Effects of Competitive Intelligence Practices on Organizational Performance: A Case Study of The Aga Khan Hospital Mombasa

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Abstract

The purpose of this study was to establish the competitive intelligence practices adopted by private hospitals in Mombasa and their effect on organizational performance. The general objective of the study was to determine the effect of competitive intelligence practices on performance of The Aga Khan Hospital Mombasa. The specific objectives were: to analyze the effect of strategic alliance intelligence practice, market intelligence practice, technological intelligence practice and product differentiation practice on organizational performance of The Aga Khan hospital Mombasa. The study used descriptive research design. The study targeted 52 departmental heads of Aga Khan Hospital. Primary data was obtained through use of questionnaires. Quantitative data collected using a questionnaire was analyzed by the use of descriptive statistics while the qualitative data was analyzed using content analysis. In addition, the researcher conducted a multiple regression analysis so as to determine the relationship between the hospitals performance and the competitive intelligence practices. The study found that the hospital employed new market intelligence as a competitive intelligence. Product intelligence influenced the performance of the hospital to a great extent. The hospital-initiated activities to obtain information on technology advancement in the industry to a very great extent. Mergers in the industry and strategic alliance enhanced the performance of the company to a very great extent. The study concludes that the hospital employed new market intelligence as a competitive intelligence. Product intelligence influenced the performance of the hospital to a great extent. The hospital-initiated activities to obtain information on process automation in the firm, interconnected technology in the company, integrated systems in the industry and new software in the industry. The study recommends as follows: Aga Khan Hospital should continuously invest in marketing research to gather as much information as possible in order to remain competitive; that Aga Khan Hospital should strive to maintain existing customers and acquire new ones; that Aga Khan Hospital should make use of technology intelligence among other intelligences to increase their competitiveness in terms of innovation, customer satisfaction and market orientation; that Aga Khan Hospital should review its strategic alliances and joint ventures and maintain those that are relevant and profitable.

Key words: Intelligence, Competitive, Organizational performance, Customer Satisfaction

1. Introduction

In today’s fast-paced, high technology business environment, technological advances, competitor actions and inactions, customer and supplier intentions and behaviors, legislative activity and a host of other activities compete for a manager’s attention on a daily basis. A manager’s ability to master all of the possible consequences of these activities will directly affect the development and quality of a firm’s business and corporate level strategies. The key to any successful strategy is the ability to identify, develop and sustain a competitive advantage vis-à-vis to their competitors (Korany, 2014).

A Competitive Intelligence practice involves the collection of information, internal, external and from competitors, but also from customers, suppliers, technologies, environments, and potential business relations. Competitive Intelligence is designed to provide early warning and help to predict the moves of competitors, customers, and governments (Ghoshal & Kim, 2006). Competitive intelligence practices are actions undertaken by firms after gathering, analyzing, and distributing intelligence about products, customers, competitors and any aspect of the environment needed to support executives and managers in making strategic decisions for an organization. Competitive intelligence practices include collection of information on product differentiation, innovation, strategic alliances, technology adoption, market segmentation and other intelligence action (Aaker, 2008).
Accelerated global competitiveness, reduced product life cycles, rapid technological advancements, and dynamic customer requirements have drastically altered the nature of industrial competition. Price (cost) is no longer the sole criteria for creating a sustainable competitive advantage. Firms must develop and deploy competitive intelligence driven by market requirements. Many firms have adopted product, process, and service quality improvement as a key strategic initiative for achieving excellent performance levels. However, sustainable excellent performance will not occur if there is a misalignment between a firm’s competitive strategies and actual market requirements. In addition, globalization has caused competition to be a constant concern of organizations, by increasing the need for continuous evaluation of the competitive environment and the information coming out of it. Developments in the healthcare environment over the years have prompted changes in the way hospitals are managed (Davis, 2008). These have resulted into decreased revenue and increased competition; hospitals have responded by focusing on cost containment, marketing strategies, and human resource management (Porter & Thomas, 2013).

The African continent is slowly changing from the traditional source market to a destination market for medical tourists as foreigners travel from developed countries to seek quality medical care at relatively cheaper costs (Deloitte, 2008). This is a trend that can be exploited by countries that focus on developing medical tourism as a major economic sector. According to Mohamed (2005), a study carried out in South Africa among patients in the private healthcare sector revealed that South Africa is becoming an alternative destination for medical tourists who would earlier seek services in other continents. In the same study, the results indicated that there still existed a big gap that needed to be filled with regard to provision of healthcare that could compete in the global market. Finally, the same study pointed out that hospitality products are some of the determinants of service quality dimensions and impacts positively on patients’ loyalty.

Kenya is a major contributor in healthcare provision in the entire East and Central Africa (KNBS, 2012). With Kenyan hospitals rated to be among the best in the region, the government in partnership with the private sector can give the region an alternative destination to medical tourists who have to travel far to get the same services (KNBS, 2012). According to a survey carried out by the Ministry of Health in the year 2012, Kenya has 247 registered private hospitals distributed over the 47 counties. However, there is need to comprehensively improve on the quality of both medical and the support services in the healthcare sector to enable the country to meet the global health standards (MoH, 2011).

The healthcare sector in Kenya is slowly embracing the concept of hospitality with a number of hospitals borrowing from the principles of hospitality management particularly in the private sector. Moreover, the Kenyan’s Vision 2030 focuses on improved quality of healthcare products and services with a view of opening the country for health tourism. It’s against the above background that hospitality products are increasingly playing an important role in enhancing clients’ satisfaction and creating a competitive advantage in the healthcare industry.

2. Research Problem

The design of competitive intelligence, as a process that monitors all elements of the external environment of an organization is still recent (Baars & Kemper, 2008). The aim of competitive intelligence is management and reduction of risk, create useful knowledge, safety information and use of shared information. Organizations that use a competitive intelligence program, have better understanding of the competitive landscape (Vedder et al, 2008), and with moving towards wise strategies, they develop programs to increase their competitive advantage (Wright & Calof, 2006).

The consistent delivery of superior service is the strategy that is increasingly being offered as a key to various service providers in order to position themselves more competitively in the market. Service quality has become an edge for gaining competitive advantage over peer organizations. Customers service initiatives are thus closely related to quality service initiatives. This implies that service companies should consider variables of service quality such as reliability, responsiveness, assurance, empathy and tangibles.

