International Academy Journal of Management, Marketing and Entrepreneurial Studies



Volume 8, Issue 1, PP 22-37, ISSN: 2382-7446, February, 2020 Double Blind Peer Reviewed International Research Journal asasubmitpaper@gmail.com ©Academic Science Archives (ASA)

Technology and Market Performance of Bottled Water Manufacturing Bottled Water Manufacturing Companies in Port Harcourt, Nigeria

Charles, Sopiriala Opuene and Dr. H. Ejo-Orusa

Department of Management, Faculty of Management Sciences, Rivers, State University, Nkpolu-Oroworukwo, PMB 5080, Port Harcourt, Nigeria

Abstract: This study examined the relationship between technology and market performance of bottled water manufacturing companies in Port Harcourt. This study adopted the cross sectional research design and data were drawn using structured questionnaire from 48 top and middle level managers of 15 bottled water manufacturing companies in Port Harcourt. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient with the aid of Statistical Package for Social Sciences version 23.0. The tests were carried out at a 95% confidence interval and a 0.05 level of significance. The study finding revealed that there is a significant relationship between technology and market performance of bottled water manufacturing companies in Port Harcourt. The study thus recommends that managers of bottled water manufacturing companies and create brand awareness. This is because technology has a positive impact on market performance.

Keywords: Technology, Marketing Performance, Brand Awareness, Customer Retention

© 2020. Charles, Sopiriala Opuene and Dr. H. Ejo-Orusa. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License http://creativecommons.org/licenses/by-nc/4.0, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

INTRODUCTION

The desire of firms to improve their performance in the market is the paramount push behind all managerial decisions and strategy because the market performance of the firm is cardinal to the corporate wellbeing of the business undertakings and also determines the continued existence of the firm in the business landscape (Horsfall & Mac-Kingsley, 2002). Market performance has thus continued to enjoy very attractive investigations from practitioners and academics (Clark, 1999). Efforts have been made to determine how organizational marketing programmes affect various aspects of the market performance, thus with a view to determine the core drivers of market performance, several studies have been conducted (Ateke & Iruka, 2015; Adejoke & Adekemi, 2012: Asiegbu, Awa, Akpotu & ogbonna, 2011). Managers have realized that it is no longer enough to just provide a value offering to marketplace, and amass tangible assets; but they must also consider their brands as significant intangible assets (Liu, Hu & Grimm, 2010).

Rouse and Daellebach (2009) argued that for a firm to advance its performance, it must comprehend and ascertain its main resources that will improve its competitiveness and sustainability. The study established that a firm's skills, strategic positioning and intangible technological resources results to superior performance and that they aid the firm in formulating and implementing strategies that can improve effectiveness and efficiency of the firm. Barney and Hesterly (2010) advanced that intangible technology resources are more sustainable than tangible resources which can be acquired and duplicated by competitors. In addition, Kenneth, Anderson and Eddy (2010) pointed out that a firm has an advanced performance when it has the capability of maintaining VRIN resources for a number of years.

According to Barney (2011) a firm's performance superiority is not from one source but from a package of resources both tangible and intangible. Tangible resources such as physical building and land would only result to a temporal competitive advantage which is inadequate in the long run since the competitors are in a position to obtain crucial resources through substitutes, hence eliminating above average profitability of a firm. Technology as an Intangible resource is able to produce superior performance since they are valuable, rare, inimitable and non-substitutable (Costa, Cool & Dierick, 2013). Baker and Sinkula (2009) indicated that for a long time, technology has been identified as the key for commencing novel activities through risk-taking and firm proactively which results in a firm's higher performance than competitors. Firms that focus on technological advancement through innovation research and development generate above average performance (Paladino, 2009; Merlo and Auh, 2009 and Tajeddini, 2010). Firms that employ technology are known for superior performance because they believe in acquisition of new technologies for product innovation, research and development which enables the firm to produce unique products which are hard to copy (Altindag, Zehir and Acar, 2010). Basile (2012) noted that technology deserves consideration since it pursues opportunities and renewal of new market from the areas of operation that are existing to match with the changing needs of the customers in the market. This study therefore examines the relationship between technology and market performance of bottled water manufacturing bottled water manufacturing companies.

Furthermore, this study was also be guided by the following research questions:

- 1. What is the relationship between technology and improved customer service of bottled water manufacturing companies in Port Harcourt, Nigeria?
- 2. What is the relationship between technology and customer retention of bottled water manufacturing companies in Port Harcourt, Nigeria?
- 3. What is the relationship between technology and brand awareness of bottled water manufacturing companies in Port Harcourt, Nigeria?

