in Harris International Ltd.

Findings disclosed that at Harris international(U) ltd, packaging innovation allows the beginning inventory and the ending inventory to be presented in the financial reports with a valuation, Packaging innovation facilitates the flow of inventory in a company during sales period, inventory grows faster than sales and profits drop due to packaging innovation, rapid sales turnover due to packaging innovation is one of the important strategies in the success of Harris international (U) ltd, an increase in raw materials and work-in-process can provide a clear signal that packaging innovation influence sales turnover, Harris international ltd, usually check the present year's financial statements for a listing of the ending inventory at the end of the sales period, they always compute the number of units sold by total valuation by dividing the amount of inventory sold off during the calculation period by the price to produce each unit individually, Packaging innovation influences sales turnover of Harris International (U) Ltd. This was supported by a positive relationship between Packaging innovation and Total units of goods sold by Harris international at r = 0.802 which was significant at 0.000<0.05. Meaning that when Harris international (U) ltd increases the use of Packaging Innovation its total units of goods sold will increase and if Harris international (U) ltd does not use Packaging Innovation, total units of goods sold will also decrease.

# 5.2.3 Ways of improving and sustaining modern packaging innovation to improve sales turnover.

Findings revealed that, Harris international(U) ltd usually carry out a comprehensive analysis in packaging innovation, putting in place a system which uses updated technology, using different

processing and distribution sectors in packaging innovation, consider the cost of packaging in the right perspective, employing qualified packaging innovation managers, changes in packaging design basing on customer requirements and when it considers NBS standards in Packaging innovation processes the company will be in passion to improve its sales turn over.

### 5.3 CONCLUSIONS

The study objectives have all been met and conclusions drawn on the effect of packaging innovation on revenues and the effect of packaging innovation on total units of stock sold at Harris international (U) ltd and various ways of improving and sustaining modern packaging innovation to improve sales turnover.

# **5.3.1** Effect of Packaging Innovation on Revenues

Objective one of the study was "To determine the effect of packaging innovation on revenues on Harris International(U) Limited" in order the research to generate information, he used research question one which were stated as "What is the effect of packaging innovation on revenues of in Harris International (U) Limited?" therefore findings revealed a strong positive relationship between Packaging Innovation and revenues of Harris international at r=0.703 which was significant at 0.000<0.05. This means that research objective one was achieved and research question one was answered.

# 5.3.2 Effect of packaging innovation on total units of stock sold

Objective two of the study was "To assess the effect of packaging innovation on total units of stock sold in Harris International (U) Limited" in order the research to generate information, he used research question two which were stated as "What is the effect of packaging innovation on total units of stock sold in Harris International (U) Limited?". Findings disclosed that a very strong positive relationship between Packaging Innovation and Total units of goods sold by

Harris international at r=0.802 which was significant at 0.000<0.05. Meaning that when Harris international ltd increase the use of Packaging Innovation its total units of goods sold will increase and if Harris international ltd does not use Packaging Innovation, total units of goods sold will also decrease. This means that research objective two was achieved and research question two was answered.

## 5.3.3 Ways of improving and sustaining modern packaging innovation to improve sales turnover.

Findings revealed that, Harris international (U)ltd usually carry out a comprehensive analysis in packaging innovation, putting in place a system which uses updated technology, using different processing and distribution sectors in packaging innovation, consider the cost of packaging in the right perspective, employing qualified packaging innovation managers, changes in packaging design basing on customer requirements and when it considers NBS standards in Packaging innovation processes the company will be in position to improve its sales turn over. This means that research objective three was achieved and research question three was answered.

#### 5.4 Recommendations

According to the findings, the researcher recommended that;

- i. Harris international (U) ltd should monitor and analyze the market trends and developments globally, regionally and nationally and providing data and analysis on everything from total market size and share, to specific category level information; this will help them in planning, strategic development, marketing, mergers and acquisitions and brand management.
- ii. Harris international (U)ltd should analyze supply-side and demand trends, detailed segmentation of international and local products, historic volumes in units and filled

- volumes, five year forecasts of market trends and market growth, robust and transparent market research methodology, conducted in-country
- iii. The researcher also recommends that, just like all other industries that consume natural materials, Harris international (u) ltd has the responsibility to make its products as environmentally sound as possible even when they start at such an advanced point as glass or bottles.
- brainer for business. But unfortunately within the recycling industry, as colours of glass and plastic must be separated, a lot of recycled glass ends up in asphalt production, rather than as new glass products. This is a huge challenge to the Harris international (u) ltd and one that must be tackled if glass and plastic is to live up to its potential as an environmentally friendly option.
- v. Harris international (u) ltd should eliminate waste on the production line to ensure sustainability of the industry.
- vi. The process of making glass and plastic bottles lighter thus reducing the energy required to produce and transport them. This has been a very important innovation in the recent years. Current glass and bottles packaging is around 50% lighter than it used to be. Boundaries are still being pushed to create more sustainable glass bottles and plastic bottles.