With the advent of globalization, the international borders have continuously become less important in provision of healthcare services and it is much easier today for patients to seek for services across international borders. The political, economic, social cultural and technological environments continue to evolve, putting pressure on private hospitals to adjust their strategies so as to capture, keep and grow the segments of patients seeking healthcare international borders. According to Berman and Benson, the public hospitals offer 27% of health care to the population, private hospitals offer 36%, mission hospitals 22% and private nursing homes 14%. Mburu (2007) observes that public hospitals are faced by shortage of drugs, lack of essential supplies and long delays due to falling government funding coupled by an increasing population. She argues that the mission hospitals are mainly concentrated in the rural areas and have not been expanding due to declining funding from donors and church organizations. This scenario has favored the growth of private hospitals in urban places in their pursuit for growth and profits. International Finance Corporation observe that private hospitals are viewed as competitors by those who seek their healthcare services because of their pursuit for profitability, stability and growth.

Even though the healthcare industry is a major contributor in the growth of an economy, it happens to be a marginal player in the lives of most Kenyans. This is the reverse of the situation in most rapidly developing or developed countries. It is of
fundamental importance for the survival of a healthcare organization to obtain a competitive edge. The organizations must anticipate change, recognize opportunities, and monitor continuously the information flow about other businesses and activities in the same field.

Locally, researchers have studied the aspect of competitive intelligence in various sectors e.g. Muiva, (2001) conducted a survey of the use of competitive intelligence systems in the Kenyan pharmaceutical industry while Sang Simon Kipkorir, (2001) studied competitive intelligence practices by FM radio stations operating in Kenya. These studies were however done on different institutions other than healthcare organizations. So far studies have not explored competitive intelligence practices in private hospitals in Mombasa county and the extent to which these practices have impacted performance. This study therefore sought to address this gap.

3. Objective of the Study

The specific objectives of the study were:

i. To analyze the effect of strategic alliance intelligence on organizational performance of The Aga Khan hospital Mombasa.
ii. To establish the effect of market intelligence on organizational performance of The Aga Khan hospital Mombasa.
iii. To assess the extent to which technological intelligence affects organizational performance of The Aga Khan hospital Mombasa.
iv. To determine the effect of product differentiation on organizational performance of The Aga Khan hospital Mombasa.

4. Research Hypotheses

This study was guided by the following null hypotheses;

H\(_{01}\): Strategic alliance intelligence has no significant effect on organizational performance of The Aga Khan Hospital Mombasa.
H\(_{02}\): Market intelligence has no significant effect on organizational performance of The Aga Khan Hospital Mombasa.
H\(_{03}\): Technological intelligence has no significant effect on organizational performance of The Aga Khan Hospital Mombasa.
H\(_{04}\): Strategic alliance intelligence has no significant effect on organizational performance of The Aga Khan Hospital Mombasa.

5. Justification of the Study

The study provides useful information to the government by informing them on the role and contribution made by Healthcare institutions in health care delivery in Kenya. Areas of unfair competition that require streamlining through policy guidelines shall be articulated. The study findings also enable policy makers to closely monitor policy implementation in the health care sector in a bid to make service delivery more focused on the customer, even in the context of health care devolution in Kenya.

The study provides useful information to the health sector and to larger extent other industries. It provides an understanding on the importance of competitive intelligence and how different firms can achieve competitive edge. The findings of this study provide managers the opportunity to know the methods used in gathering and applying competitive intelligence which will help them improve their management styles.

The study acts as a source of reference material for future researchers and other related topics. The competitive intelligence practices in organizations are of interest to industry practitioners. This study serves as a stepping stone for new research in competitive intelligence practices. Besides, researchers and students in the field of strategic management who want to know more about competitive intelligence practices will also find the study beneficial.

6. Review of Literature

6.1 Theoretical Framework

In this study, the theoretical orientation covered the theory of strategic balancing, theory of network organization, Ansoff’s growth matrix and Porter’s generic strategy. These theories explain the orientation of a firm in the aspects that are strategically related to competitive intelligence practices adopted by organizations.
6.1.1 Theory of Strategic Balancing

Strategic balancing is based on the principle that the strategy of a company is partly equivalent to the strategy of an individual. Indeed, the performance of companies is influenced by the actors’ behavior, including the system of leaders’ values. Further to an empirical study on technological alliances, Aliouat deduced the principle of strategic balancing according to which a technological alliance generates paradoxes and lives by its paradoxes. An alliance wavers between multiple antagonistic poles that represent cooperation and competition. This gives room to various configurations of alliances, which disappear only if the alliance swings towards a majority of poles of confrontation. The strategic balancing gathers three models, namely the relational, symbiotic and deployment models. Competition proves to be part of the relational model and the model of deployment. It can be subject to alternation between the two antagonistic strategies, the one being predominantly cooperative as described by the relational model and the other being predominantly competing as characterized by the model of deployment. The company can then take turns at adopting the two strategies in order to keep their alliance balanced. This idea is very close to that of Bengtsson and Kock (2008), according to whom there are three types of competitive relationships: competition-dominated, cooperation-dominated, and equal relationships. The latter is similar to the alternation between the relational model and the model of deployment described by Aliouat, (2006).

Competitive intelligence programme should focus on the management-needs identification process and a number of companies have achieved this (for example, Motorola, Merck and NutraSweet). Jan P. Herring applied the key intelligence topics (KIT) process in order to identify and prioritize the key intelligence needs of senior management and the organization itself. This ensured that intelligence operations were effective and appropriate intelligence was produced. Herring’s approach is useful because it allows corporate intelligence staff to identify strategic issues and as a result senior management can ensure that actionable intelligence results. The other advantages are that an early warning system can be put in place and this will allow potential threats to be identified; and further, key players can be identified and monitored (Herring, 2007).

6.1.2 Porter’s Generic Strategy

Generic strategies can be successfully linked to organizational performance through the use of key strategic practices. Porter's (2008) generic strategies of low cost, differentiation, focus and combination strategies are generally accepted as a strategic typology for organizations. Porter’s, (Porter, 2008) view that low cost and differentiation are discrete ends of a continuum that may never be associated with one another has sparked much conceptual debate and empirical research. This debate may have been encouraged in part because of the absence of conceptual building blocks supporting his value system theory. Scholars have since developed theory to counter Porter’s view, suggesting that low cost and differentiation may be independent dimensions that should be vigorously pursued simultaneously. Empirical research using the MIS database by Miller and Dess suggests that the generic strategy framework could be improved by viewing cost, differentiation and focus as three dimensions of strategic positioning rather than as three distinct strategies. The idea that pursuing multiple sources of competitive advantage is both viable and desirable has also been supported by other researchers. Thus, the research in strategic management following from Porter does not provide unequivocal support for Porter’s original formulation.