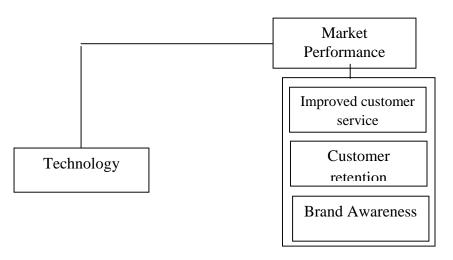


Fig.1: Conceptual Framework for the relationship between technology and market performance *Source:* Author's Desk Research, 2019

LITERATURE REVIEW

Theoretical Foundation Resource Based View Theory

The resource based view (RBV) is a management tool used to evaluate the resources available in the firm. In essence, the resource-based view is based on the idea that the effective and efficient application of all useful resources that the organization can gather helps determines its competitive advantage. It seeks to explain the internal sources of a firm'ssustained competitive advantage it must proposition is that if a firm is to attain a state of sustainable competitive advantage it must obtain and control valuable, rare, inimitable, and non- substitutable (VRIN) resource and capabilities, plus have the firms in the place that can absorb and apply them (Barney, 1991).

The resource base view as a foundation for the competitive advantage of a firm is rooted primarily in the application of a bunch of valuable tangible or intangible resources at the organization's disposal (Wernerfelt, 1984). Wernerfelt in his 1984 paper titled "A resource based view of the firm" argued that the success of a firm in its product market was a result of its advantages in the factor market (or resources). Hamel &Prahalad, (1980) gave a practical approach to the resource-based view, by calling them the 'core competence of the corporation'. They also clarified that to add value to the firm, resources must be inimitable. Barney identified four characteristics of resources that would be required to generate sustainable competitive advantage to firms - resources must be valuable, rare, inimitable and non- substitutable (VRIN) (Barney, 1991).

Company's strategy is a vital part of the firm's organizational system that will play a crucial role in improving the business performance. The production of goods and services as well as wealth creation is dependent on the resources available to the organization especially the intangible assets (Husnah, Subroto, Djumahir&Aisjah, 2013). Intangible asset and effective management are sources of competitive advantage. This has pushed most firms to improve the performance of its non- monetary assets because the strategy influences the overall performance of the company significantly (Choo&Bontis, 2002). It's been argued by experts that intangible resources are more able to generate sustainable competitive advantage (Hitt, Ireland &Hoskisson, 2014). Intangible resources are strategic assets to achieve SCA (sustainable competitive advantage) because it meets the criteria of Valuable, Rare, Imperfectly Imitable, non-substitutable (VRIN) (Barney, 1991).

This model relates to the study in that it illustrates how firm performance is rooted primarily in the application of a bunch of valuable tangible or intangible resources at the organization's disposal. It further relates by explaining how intangible asset and effective management are sources of competitive advantage for the firm. Furthermore, it shows how firms improve the performance of its non-monetary assets, because the strategy influences the overall performance of the company significantly.

Technology

The term "technology" rose to prominence in the 20th century in connection with the second industry revolution. Bain (1937), the America sociologist wrote that "technology includes all tools, machines, utensils, weapons, instruments, housing, clothing, communicating and transporting devices and the skills by which we produce and use them". Bain's definition remains common among scholars today, especially social scientists. Scientists and engineers usually prefer to define technology as applied science, rather than as the things that people make and use.

Technology is also an application of science used to solve problems. But it is vital to know that technology and science are different subjects which work hand-in-hand to accomplish specific tasks or solve problems (Ramey, 2013). While Woodward (1965) viewed technology as a mediating variable between an organisation and its environment.

Many businesses are using technology to stay competitive, they create new products and services using technology, and they also use technology to deliver those products and services to their customers on time and within budget. A good example is mobile phones companies like Apple & Samsung, these mobile empires, use high-end technology to create new smart phones and other electronic devices to stay competitive. This competitive edge is gained through employing advanced technology (Ramey, 2013).

Advanced Manufacturing Technologies (AMT)

The quest for lower operating costs and improved manufacturing efficiency has forced a large number of manufacturing firms to embark on AMTs projects of various types. Dramatic developments in AMT at various organizational levels can be attributed to numerous benefits that improve the competitive position of the adopting companies. AMT impact not just manufacturing, but the whole business operations, giving new challenges to a firm's ability to manage both manufacturing and information technologies (Gunawardana, 2006). Owing to the intense global competition in manufacturing, manufacturing companies, therefore, are forced to undergo a period of transformation in order to compete more effectively. Under these circumstances, AMT is considered as a means of improving competitiveness (Gunawardana, 2006).

Baldwin (1995) defines AMT as 'a group of integrated hardware-based and software-based technologies, which if properly implemented, monitored, and evaluated, will lead to improving the efficiency and effectiveness of the firm in manufacturing a product or providing a service'.