The company should continue to increase the recyclability and recycled content of glass packaging, as ensuring the glass manufacturing process is as carbon efficient as possible, remain the priorities.

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#### TABLE FOR DETERMINING SAMPLE SIZE FROM A GIVEN POPULATION

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368

140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Source: Krejcie & Morgan (1970, as cited by Amin, 2005).

Note: N is population size. S is sample size.

# QUESTIONNAIRE FOR HARRIS INTERNATIONAL (U) LTD STAFFS

Dear Respondents,

I am a student of Kyambogo University pursuing a Master degree of Science in Supply chain management. Am carrying out a research on "PACKAGING INNOVATION AND SALES TURNOVER IN SOFT DRINKS INDUSTRIES; selecting Harris International (U) Ltd. As a case study" you are requested to participate in this study and provide data for academic purposes only and will be treated with utmost confidentiality. Kindly spare some of your valuable time to answer these questions by giving your views where necessary or ticking one of the alternatives given.

#### **SECTION A:**

**BACKGROUND INFORMATION** 

1. Gender	
Male F	emale
2. Please specify the dep	partment you belong to
3. Duration of service at	Harris International (U) Ltd.
a) Less than one year [	b) One year
e) At least 10 years [	

. Highest qualifications obtained	
) Diploma	
) Professional Qualifications e) Master's Degree f) Others	
. Marital Status	
) Married	
) Other	

### **SECTION B:**

### PACKAGE INNOVATION

In this section, please tick the box that corresponds to your opinion/ view according to a five likert scale where by 1= strongly agree, 2=Agree, 3=Not sure, 4= strongly disagree, 5= Disagree.

# PACKAGING INNOVATION AND REVENUES OF HARRIS INTERNATIONAL (U) LIMITED

No	Statements	1	2	3	4	5
1	Packaging innovations in form of colour affects company's revenue					
2.	At Harris International (U) limited, Packaging innovation in form of colour increases revenues					
3	At Harris International (U) limited, the sizes we use increases					
4	Packaging innovation in form of design is a clear indicator of revenue generation in our company.					
5	We always use design innovation to cope up with the changing technology.					
7	We consider customer preference and revenue generation while colouring our products					
8	Some coloured beverages are not liked by our customers hence an effect on our revenue					
9	New brand flavors of soft drinks constantly appeared on the market					

	packed in different colours			
10	Packaging innovations reduces our revenue			
11	Packaging innovations has a significant effect on our revenue			
12	Packaging innovations does not affect our revenue			
13	The sizes we use in Harris international affects our revenue			
14	Improvements in packaging increases the levels of profitability			

## **SECTION C:**

# EFFECT OF PACKAGING INNOVATION ON TOTAL UNITS OF STOCK SOLD IN HARRIS INTERNATIONAL (U) LIMITED

In this section, please tick the box that corresponds to your opinion/view according to a five likert scale where by 1= strongly agree, 2=Agree, 3=Not sure, 4= strongly disagree, 5= Disagree.

No	Statement	1	2	3	4	5
1	At Harris international, packaging innovation in form of size allows					
	the beginning inventory and the ending inventory to be presented in					
	the financial reports with a valuation.					
2	Packaging innovation facilitates the flow of inventory in a company					
	during a sales period.					
3	At Harris international when inventory grows faster than sales and					
	profits drop due to Packaging innovation.					
4	Rapid sales turnover due to Packaging innovation is one of the					
	important ingredients in the success of our company.					
5	At Harris international, an increase in raw materials and work-in-					
	process can provide a signal that Packaging innovation influence sales					
	turnover.					
6	At Harris international, we usually check the present year's financial					
	statements for a listing of the ending inventory at the end of the sales			-		
	period.					

At Harris International, we compute the number of units sold by total
valuation by dividing the amount of inventory sold off during the
calculation period by the price to produce each unit individually
Packaging innovation influences sales turnover of Harris International

### **SECTION D**

# WAYS OF IMPROVING AND SUSTAINING MODERN PACKAGING INNOVATION TO IMPROVE SALES TURNOVER

In this section, please tick the box that corresponds to your opinion/ view according to a five likert scale where by 1= strongly agree, 2=Agree, 3=Not sure, 4= strongly disagree, 5= Disagree.

No	Statement	1	2	3	4	5
1	At Harris international, we usually carry out a comprehensive analysis					
	in packaging innovation in order to improve sales turnover					
2	Our packaging innovation system uses updated technology which can				-	
	improve sales turnover					
3	At Harris international we use different processing and distribution					
	sectors in packaging innovation					
4	We usually consider the cost of packaging in the right perspective					
5	Harris international, employs qualified packaging innovation					
	managers with the aim of improving sales turnover					
6	At Harris international, we usually change the packaging design					
	basing on customer requirements.					
7	At Harris International, we usually considered NBS in Packaging					

**THANKS**