Good background information on critical success factors, environmental challenges, resulting opportunities and threats as well as internal strengths and weaknesses are necessary to assess the possible effects of alternative information strategies on the overall business strategy. In the process of exploring the basic differences between management approaches and applying a host of new methods and techniques, many firms have been redefining the very nature of their businesses. Over the past decade two main methods for implementing organization change worldwide are widely known as Total Quality Management (TQM) and Business Process Reengineering (BPR). BPR differs from TQM in two important respects. First, while TQM is focused on continuous improvement, an incremental performance improvement approach, reengineering was founded on the premise that significant corporate performance improvement requires discontinuous improvement – breaking away from the outdated rules and fundamental assumptions that underlie operations. According to Gotlieb, with BPR, rather than simply eliminating steps or tasks in a process, the value of the whole process itself is questioned.

Regardless of the change methodology being employed (BPR or TQM) the factors important to innovation success or failure are many, but most authors would agree that strategic awareness or competitive intelligence is an important pre-requisite for success. Competitive intelligence (CI) is the process by which organizations gather and use information about products, customers, and competitors, for their short and long term strategic planning. It is the first step guiding the planning and redesign of processes, products, and organization structure. Without this strategic vision, business changes will be conducted in haphazard fashion and are less likely to produce significant results. To implement their strategic vision, take advantage of strategic opportunities and address problems, companies have to implement changes to their business processes, products, and/or to the organization itself. The voluminous body of literature on the management of change, including sub-areas such as BPR, and TQM, implicitly or explicitly propose that company strategic intelligence is a pre-requisite for change, and that effective information systems (IS) support is a critical requirement for implementing change. While these two hypotheses are exceedingly important,
the existing literature contains little empirical evidence supporting them. Mostly superficial analyses and personal opinions have been published in this basic area.

6.1.3 Ansoff’s Growth Matrix

The Ansoff Product-Market Growth Matrix, developed by Igor Ansoff in 1957, is a marketing tool created by Igor Ansoff. The matrix allows managers to consider ways to grow the business via existing and/or new products, in existing and/or new markets – there are four possible product/market combinations. This matrix helps companies decide what course of action should be taken given current performance. The matrix illustrates, in particular, that the element of risk increases the further the strategy moves away from known quantities - the existing product and the existing market. Thus, product development (requiring, in effect, a new product) and market extension (a new market) typically involve a greater risk than ‘penetration’ (existing product and existing market); and diversification (new product and new market) generally carries the greatest risk of line, for this reason, amongst others, most marketing activity revolves around penetration.

Grant (2010) argues that the Ansoff Matrix, despite its fame, is usually of limited value although it does always offer a useful reminder of the options which are open. Porter’s, (Porter, 2008) view that low cost and differentiation are discrete ends of a continuum that may never be associated with one another has sparked much conceptual debate and empirical research. This debate may have been encouraged in part because of the absence of conceptual building blocks supporting his value system theory. Scholars have since developed theory to counter Porter’s view, suggesting that low cost and differentiation may actually be independent dimensions that should be vigorously pursued simultaneously.

6.2 Conceptual Framework

A conceptual framework is a graphical representation of the theorized interrelationships of the variables of a study Kothari and Gang, (2014). The conceptualization of variables in any academic study is important because it forms the basis for testing hypothesis and coming up with generalizations in the findings of the study. In this study, the independent variables will be the conceptualized organizational performance Aga Khan Hospital. The independent variables of this study will include strategic alliance intelligence, market intelligence, technological intelligence and product intelligence.

![Conceptual Framework Diagram]

**Figure 6.1: Conceptual Framework**
6.3.1 Strategic Alliance Intelligence

A strategic alliance is an agreement between firms to do business together in ways that go beyond normal company-to-company dealings but fall short of a merger or a full partnership (Wheelen & Hunger, 2010). These alliances range from informal “handshake” agreements to formal agreements with lengthy contracts in which the parties may also exchange equity or contribute capital to form a joint venture corporation.

Strategic alliances offer a company an opportunity to construct broader business systems by linking the company’s internal core competencies with the best of breed capabilities of allies; these alliances have continued to grow in most industries reducing competition to a battle between competing and often overlapping coalitions as it is between individual firms thus increasingly defining industry structures.

6.3.2 Market Intelligence

It’s becoming increasingly difficult for businesses to make accurate forecasts about what might happen six months from now; the current world is in constant flux and providing accurate projections so that a company can adequately plan sales strategy, assess competitor threats and anticipate changes in consumer behavior is a perpetual challenge. Market intelligence (MI) is industry-targeted intelligence that is developed on real-time (dynamic) aspects of competitive events taking place among the 4Ps of the marketing mix (pricing, place, promotion, and product) in the product or service marketplace to better understand the attractiveness of the market (Fleisher, 2007). It helps managers especially sales managers to tailor their marketing strategies to suit consumer demands in a fast-moving vertical market place. According to Fleisher (2007), marketing intelligence is not as widely spread as other components of CI, which are distributed to other non-marketing decisions within an organization and is also a short term tactical approach aimed at improving certainty in decision making so as to accurately determine market opportunities, market penetration strategies, and market development metrics.

Market intelligence also entails adopting market innovation which is concerned with improving the mix of target markets and how chosen markets are best served. Its purpose is to identify better (new) potential markets and better (new) ways to serve target markets. One has to deal first with the identification of potential markets. Identification is achieved through skilful market segmentation. Market segmentation, which involves dividing a total potential market into smaller more manageable parts, is critically important if the aim is to develop the profitability of a business to the full. Incomplete market segmentation will result in a less than optimal mix of target markets, meaning that revenues, which might have been earned, are misread (Prescott, 2001).

6.3.3 Technological Intelligence

Technology intelligence is the capture and delivery of technological information as part of the process whereby an organization develops an awareness of technological threats and opportunities (Kerr et al., 2007). Technology intelligence constitutes one of the most probable areas of informing the innovation process thus it could be the only blood that feeds the innovative firms especially those which operate in technology-based arena and wish to survive in the extremely competitive market places of today.