Advanced Manufacturing technology (AMT) represents a wide variety of mainly computerbased systems, which provide adopting firms with the potential to improve manufacturing operations greatly. It is generally expected that the resultant improvement in operational performance will enhance the firm's ability to reap the underlying marketing, strategic and business benefits for which the systems were adopted. Another definition is AMT refers to a family of technologies that include computer-aided design (CAD) and engineering systems, materials resource planning systems, automated materials handling systems, robotics, computercontrolled machines, flexible manufacturing systems, electronic data interchange and computerintegrated manufacturing systems (Gunawardana, 2006).

Concept of Market Performance

Collins dictionary of business (2005) define market performance as the effectiveness of suppliers in a market/ industry in utilizing economic resource to their maximum efficiency and to the ultimate benefit of consumers. Lusch and Laczniak (1989) define business performance as the total economic result of the activities undertaking by the organization.

It has been argued that, non-financial measures such as customer satisfaction, service quality, customer retention, brand awareness are more valuable in evaluating and motivating managerial performance, which complements short-run financial figures as an indicator of progress toward firms' long-term goals and is more reflective of the overall corporate strategy (Ittner and Larcker, 2003).

Measuring performance has been a cardinal issue for enormous majority of companies (Morgan, Clark &Gooner, 2002). Business practitioners and academics have both been attracted to the topic with an insistence and intentions previously unexampled (Clark, 1999). A wide range of measurement has been adopted to operationalize performance. For example, Narver and Slatter (1994), identified key indicators as return-on-investment, market share and sales growth, Nwokah (2008), used sales growth, profit ability, and market share, and Didia and Nwokah (2015), employed sales growth, customer retention, return on investment, market share, getting valuable information, ability to secure local resource and motivating employees as proxies of business performance. This study adopts improve customer service, customer retention and brand awareness, a non-financial measures as cited in Ahiazu&Asawo (2016) as the measures of market performance.

Improved Customer Service

The success of companies has for long been influenced by a number of factors, such as, the location of the company, capital, pricing system and marketing skills of the workers of the company. However, today, the quality of a company's customer service has a great impact vis-a-vis the success of companies (Atem, 2014). Customer service can be defined as "a series of activities designed to enhance the level of customer's satisfaction". These activities may include the provision of assistance, advice and delivery of products by the company to its customers (Mckinney, 2014). Customer service is provided to consumers/clients/buyers of a company, before, during and after the purchase of goods and services (Bielenberg, 2006). Quality/excellent customer's expectations'. Quality customer service is vital to a business' success as customers are the "lifeblood" for any business (Mckinney, 2014). The goal of excellent customer service is to make customers contended, in order for them to come back and to bring more customers (Ciotts, 2012).

Machando and Diggines (2013) defines customer service as the totality of what an organisation does to add value to its products and services from the perspective of customers.Lucas (2005) describes customer service as the ability of knowledgeable, capable and enthusiastic employees to deliver products and services to their internal and external customers in such a way that it satisfies identified and unidentified needs of customers, and ultimately, results in positive word of mouth advertising and repeat business. It is the interaction that takes place between somebody from the company and the customer and that it is not limited to sales, for example, but links to all tasks and functions in a company (Fogli, 2006).

Customer service is the provision of services to customers before, during and after a purchase. Essentially, customer service is any back-up service that a company provides to customers to maintain their loyalty and to secure sales. It must be kept in mind that it is not the actual service that is of importance, but rather the perception that a customer has of the service (Brink and Berndt, 2008). The role of customer service is to provide 'time and place utility' in the transfer of goods and services between buyer and seller. It follows that making the product or service 'available' is what, in essence, a company's distribution function business entails. 'Availability' is, in itself, a complex concept impacted upon by a galaxy of factors, which together constitute customer service (Christopher, 2005).

Looking at the above definitions of customer service from various authors, customer service involves meeting and exceeding the expectations of customers. In order to achieve this, a company has to determine what customers' expectations are. It is clear that providing excellent customer service is not something that can be done in an ad-hoc manner or be seen as a passing phase. It would be inefficient for a company just to focus on customer service for a short time and then consider it done. Providing excellent customer service needs to be a focal point for any company and must form an integral part of a company's total product offering, behaviour and business culture (Jeske, Chimusoro &Karodia, 2015).

Achieving excellent customer service is a continuous process that never stops. Any company that has any business sense will continuously re-design, tweak and improve its customer service. In a similar way, a company's customers' expectations will also develop and evolve over time, making it essential that service delivery coincides with those expectations. Companies must continuously make an effort to also make sure that a company asks customers about their expectations and needs to ensure that they use this information as guidelines to improve and modify their business or service model accordingly (Jeske, Chimusoro &Karodia, 2015).

Customer Retention

Kotler and Amstrong (2001), state that in the past many companies took their customers for granted. Companies practiced a "leaky bucket" approach to marketing. Meaning companies could keep filing the marketing bucket with new customers without worrying about losing old customers through holes in the bottom of the bucket. However in Nigeria today, changing demographics, more sophisticated competitors, sophisticated buyers means that there are fewer customers to go around. Kotler (1999) noted that, companies are realizing that losing a customer means losing more than a single sale; it means losing the entire stream of purchases that the customer would make over a lifetime of patronage.