Rycroft and Kash in 1999 claimed that competitive intelligence requires a process of co-evolution between technology and cultural perspectives. Technology intelligence exerts a significant influence on the ability to innovate and is viewed both as a major source of competitive advantage and of new product innovation (Gunasekaran et al., 2007; Porter, 2008). Often, firms experience problems in this area, which are caused by lack of capital expenditure on technology and insufficient expertise to use the technology to its maximum effectiveness.

In 1990, Hammer stressed that organizations should obliterate rather than automate believing that technology is often introduced for technology's sake without contributing to the overall effectiveness of the operation. However, firms traditional lack of resources usually results in a compromise situation. It is important to link technology intelligence to competitive intelligence in sustaining competitiveness. Organizations that can combine customer value innovation with technology intelligence have an increased chance of enjoying sustainable growth and profit.

6.3.4 Production Differentiation Intelligence

Product intelligence involves an automated system for gathering and analyzing intelligence about the market performance of a product either being designed or manufactured, for purposes of feeding the product managers and engineers involved in both designing and steering the product into the market to assist them in the development of the next iteration or version of that product (Montgomery, 2008). The goal of product intelligence is to accelerate the rate of product innovation, thereby making the product and its owners more competitive. Product intelligence is mostly applied, though not limited to electronic products. Product
development process is only meaningful if the features and functionality of the intended solution align with customer’s, wants, needs and expectations; this means that a high level strategic assessment, qualitative functional evaluation on how customers perceive products and services in comparison to the alternatives in the market is highly critical.

Early studies have argued that product intelligence was valuable from a conceptual perspective; increasing levels of product intelligence should have a positive influence on performance due to economies of scope and scale, market power effects, risk reduction effects, and learning effects (Montgomery, 2008). It has also been shown that highly diversified firms have less market power in their respective markets than more focused firms (Montgomery, 2008).

Researchers suggest that each form of corporate strategy is associated with a different set of economic benefits. In the case of related product diversification intelligence, the main economic benefits are economies of integration and economies of scope. Also, in the strategic management literature, researchers have argued that the primary determinant of firm performance is not the extent of product diversification intelligence, but the relatedness in product intelligence.

6.3.5 Organizational Performance

Organizational Performance can be seen as a multi-dimensional construct consisting of more than simply financial performance (Baker & Sinkula, 2009). Organizational performance is described as the extent to which the organization is able to meet the needs of its stakeholders and its own needs for survival (Griffin, 2003). Stoelhorst and Van Raaij (2004) describe market orientation as marketing’s explanation of performance differentials between firms. Competitive Intelligence enhances a firm’s performance by providing differentiation and cost advantages (Li & Zhou, 2010).

There are substantial empirical evidences that have linked Competitive Intelligence practices with business performance. It is found from past researches that there is either a direct positive relationship (Kumar et al., 2011; Mahmoud, 2011), or indirect influences (Agarwal et al., 2003;), or dual influences (Ramayah et al., 2011), or no effects (Nwokah, 2008) between the two constructs. In the competitive intelligence literature, various measures of business performance have been utilized such as service productivity, return on assets (Sørensen, 2009), customer satisfaction (Chowdhury, 2011), employee satisfaction (Ramayah et al., 2011), service quality, market share (Zhou et al., 2009), sales, net income (Kumar et al., 2011), and size of the firm, age of the firm (Mahmoud, 2011).

In addition, the majority of the performance measurements identified focused on macro level-business performance, a more micro performance perspective is dealt with in several studies, for example, new product performance, financial performance, retail performance, and specific brand performance. Kotler (2010) pointed that to measure an organization’s performance; it shall consider customer satisfaction, customer preference, share of customer mind, customer perception, and so on. Organizational performance is the results of the operations performed by the members of the organizations (Ruey-Gwo & Chieh-Ling, 2007). Therefore, competitive intelligence practices do not only affect many types of performance measures, but it also impacts performance on a number of different levels from the overall organization to individual brands to individuals within the organization (Liao et al., 2011).

6.4 Empirical Review

Wright, Pickton and Callow (2006) examined competitive intelligence in UK firms. The study found firms with integrated procedures in which competitors are distinguished by satisfaction of customer needs, intelligence gathered through conducting primary research, information gathered and translated to strategic action, and there was an intelligence unit charged with the specific mandate and located where it would have the greatest impact. Using the findings, the researchers developed best-practice typology for effective competitive intelligence practices in an organization.

In a study to determine effect of organizational strategy and competitive intelligence practices in Malaysian public listed companies (Yap, Zabid, & Sapuran, 2012) found that a link existed between organizational strategy and competitive intelligence practices in which higher level of competitive intelligence acquisition in technological and economic sectors and a greater extent of competitive intelligence use in most strategic decision making was found among analyzers. The response rate for this study was rather low 10.3% which made the generalizability of the finding to other firms hard. Noor, Waheed and Jamil (2013) examined the role of competitive intelligence in multinational companies and found that the use of competitive intelligence had higher impact on growth and lesser on quality and organizational performance.

In another study examining the effect of competitive intelligence practices and firm’s performance in the emerging market of India, Adidam, Shikla & Banerjee (2012) found that Indian firms that exhibited higher levels of competitive intelligence activities achieved better financial performance and that the level of competitive intelligence activities were at a moderate level, thereby suggesting an opportunity for implementing and using more sophisticated techniques.
Pelsmacker, Muller, Viviers, Saayman, Cuyvers and Jegers (2005) in a study on the use of competitive intelligence practices by South African and Belgian exporters found out that to a certain extent competitive intelligence practices in the two countries were highly comparable. In both countries, there were no separate departments devoted to the competitive intelligence activities and where they existed, the activities were mostly done by marketing and sales departments. Although there were some differences, on average, managers from both countries were found to consider similar types of information important to their firms, and they relied on similar sources of information. South African companies were found to have, on average, a longer tradition of organized competitive intelligence activities and had more full-time and part-time staff involved in it. South African companies were found to devote more time to collecting information but less time to evaluating the results. In both countries, it was also found out that there was a high level of awareness of competitive intelligence and what it could do for the exporter in terms of enhancing competitiveness.

Muthama and Ngugi (2012) established that competitive intelligence practices played a vital role in overall profitability of mobile telecommunication companies in Kenya. The researchers found that technology intelligence was the one most utilized by these firms. The findings support April and Bessa (2006) who assert that technology is an enabler in the competitive intelligence process. The study equates competitive strategies formulated by firms to competitive intelligence practices.