As customers begin to experience a better service their expectation rises; the customers begin to make conscious and unconscious comparisons between different service experiences irrespective of the industry sector. Cook (2002) states that, a company's ability to attract and retain new customers therefore is a function not only of its product or product offering but also the way it services its existing customers and the reputation it creates within and across market places. Strauss and Friege (2001) defined retention as the customer's liking, identification, commitment, trust, willingness to recommend, and repurchase intentions. Customer retention implies a long-term commitment on the part of the customer and the firm to maintain the relationship. Cook (2002), indicate underlined statistics that shows just how crucial retaining customers can be; reducing customer defections can boost profits by 25-85 per cent (Reichheld, 1996). The price of acquiring new customers can be five times greater than the cost of keeping current ones.

Retaining old customer cost less than acquiring new ones. Old customers pay less attention to competing brands and advertising, are less price sensitive and create favorable word-of-mouth (Desai & Mahajan, 1998). Customer retention has been advocated as an easier and more reliable source of superior performance (Reichheld and Sasser, 1990). Customer retention brings benefits such as employee retention and satisfaction, better service, lower costs (Riechheld& Kenny, 1990), lower price sensitivity, positive word of mouth, higher market share, higher efficiency and higher productivity (Zineldin, 2000). While the precise meaning and measurement of customer retention can vary between industries and firms there appears to be a general consensus that focusing on customer retention can yield several economic benefits (Dawkin& Reichheld,1990; Reichheld et al., 1990). As customer tenure lengthens, the volumes purchased grow and customers churn, customer replacement costs fall. Finally, retained customers may pay higher prices than newly acquired customers, and are less likely to receive discounted offers that are often made to acquire new customers. All of these conditions combine to increase the net present value of retained customers. Kotler (1999) states that the cost of attracting a new customer is five times the cost of keeping the current customer happy. It requires a great deal of effort to induce satisfied customers to switch away from their current suppliers. There are two ways to strengthen customer retention, one is to erect high switching barriers and the other is to deliver higher customer satisfaction. In terms of attracting and retaining customers, firms are reminded to be aware of the different "loyalty coefficient" - the amount of economic forces needed to move different kinds of customers. The easiest to win is likely to be the one who will be the quickest to defect. According to Reichheld (1996), the customers who glide into your arms for a minimal price discount are the same customers who dance away with someone else at the slightest enticement.

Brand Awareness

Brands have been used for centuries to distinguish the products or services of different companies from each other. In principle, whenever a marketer creates a new name, symbol or logo for a new product, he or she created a brand (Keller, 2008). Brand is a multi dimensional phenomenon which is traditionally defined as name, symbol, concept, sign, or some other feature (Malmelin & Hakala, 2008). The meaning of that is to distinguish the product or a service from competitors (Keller, 2008). Creating differences is what branding is all about (Kotler & Keller, 2016). Brands basically create perceptions in the mind of the consumer that it is unique and there is no other similar product or service in the market. Therefore, a brand is said to be of strong entity if it is consistent over a long period of time in providing the product or service which consumers and prospective purchasers can rely and trust, which will lead to a brand promise (Srinvasan, Park & Chang, 2005).

Technology and Improved Customer Service

According to Taylor (2017), customer service is the lifeblood of any organization, and it is not just a department but must be the attitude of the entire company. Employees can be trained to provide the best service possible to the customer. However, if the technology is not adequate, customers, and employees, will quickly become disheartened and frustrated. A frustrated customer (or employee) can lead to lower company revenues through lost sales or lost productivity. Technology used properly, can help employees work more efficiently and ease customer frustrations.

Dussauge, Hart and Ramanantsoa (1992) note that "technological innovation often modifies the base of competition in a given industry and technology is, in many cases, one of the main sources of competitive advantage". They also note that "firms can use technology to place themselves in a favourable position by deliberately upsetting the competitive environment, forcing a redefinition of the existing business and a change in the rules of the game. Also, Frank and Oluwafemi (2012) found that information technology influences customer satisfaction by reducing transaction time, improving operational effectiveness, reducing the running cost and ushering in swift response in service delivery.

Technology and Customer Retention

Daneshvar and Ramesh (2010) said that information technology can help promote cost leadership by providing valuable new service inexpensively. Also, Intellitrend (2013) opines that information technology has helped many businesses to eliminate unwanted processes that delay production of products with the use of automations. Karmarka and Mangal (2007) argue further that information technology has made shopping convenience for customers as the time and efforts required to visit the brick-and-mortar had been reduced by the introduction of e-shops. Prior research by Yoon (2009) found that adoption of information technology improves business processes, ensures faster delivery to customers, thereby it impacts customers' confidence, satisfaction and retention.

Technology and Brand Awareness

According to smith (2011) technology doesn't just give people a new way of doing things; it gives people a new way of thinking. The biggest impact of technology is the change it creates in people's perceptions. Certainly, technology expands access speed and productivity but technology has much more far- reaching effects. Majure (2015) argue that a couple of decade ago companies looking to reach a national audience would have to spend millions on television and print advertising, direct mail or catalogues. Reaching a global audience was unthinkable for all but the largest multinational brands. All that has changed. Today virtually any brand owner large or small can reach customers and prospects around the world with minimal investment. The barriers to market entry have not merely been lowered- they have been obliterated.

The investigation of Khan, Jadoon and Tareen (2016) submit that consumers commitment toward buying, both current and future is affected by brand awareness. Zhao, Tong, Li,Ma and Wang (2016) indicated a significant positive connection exist between technology brand awareness and brand loyalty. Furthermore Tritama and Tarigan (2016) found that technology via social media has significantly impacted company's brand awareness

From the foregoing point of view, the study hypothesized thus:

- **Ho1:** There is no significant relationship between technology and improved customer service of bottled water manufacturing companies in Port Harcourt, Nigeria.
- **Ho₂:** There is no significant relationship between technology and customer retention of bottled water manufacturing companies in Port Harcourt, Nigeria.
- **Ho₃**: There is no significant relationship between technology and brand awareness of bottled water manufacturing companies in Port Harcourt, Nigeria.

METHODOLOGY

This study adopted the cross sectional research design and data were drawn using structured questionnaire from 48 top and middle level managers of 15 bottled water manufacturing companies in Port Harcourt. The reliability of the instrument was achieved by the use of the Cronbach Alpha coefficient with all the items scoring above 0.70. The hypotheses were tested using the Spearman's Rank Order Correlation Coefficient with the aid of Statistical Package for Social Sciences version 23.0. The tests were carried out at a 95% confidence interval and a 0.05 level of significance.

DATA ANALYSIS AND RESULTS

The level of significance 0.05 was adopted as a criterion for the probability of accepting the null hypothesis in (p > 0.05) or rejecting the null hypothesis in (p < 0.05).

Ho₁: There is no significant relationship between technology and improved customer service of bottled water manufacturing companies in Port Harcourt, Nigeria.

	custom	er service			
		C	orrelations		
				Technolog y	Improved customer service
Spearman's rho	Technology		Correlation Coefficient	1.000	.705**
			Sig. (2-tailed)		.000
	т 1		N C 1.4	$48 \\ .705^{**}$	48
	Improved c service	customer	Correlation Coefficient	.705	1.000
			Sig. (2-tailed)	.000	
			N	48	48
**. Correlation is	significant at the 0	.01 level (2-tailed).		

Table 1: Correlation analysis showing the relationship between technology and improved customer service

Source: SPSS Output based on 2019 field survey data

The result as shown in correlation matrix (Table 1) revealed that technology has a very strong positive relationship with improved customer service with a correlation value of r = .705 and shows probability/significant value (PV) of .000 which is less than (<) 0.05 (level of significance). Hence the previous tentative statement of no relationship is rejected. Therefore the researcher accepts the alternative hypothesis that a significant relationship exist between technology and improved customer service.

Ho₂: There is no significant relationship between technology and customer retention of bottled water manufacturing companies in Port Harcourt, Nigeria.

		Correlations		
Spearman's rho	Technology	Correlation Coefficient	Technolo gy 1.000	Customer retention .586 ^{**}
mo		Sig. (2-tailed)	48	.000 48
	Customer retention	Correlation Coefficient	.586**	1.000
		Sig. (2-tailed)	.000 48	48

Table 2: Correlation analysi	s showing the relationship	b between technology and customer
retention		

Source: SPSS Output based on 2019 field survey data

The result as shown in correlation matrix (Table 2) revealed that technology has a substantial and positive relationship with customer retention with a correlation value of r = .586 and shows probability/significant value (PV) of .000 which is less than (<) 0.05 (level of significance). Hence the previous tentative statement of no relationship is rejected. Hence the previous tentative statement of no relationship is rejected. Therefore the researcher accepts the alternative hypothesis that a significant relationship exist between technology and customer retention.

Ho₃: There is no significant relationship between technology and brand awareness of bottled water manufacturing companies in Port Harcourt, Nigeria.