6.5 Critique of Existing Literature

The relatively few studies on competitive intelligence have focused on the companies' micro or macro-economic environments, such as company size or particular industry (Wright et al., 2006; Groom & David, 2001) and also the manner in which competitive intelligence functions, such as which departments are involved and what resources are typically allocated to the function. However, little is known about how the decision maker's perceptions or attitudes toward the business environment affect the formation of competitive intelligence activity. Most surveys and studies of competitive intelligence have focused on large corporations and Fortune 500 companies with formal, working competitive intelligence units.

Wright, Pickton and Callow (2006), while studying competitive intelligence practices in the U.K., excluded sole proprietorships or partnerships in their sample, assuming that they were less likely to use competitive intelligence. In one of the few studies on competitive intelligence in small companies, Groom and David (2001) found evidence to suggest that they were not very concerned with it. Yet, some notable differences were evident among companies regarding to the resources allocated to competitive intelligence activity. For example, companies with a greater number of employees were also those that relied on their employees more extensively for competitive intelligence activity (Groom & David, 2001).

Wright et al. (2006) differentiated between four attitudes. They first perceived the company to be immune to competition, thus viewed competitive intelligence as a simple waste of resources. The second viewed the need to resort to competitive intelligence as task-specific, giving competitive intelligence a reactive connotation rather than a proactive one. (In this case, senior management was less interested in competitive intelligence than department level management.) The third attitude viewed competitive intelligence in good light on a tactical level, yet failed to see the benefit of competitive intelligence long term.

The literature reviewed revealed that most of the studies assessed the effects of competitive intelligence practices on firm’s performance. However, there was limited literature on the effects of competitive intelligence practices on performance of healthcare institutions or whether there is a link between the two. According to Swayne, Duncan, and Ginter (2008) after almost four decades of research, the effects of competitive intelligence on an organization’s performance are still unclear. Some studies have found significant benefits from competitive advantage, although others have found no relationship, or even small negative effects.

7. Research Methodology

7.1 Research Design

This study adopted a descriptive survey design. The study used descriptive case study design; the research was based on qualitative research and quantitative. Patricia (2013), states that descriptive research is used to describe characteristics of a population or phenomenon being studied. It does not answer questions about how/when/why the characteristics occurred. Rather it addresses the "what" question. Surveys allow the collection of large amount of data from a sizable population in a highly economical way. It allows one to collect quantitative data which can be analyzed quantitatively using descriptive and inferential statistics (Saunders, 2011).

7.2 Target Population
A study population comprises of the entire groups of individuals, objects, items, cases, articles or things with common attributes or characteristics existing in space at a particular point in time. A target population according to Mugenda and Mugenda (2013) is that population to which a researcher wants to generalize the results of the study and when the target population is too small, it’s advisable to take a whole population.

| Category      | Frequency |
|---------------|-----------|
| Administration| 45        |
| Medical Officers | 40    |
| Pharmacy      | 20        |
| Finance       | 16        |
| Marketing     | 8         |
| Nursing       | 30        |
| IT            | 10        |
| HR            | 5         |
| **Total**     | **174**   |

Table 1 Target Population

The target population of this study was 174. The study focused on the section and particularly on staff who are dealing with the day to day management of the hospital as well as senior management at strategic level since they are the ones conversant with the competitive intelligence of the hospital.

7.3 Sample Size and Sampling Techniques

According to Mugenda and Mugenda (2013), a sample of 10-30% is good enough if well-chosen and the elements in the sample are more than 30. The population above of 174 possible respondents, a sample of 30% was taken using stratified sampling. This gave a sample size of 52 respondents. Stratified sampling involves dividing the population into a series of relevant strata which implies that the sample is likely to be more representative. Kothari (2014) noted that stratified sampling is used when a population from which the sample is to be draw does not constitute a homogeneous group. Table 2 shows the sample size.

| Category      | Frequency | Sample |
|---------------|-----------|--------|
| Administration| 45        | 14     |
| Medical Officers | 40    | 12     |
| Pharmacy      | 20        | 6      |
| Finance       | 16        | 5      |
| Marketing     | 8         | 2      |
| Nursing       | 30        | 9      |
| IT            | 10        | 3      |
| HR            | 5         | 1      |
| **Total**     | **174**   | **52** |

Table 2 Sample Size

7.4 Data Collection Instruments

A structured questionnaire was used to collect primary data. The questionnaire consisted of both closed and open-ended questions to capture relevant data on strategy formulation, adoption and implementation and to ensure that respondents were not restricted to certain informational details. The questionnaire was carefully designed and tested with a few members of the population for further improvements. This was done in order to enhance its validity and accuracy of data that was collected for the study.

The study was based on both primary and secondary data. Primary data was collected using a structured questionnaire that was administered using ‘drop-and-pick-later’ method while secondary data was obtained from journals, websites and documents that were relevant to the study.
7.5 **Data Collection Procedures**

Data was collected using a self-administered questionnaire. The researcher assured the respondents about confidentiality of their responses. The researcher also obtained an introductory letter from the University to collect data from the Aga Khan Hospital, then administered the questionnaires personally to the respondents through drop & pick technique.

7.6 **Data Analysis and Presentation**

This study adopted both qualitative and quantitative techniques. Inferential statistics included Analysis of Variance (ANOVA), Pearson correlation, and Regression Analysis. These were used to establish the association among the study variables. Data analysis was done using the Statistical Package for Social Scientists (SPSS) computer software. The collected data was screened for accuracy and coded based on profiles of the respondents to eliminate any outliers that was deemed influential on the outcome.

For quantitative data, descriptive analysis was carried out to generate means and standard deviations for the various variables on the Likert scales. For qualitative data, the responses were categorized, coded and grouped into themes. The use of both qualitative and quantitative data was aimed at data triangulation to ensure reliable results. Data was presented using tables for purposes of clarity.

In addition, multiple regression analysis was conducted to establish the relationship between the competitive intelligence practices and performance of The Aga Khan Hospital Mombasa. Multiple regression is a flexible method of data analysis that may be appropriate whenever quantitative variables (the dependent) is to be examined in relationship to any other factors (expressed as independent or predictor variable). Relationships may be non-linear, independent variables may be quantitative or qualitative and one can examine the effects of a single variable or multiple variables with or without the effects of other variables considered, (Cohen, West & Aiken, 2013). The regression model is as follows:

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \]

Where:
- \( Y \) = Performance of Aga Khan Hospital
- \( \alpha \) = Constant Term
- \( \beta_1, \beta_2, \beta_3, \beta_4 \) = Coefficients of determination of the independent variables
- \( X_1 \) = Strategic Alliance Intelligence
- \( X_2 \) = Market Intelligence
- \( X_3 \) = Technological Intelligence
- \( X_4 \) = Product Differentiation Intelligence
- \( \epsilon \) = Error term

8. **Research findings and Data analysis**

8.1 **Descriptive Results**

In the research analysis the researcher used a tool rating scale of 5 to 1; where 5 was the highest and 1 the lowest. Opinions given by the respondents were rated as follows, 5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree and 1= Strongly Disagree. The analyses for mean and standard deviation were based on this rating scale.

8.1.1 **New Market Intelligence**

The first objective of the study was to establish the effects of new market intelligence on organizational performance of Aga Khan Hospital Mombasa. Respondents were required to respond to set questions related to new market intelligence and give their opinions. The opinion that Aga Khan has invested in Research and Development to discover new knowledge of serving customers had a mean score of 4.00 and standard deviation of 1.754. The statement in agreement that Aga Khan Hospital involves all employees in gathering relevant information from the market for competitiveness had a mean score of 4.08 and a standard deviation of 1.385. The statement that Aga Khan Hospital has a market information system to gather data had a mean score of 3.80 and a standard deviation of 1.588. The statement about Aga Khan Hospital’s response in time had a mean score of 3.82 and a standard deviation of 1.259.
Table 8.1 New market Intelligence

| Opinion Statement                                                                 | N  | Mean | Std. Deviation |
|-----------------------------------------------------------------------------------|----|------|---------------|
| Has invested in Research & Development to discover new knowledge of serving customers | 40 | 4.00 | 1.754         |
| Involves all employees in gathering relevant information from the market for competitiveness | 40 | 4.08 | 1.385         |
| Has a market information system to gather data                                      | 40 | 3.80 | 1.588         |
| Response in time                                                                   | 40 | 3.82 | 1.259         |
| Valid N (listwise)                                                                 | 40 |      |               |

8.1.2 Product Differentiation Intelligence

The second objective of the study was to establish the effects of product differentiation intelligence on organizational performance of Aga Khan Hospital Mombasa. Respondents were required to respond to set questions related to product differentiation intelligence and give their opinions. The statement that Aga Khan maintains a broad service image had a mean score of 3.98 and a standard deviation of 1.097. The statement in agreement that invest in innovation and creativity had a mean score of 4.45 and a standard deviation of 0.714. The statement in agreement that Aga Khan Hospital has its own competitive way of maintaining a strong brand had a mean score of 4.00 and a standard deviation of 1.132. The statement that Aga Khan Hospital offers its services below the competitors to outperform them had a mean score of 3.82 and a standard deviation of 1.567. The statement that continuously develop cost effective and innovative service and refines existing ones had a mean score of 3.98 and a standard deviation of 1.025.

Table 8.2 Product Differentiation Intelligence

| Opinion Statement                                                                 | N  | Mean | Std. Deviation |
|-----------------------------------------------------------------------------------|----|------|---------------|
| Maintains a broad service image                                                   | 40 | 3.98 | 1.097         |
| Invests in innovation and creativity                                             | 40 | 4.45 | 0.714         |
| Has its own competitive way of maintaining a strong brand                         | 40 | 4.00 | 1.132         |
| Offers its services below the competitors to outperform them                      | 40 | 3.82 | 1.567         |
| Continuously develops cost effective and innovative services and refines existing ones | 40 | 3.98 | 1.025         |
| Valid N (listwise)                                                                | 40 |      |               |

8.1.3 Technology Intelligence

The third objective of the study was to establish the effects of technology intelligence on organizational performance of Aga Khan Hospital Mombasa. Respondents were required to respond to set questions related to technology intelligence and give their opinions. The statement in agreement that the hospital combines value innovation with technological intelligence had a mean score of 4.30 and a standard deviation of 0.464. The statement that technology is the solution to challenges of implementation at Aga Khan Hospital had a mean score 3.70 and a standard deviation of 1.436. The statement that technology intelligence improves competitiveness in terms of product innovation and automation to improve service delivery had a mean score of 3.73 and a standard deviation of 0.877.
Table 8.3 Technology Intelligence

| Opinion Statement                                                                 | N  | Mean | Std. Deviation |
|-----------------------------------------------------------------------------------|----|------|---------------|
| The hospital combines value innovation with technological intelligence            | 40 | 4.30 | .464          |
| Technology is the solution to the challenges of implementation at Aga Khan Hospital| 40 | 3.70 | 1.436         |
| Technology intelligence improves competitiveness in terms of product innovation and automation to improve service delivery | 40 | 3.73 | .877          |
| Valid N (listwise)                                                                | 40 |

8.1.4 Strategic Alliance Intelligence

The fourth objective of the study was to establish the effects of strategic alliance intelligence on organizational performance of Aga Khan Hospital Mombasa. Respondents were required to respond to set questions related to strategic alliance intelligence and give their opinions. The statement the outsourcing of core specialists or enters into joint venture to control costs had a mean score of 3.98 and a standard deviation of 1.230. The statement that provides enhanced services through collaboration had a mean score of 3.95 and a standard deviation of 0.597. The statement that uses incentives to motivate employees to accomplish the hospital vision had a mean score of 4.20 and a standard deviation of 1.137. The statement that encourages team work formation to increase the interaction between employees and knowledge sharing had a mean score of 3.62 and a standard deviation of 1.390. The statement that support the development of alliances which will increase the balance of knowledge and creative contributions had a mean score of 3.93 and a standard deviation of 1.023.