Correlation and	arysis snowing the	relationship between te	echnology and	brand awarenes
		Correlations		
			Technolo	Brand
			gy	awareness
Spearman's	Technology	Correlation	1.000	$.798^{**}$
rho		Coefficient		
		Sig. (2-tailed)		.000
		N	48	48
	Brand	Correlation	$.798^{**}$	1.000
	awareness	Coefficient		
		Sig. (2-tailed)	.000	
		N	48	48
**. Correlatio	n is significant at t	he 0.01 level (2-tailed).		
a anaa				

Correlation analysis showing the relationship between technology and brand awareness

Source: SPSS Output based on 2019 field survey data

The result as shown in correlation matrix (Table 3) revealed that technology has a very strong positive relationship brand awareness with a correlation value of r = .798 and shows probability/significant value (PV) of .000 which is less than (<) 0.05 (level of significance). Hence the previous tentative statement of no relationship is rejected. Hence the previous

tentative statement of no relationship is rejected. Therefore the researcher accepts the alternative hypothesis that a significant relationship exist between technology and brand awareness.

DISCUSSION OF FINDINGS

Technology and Improved Customer Service

The result shows there is a strong positive relationship (Rho (P) = .705) between technology and improved customer service of bottled water manufacturing companies. This indicates that technology affects improved customer service. When put in statistical test, the result shows that there is a significant relationship between technology and improved customer service. This implies that technology increases customer service. To further buttress this finding, James (2018) found that information and communication technology has resulted in faster processing of customer requests, easy access to banking information and services, reduction of errors, provision of timely services and transaction alerts, among other benefits. Similarly Garuba (2010) found that technology by way of e-banking has led to increase customer satisfaction, improved operational efficiency, reduced transaction time, better competitive edge, reduced running cost and ushered in swift response in service delivery.

Technology and Customer Retention

The result shows there is a substantial positive relationship (Rho (P) = .586) between technology and customer retention of bottled water manufacturing companies. This indicates that technology affects customer retention. When put in statistical test, the result shows that there is a significant relationship between technology and customer retention. To explain this finding, Tsai, Chung Lin & Chang purported that information technology enhances customer's feedback, and it sets the stage for a two-way communication effort. For example, follow up with a customer after a business transaction proves to customers that the company wants to hear from them. They therefore conclude that, information technology strongly ensures customer loyalty and retention. Similarly, Prior research by Yoon (2009) found that adoption of information technology improves business processes, ensures faster delivery to customers, thereby it impacts customers' confidence, satisfaction and retention. Desai & Mahajan (1998) further suggested that, in other to retain customers, companies must continually develop their product and services so as to meet the evolving needs of customers, and this can be achieved through the adaptation of technology in the production process.

Technology and Brand Awareness

The result shows there is a strong positive relationship (Rho (P) = .798) between technology and brand awareness of bottled water manufacturing companies. This indicates that technology affects brand awareness. When put in statistical test, the result shows that there is a significant relationship between technology and brand awareness. This implies that technology increases brand awareness. To confirm this finding, the study conducted by Zhao *et al.* (2016) found a significant positive relationship between technology, brand awareness and brand loyalty. To further support this finding, Tritama *et al.* (2016) found that technology via social media has significantly impacted company's product brand awareness.

CONCLUSION AND RECOMMENDATIONS

The study concludes that technology was seen to have a significant positive relationship with market performance that is, it positively impacts; improved customer service, customer retention and brand awareness.

The study thus recommends that managers of bottled water manufacturing companies should embrace technology in order to cut cost, reduce transaction time, get feed backs from customers and create brand awareness. This is because technology has a positive impact on market performance.

REFERENCES

- Ahiauzu, A., & Asawo, S. P. (2016). *Advanced social research methods*. Port Harcourt: CIMRAT, Publications.
- Adejoke, K.B., & Adekemi, A.O. (2012), Relationship marketing and bank performance: An applied study of commercial banks in south western Nigeria. *European Journal of Business and Management*, 410, 102-110.
- Altindag, E., Zehir, C. & Acar, A.Z. (2010). Strategic orientations and their effects on firm performance turkish family owned firms. *Journal Eurasian Business Review*, 1. 18-36.
- Asiegbu, I.F., Awa, H.O., Akpotu, C. & Ogbonna, U.B. (2011), Sales force competence development and marketing performance of industrial and domestic products firms in Nigeria. *Far East Journal of Psychology and Business*, 2(3), 43-59.
- Ateke, B.W. & Iruka, H.C. (2015). Investigating the relationship between customer involvement management and marketing performance in the manufacturing industry. *International Journal of Research in Business Studies and Management*, 2(9), 22-34.
- Bain, R. (1937). Technology and state government. American sociological review, 2(6), 860-900.
- Baker, W.E. & Sinkula, J.M. (2009). The complementary effects of market orientation and entrepreneurial orientation on profitability in small businesses. *Journal of Small Business Management*, 47, 443–464.
- Basile, A. (2012). Entrepreneurial Orientation in SMES: Risk-taking to entering international markets. *Journal Far East Journal of Psychology and Business*, 7, 87-103.
- Barney, J. B. (2011). Gaining and sustaining competitive advantage (4th ed.). Upper Saddle.
- Barney, J. B, & Hesterly, W.S (2010).Strategic management and competitive advantage concept. Upper saddle River, N.J: Pearson Prentice Hall.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.
- Bielenberg, D. (2006). The financial impact of bad customer service. *Credit Control Journal*, 27-48.

- Brink, A., & Berndt. (2008). *Relationship marketing and customer relationship management*. Cape Town: Juta.
- Businessdictionary. (2019, May 05). *Cost leadership*. Retrieved fromBusinessdictionary.com: http://www.businessdictionary.com/definition/cost-leadership.html
- Choo, W., & Bontis, N. (2002). The strategic management of intellectual capital and organizational knowledge. New York: Oxford University Press.
- Ciotts, G. (2012, May 5). 5 Warning Signs That Your Customer Service Truly Sucks. Retrieved from Helpscout.net: http://www.helpscout.net/blog/5-warning-signs-that-your-customers-service-sucks)
- Clark, B.H. (1999). Marketing performance measures: History and interrelationships. *Journal of Marketing Management*, 15, 711-732.
- Christopher, M. (2011). Logistics & supply chain management (4th ed.). Great Britain: Pearson Education.
- Collins Dictionary of Business, 3rd ed. (2002, 2005). Retrieved February 5 2019 from <u>https://financial-dictionary.thefreedictiionary.com/market+performance</u>.
- Cook, S. (2002). *Customer care excellence- How to create an effective customer focus* (4th ed.). London: Kogan Page Limited.
- Costa, A.L., Cool, K. & Dierickx, I. (2013). Competitive implication of deployment of unique resources, *Strategic Management Journal*, 34, 445-463.
- Daneshavar, P., & Ramesh, H. (2010). Review of information effect on competitive advantage strategiic perspective. *Internation Journal of Engineering Science and Technology*, 2 (11), 6248-625.
- Dawkins, P., & Reichheld, F. (1990). Customer retention as a competitive weapon. *Directors* and Broard, 42-51.
- Desai, K., & Mahajan, V. (1998). Strategic role of affect-based attitudes in the acquisition, development, and retention of customers. *Journal of Business Research*, 309-324.
- Didia, J.U.D & Nwokah, N.G. (2015). Human resources integration and market performance in the telecommunication industry in Nigeria. *Journal of Resource and Development Management*, 10, 128-135.
- Dussauge, P., Hart, S., & Ramanantsoa, B. (1992). *Strategic technology management*. Chichester, UK: John Wiley & Sons.
- Fogli, L. (2006). *Customer service delivery: Research and best practices*. San Fransisco: Jossey-Bass.
- Frank, I., & Oluwafemi, J. (2012). Impact of technology on Nigeria banking industry: A case study of Skye Bank. International Journal of Computing Academic Research (IJCAR), 1 (1), 25-35.

- Garuba, A. (2010). Cash lodgement in the Nigerian banking industry. *Journal of Social Sciences*, 20-26.
- Gunawardana, K. D. (2006). Introduction of advanced manufacturing technology: A literature review. *Sabaragamuwa University Journal*, *6*(1), 116-134.
- Hamel, G., & Prahalad, C. K. (1980). The five generic competitive strategies.
- Hitt, M., Ireland, R., & Hoskisson, R. E. (2014). *Strategic management : Competitiveness and globalization* (11th ed.). USA: Cencage Learning.
- Horsfall, H & Mac-Kingsley, I. (2018). Brand equity and market performance: An empirical study of food and beverage firms in Rivers State. *Journal of Economics and Business Management*, 4, 1-14.
- Husnah, B., Subroto., Djumahir., & Aisjah, S. (2013). Competitive strategy role in developing SMEs with RDV perspective: A literature Review. *International Journal of Business and Behavioural Science*, *3*.
- Ittner, C., & Larcker, D. G. (2003). Coming up short on non financial performance measurement. *Harvard Business Review*, 88-95.
- James, T. (2018). Effect of information and communication technologyon service delivery in commercial banks in Kenya. *IOSR Journal of Business and Management*, 20(6), 27-34.
- Jeske, H., Chimusoro, E., & Karodia, A. M. (2015). An evaluation of customer service and the impact of efficiency on Namibia's logistical sector: A study involving selected courier companies. Singaporean Journal of Business Economics and Management Studies, 3(6), 1-38.
- Upper Saddle River, NJ: Prentice Hall.
- Karmarkar, S. U. and Mangal, V. 2007. Information technology impact on business practices: The Ucla Bit Project. *Annals of Information Systems*, 1(2), 385-412.
- Keller, K. L. (2008). *Strategic brand management: Building, measuring, and managing brand equity (3rd ed.)*. Upper Saddle River, NJ: Prentice Hall
- Kenneth, S., Anderson & Eddy, G. (2011). Creating SCA: RBV analysis of Ganzaga University Basket ball programme. *Journal of Sport Administration and Supervision*, 3 (1), 58-78.
- Khan, A., Jadoon, S., & Tareen, N. (2016). Impact of adversiting on brand awareness and commitment in female apparel Industry. *International Journal of Academic Research in Business and Social Sciences*, 6(3), 79-94.
- Kotha, S. (1991). Strategy, manufacturing structure, and advanced manufacturing technologies . Best Paper Proceedings Academy of Management, 293–297.
- Kotler, P. (1999). Marketing management. India: Prentice Hall .