Table 3 Strategic Alliance Intelligence

| Opinion Statement                                                                 | N  | Mean | Std. Deviation |
|-----------------------------------------------------------------------------------|----|------|---------------|
| Outsources the core specialists or enters into joint venture to control costs      | 40 | 3.98 | 1.230         |
| Provides enhanced services through collaboration                                   | 40 | 3.95 | .597          |
| Uses incentives to motivate employees to accomplish the hospitals vision           | 40 | 4.20 | 1.137         |
| Encourages team work formation to increase the interaction between employees and knowledge sharing | 40 | 3.62 | 1.390 |
| Supports the development of alliances which will increase the balance of knowledge and creative contributions | 40 | 3.93 | 1.023 |
| Valid N (listwise)                                                                | 40 |

8.1.5 Organizational Performance

The statement that there is increased market share had a mean score of 3.85 and a standard deviation of 1.350. The statement that the hospital achieves its goals and objectives had a mean score of 3.97 and a standard deviation of 1.025. The statement that there is improved service quality had a mean score of 4.02 and a standard deviation of 1.349. The statement that there is increased customer satisfaction had a mean score of 4.05 and standard deviation of 1.584.

Table 4 Organizational Performance

| Opinion Statement                                                                 | N  | Mean | Std. Deviation |
|-----------------------------------------------------------------------------------|----|------|---------------|
| There is increased market share                                                   | 40 | 3.85 | 1.350         |
| The hospital achieves its goals and objectives                                    | 40 | 3.97 | 1.025         |
| There is improved service quality                                                | 40 | 4.02 | 1.349         |
| There is increased customer satisfaction                                          | 40 | 4.05 | 1.584         |
| Valid N (listwise)                                                                | 40 |

8.2 Correlation Analysis

To establish the relationship between the independent variables and the dependent variable the study conducted correlation analysis which involved coefficient of correlation and coefficient of determination.

8.2.1 Coefficient of Correlation

Pearson Bivariate correlation coefficient was used to compute the correlation between the dependent variable (Organizational Performance) and the independent variables (New Market Intelligence, Product Differentiation Intelligence, Technological Intelligence and Strategic Alliances Intelligence). According to Sekaran (2015), this relationship is assumed to be linear and the
The correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). The correlation coefficient was calculated to determine the strength of the relationship between dependent and independent variables (Kothari & Gang, 2014).

In trying to show the relationship between the study variables and their findings, the study used the Karl Pearson’s coefficient of correlation (r). This is as shown in Table 5 below. According to the findings, it was clear that there was a positive correlation between the independent variables, new markets intelligence, product differentiation intelligence, technological intelligence and strategic alliance intelligence and the dependent variable organizational performance. The analysis indicates the coefficient of correlation, r equal to 0.551, 0.172, 0.128 and 0.456 for new markets intelligence, product differentiation intelligence, technological intelligence and strategic alliance intelligence respectively. This indicates positive relationship between the independent variable namely new markets intelligence, product differentiation intelligence, technological intelligence and strategic alliance intelligence and the dependent variable organizational performance.

**Table 5 Pearson Correlation**

|                      | Organizational Performance | New Market Intelligence | Product Differentiation Intelligence | Technology Intelligence | Strategic Alliance Intelligence |
|----------------------|---------------------------|-------------------------|--------------------------------------|-------------------------|-------------------------------|
| Organizational       | 1                         | 1                       |                                      |                         |                               |
| Performance          |                           |                         |                                      |                         |                               |
| New Market Intelligence | .551**                   | 1                       |                                      |                         |                               |
| Product Differentiation | .172                     | .428**                  | 1                                   |                         |                               |
| Technology Intelligence | .128                     | .548**                  | .368*                               | 1                       |                               |
| Strategic Alliance Intelligence | .456**                  | .765**                  | .788**                              | .028                    | 1                             |

**. Correlation is significant at the 0.01 level (2-tailed).**  
* Correlation is significant at the 0.05 level (2-tailed).

8.2.3 Coefficient of Determination (R²)

To assess the research model, a confirmatory factors analysis was conducted. The four factors were then subjected to linear regression analysis in order to measure the success of the model and predict causal relationship between independent variables (New Market Intelligence, Product Differentiation Intelligence, technological Intelligence and Strategic Alliance Intelligence), and the dependent variable (Organizational Performance).

**Table 6 Coefficient of Determination Model Summary (R²)**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|---|----------|-------------------|----------------------------|
| 1     | .712* | .507 | .450 | 1.88326 |

a. Predictors: (Constant), Strategic Alliance Intelligence, Technology Intelligence, Product Differentiation Intelligence, New Market Intelligence

The model explains 50.7% of the variance (Adjusted R Square = 0.450) on Organizational Performance. Clearly, there are factors other than the four proposed in this model which can be used to predict financial sustainability. However, this is still a good model as Gaur and Gaur (2009) pointed out that as much as lower value R square 0.10-0.20 is acceptable in social science research.

This means that 50.7% of the relationship is explained by the identified four factors namely new markets intelligence, product differentiation intelligence, technological intelligence and strategic alliance intelligence. The rest 49.3% is explained by other factors in the organizational performance not studied in this research. In summary the four factors studied namely, new markets intelligence, product differentiation intelligence, technological intelligence and strategic alliance intelligence or determines 50.7% of the relationship while the rest 49.3% is explained or determined by other factors.
8.4 Regression Analysis

8.4.1 Analysis of Variance (ANOVA)

The study used ANOVA to establish the significance of the regression model. In testing the significance level, the statistical significance was considered significant if the p-value was less or equal to 0.05. The significance of the regression model is as per Table 7 below with P-value of 0.00 which is less than 0.05. This indicates that the regression model is statistically significant in predicting factors of financial sustainability. Basing the confidence level at 95% the analysis indicates high reliability of the results obtained. The overall Anova results indicate that the model was significant at $F = 154.709$, $p = 0.000$. These results agree with (Bowman, 2011).

Table 7 Analysis of Variance (ANOVA)

| Model     | Sum of Squares | df | Mean Square | F     | Sig. |
|-----------|----------------|----|-------------|-------|------|
| 1         | Regression     | 127.466 | 4 | 31.867 | 8.985 | .000 |
|           | Residual       | 124.134 | 35 | 3.547 |
|           | Total          | 251.600 | 39 |

a. Dependent Variable: Organizational Performance
b. Predictors: (Constant), Strategic Alliance Intelligence, Technology Intelligence, Product Differentiation Intelligence, New Market Intelligence.

8.4.2 Multiple Regression

The researcher conducted a multiple regression analysis as shown in Table 8 so as to determine the relationship between financial sustainability and the four variables investigated in this study.