- Kotler, P., & Armstrong, G. (2001). Principles of marketing. New Delhi: Prentice Hall.Lucas, R. (2005). Customer service: Building successful skills for the twenty-first century (3rd ed.). Boston: McGraw Hill.
- Liu, X., Hu, M.Y. & Grimme, P.E. (2010). Effect transfer in brand extensions: The role of expectancy and relevancy. *Journal of Product Brand Management*, 19, 317-326.
- Lusch, R. F, & Laczniak, G. R. (1989). Macro-environment forces, marketing strategy and business performance: A future research approach. *Journal of the Academy Marketing Science*, 17, 283-295.
- Palandino, A. (2009). Financial champions and masters of innovation; Analysis effects of balancing strategic orientation. *Journal of Product Innovation Management*, (26), 616-626.
- Machando, R., & Diggines, C. (2013). Customer service. Claremont: Juta and Company
- Majure, R. (2015). The impact of technology on brands. World Trademark Review, 50-62.
- Malmelin, N., & Hakala, J. (2008). Radikaali brändi. Helsinki: Talentum.
- Mckinney, P. (2014). Customer service: Definition, types and role in marketing. *Journal of Marketing Education*, 20-35.
- Morgan, N.A., Clark, B.H., & Gooner, R. (2002). Marketing productivity, marketing audits, and systems for marketing performance assessment: integrating multiple perspectives. *Journal of Business Research*, 55, 363–75.
- Narver & Slatter R.S. (1994), Does competitive environment moderate market orientation performance relationship? *Journal of Marketing*, 58, 46-53.
- Nwokah, N.G. (2008), Strategic market orientation and business performance. *European Journal* of Marketing. 42 (314), 279-289.
- Ramey, K. (2013). What is technology- meaning of technology and its use. *Journal of Technology Usage*, 12-32.
- Reicheld, F. F. (1996). *The loyalty effect: The hidden force behind growth, profits, and lasting values.* . Boston, MA: Harvard Press.
- Reichheld, F.F. and Sasser, W.E. (1990), Zero defections: quality comes to services. *Harvard Business Review*, 68 (9/10) 105-11
- Rousse ,M. J & Daellenbach, U.S. (2009). Rethinking research methods for RBV perspective; Isolating the of SCA. *Strategic Management Journal* 20 (5), 487-494.
- Smith, W. (2011, November 12). *The impact of technology on brand marketing*. Retrieved April 5, 2019, from Branding Strategy Insider: <u>http://www.brandingstrategyinsider.com/2011/11/the-impact-of-technology-on-brand-marketing.html</u>

- Srinivasan, V. P., & Chan, D. R. (2005). An approach to the measurement, analysis and prediction of brand equity and its source. *Journal of Management Science*, 51(9), 1433-1448.
- Strauss, B., & Friege, C. (2001). Regaining service customers: Costs and benefits of regain management. *Journal of Service Research*, 1(4), 347-361.
- Subhani, M. I., & Osman, A. (2009). A study on the association bewteen brand awareness and consumer/ brand loyalty for the packaged milk industry in Pakistan. *Iqra* University Research Centre Journal, 1-12.
- Stryfom, J. W. (1995). Branding and brand equity. Marketing Management Journal, 130-248.
- Taylor, H. (2017). *How does technology improve customer service?* Retrieved from bizfluen:https://bizfluent.com/about-5341221-technology-improve-customer-service.html
- Tritama, H., & Tarigan, R. (2016). The effect of social media to the brand awareness of a product of a company. *Journal of Communcation & Information Technology (CommIT)*, 10 (1), 9-14.
- Wernerfelt, B. (1984). A resource- based View of the Firm. *Strategic Management Journal*, 16(3), 171-174.
- Yoon, S. H. (2009). Determinants of online service satisfaction and their impacts on behavioural intentions. Google Book.
- Zeithaml, V. A., & Bitner, M. J. (1996). Services Marketing. Singapore: Mc Graw-Hill.
- Zhao., Tong., Li., Ma., & Wang. (2016). Impact of brand awareness and customer experience on the brand loyalty on MI. *Global Congress on Manufacturing Management (GCMM), China*, 20-35.
- Zineldin, M. (2000). Total relationship marketing . Lund: Student Literature.