Table 8 Multiple Regression

| Model                                | B       | Std. Error | Beta | t     | Sig. |
|--------------------------------------|---------|------------|------|-------|------|
| (Constant)                           | 29.685  | 5.452      |      | 5.445 | .000 |
| New Market Intelligence              | .539    | .145       | 1.209 | 3.719 | .001 |
| Product Differentiation Intelligence | .720    | .229       | .798 | 3.147 | .003 |
| Technology Intelligence              | .896    | .261       | .834 | 3.426 | .002 |
| Strategic Alliance Intelligence      | .143    | .242       | .184 | 3.591 | .000 |

a. Dependent Variable: Organizational Performance

The regression equation was:

$$Y = 29.685 + 0.539X_1 + 0.720X_2 + 0.896X_3 + 0.143X_4$$

Where;

Y = the dependent variable (Organizational Performance)
X₁ = New Market Intelligence
X₂ = Product Differentiation Intelligence
X₃ = Technological Intelligence
X₄ = Strategic Alliance Intelligence

The regression equation above has established that taking all factors into account (Organizational Performance because of new Markets Intelligence, Product Differentiation Intelligence, Technological Intelligence and Strategic Alliance Intelligence) constant
at zero efficiency in organizational performance will be 29.685. The findings presented also shows that taking all other independent variables at zero, a unit increase in new markets intelligence will lead to a 0.539 increase in the scores of organizational performance; a unit increase in product differentiation intelligence will lead to a 0.720 increase in organizational performance; a unit increase in technological intelligence will lead to a 0.896 increase in the scores of organizational performance a unit increase in strategic alliance intelligence will lead to a 0.143 increase in the score of organizational performance. This therefore implies that all the four variables have a positive relationship with technological intelligence contributing most to the dependent variable.

From the table we can see that the predictor variables of new markets intelligence, product differentiation intelligence, technological intelligence and strategic alliance intelligence got variable coefficients statistically significant since their p-values are less than the common alpha level of 0.05.

8.5 Hypotheses Testing

The study used multiple regression analysis to establish the linear statistical effect of independent variables on dependent variable of this study. The four null hypotheses mentioned in chapter one of this study were tested using multiple linear regression model.

8.5.1 Test of Hypothesis 1

\[ H_{01}: \text{Strategic alliance intelligence does not significantly affect organizational performance of The Aga Khan Hospital Mombasa.} \]

\[ \beta_1 = 0, \]

In relation to the variable strategic alliance intelligence, the results indicate that strategic alliance intelligence has an effect on organizational performance of Aga Khan Hospital Mombasa. This is supported by regression analysis t-value of 3.591 which is greater than the critical value 2.0 and a p-value of 0.00 at 95% level of significance which is less than 0.05.

After testing the hypothesis by comparing the scores of calculated t-value and critical t calculated t-values was 3.591 for strategic alliance intelligence, which is greater than the critical \( t_{0.05} = 2.0 \), the study rejected the null hypothesis that there is no effect of strategic alliance intelligence on organizational performance of Aga Khan Hospital Mombasa.

Therefore, the study accepted the alternative hypothesis that there is an effect of strategic alliance intelligence on organizational performance of Aga Khan Hospital Mombasa.

8.5.2 Test of Hypothesis 2

\[ H_{02}: \text{Market intelligence does not significantly affect organizational performance of The Aga Khan Hospital Mombasa.} \]

\[ \beta_2 = 0, \]

In relation to the variable strategic alliance intelligence, the results indicate that market intelligence has an effect on organizational performance of Aga Khan Hospital Mombasa. This is supported by regression analysis t-value of 3.719 which is greater than the critical value 2.0 and a p-value of 0.00 at 95% level of significance which is less than 0.05. This result agrees with (Uzel, Namusonge, & Obwogi, 2015).

After testing the hypothesis by comparing the scores of calculated t-value and critical t calculated t-values was 3.719 for market intelligence, which is greater than the critical \( t_{0.05} = 2.0 \), the study rejected the null hypothesis that there is no effect of market intelligence on organizational performance of Aga Khan Hospital Mombasa.

Therefore, the study accepted the alternative hypothesis that there is an effect of market intelligence on organizational performance of Aga Khan Hospital Mombasa.

8.5.3 Test of Hypothesis 3

\[ H_{03}: \text{Technological intelligence does not significantly affect organizational performance of The Aga Khan Hospital Mombasa.} \]

\[ \beta_3 = 0. \]

In relation to the variable technological intelligence, the results indicate that technological intelligence has an effect on organizational performance of Aga Khan Hospital Mombasa. This is supported by regression analysis t-value of 3.426 which is greater than the critical value 2.0 and a p-value of 0.00 at 95% level of significance which is less than 0.05. This result agrees with (Muthoka, Oloko, & Obonyo, 2017).
After testing the hypothesis by comparing the scores of calculated t-value and critical t calculated t-values was 3.591 for strategic alliance intelligence, which is greater than the critical $t_{0.05} = 2.0$, the study rejected the null hypothesis that there is no effect of market intelligence on organizational performance of Aga Khan Hospital Mombasa.

Therefore, the study accepted the alternative hypothesis that there is an effect of market intelligence on organizational performance of Aga Khan Hospital Mombasa.

8.5.4 Test of Hypothesis 4

$H_04$: Product differentiation intelligence does not significantly affect organizational performance of The Aga Khan Hospital Mombasa. $\beta_4=0$.

In relation to the variable product differentiation intelligence, the results indicate that product differentiation intelligence has an effect on organizational performance of Aga Khan Hospital Mombasa. This is supported by regression analysis t-value of 3.591 which is greater than the critical value $t_{0.05} = 2.0$ and a p-value of 0.00 at 95% level of significance which is less than 0.05. This result agrees with (Njanja, 2016).

After testing the hypothesis by comparing the scores of calculated t-value and critical t calculated t-values was 3.591 for product differentiation intelligence, which is greater than the critical $t_{0.05} = 2.0$, the study rejected the null hypothesis that there is no effect of product differentiation intelligence on organizational performance of Aga Khan Hospital Mombasa.

Therefore the study accepted the alternative hypothesis that there is an effect of product differentiation intelligence on organizational performance of Aga Khan Hospital Mombasa.

9.0 Discussion of Key Findings

The first objective sought to determine whether strategic alliance intelligence influenced performance of the Aga Khan Hospital, Mombasa. To test whether strategic intelligence had a significant effect or otherwise on performance of the Aga Khan Hospital, the study applied multiple linear regression model of the independent variables against the dependent variable. There was a significant effect and positive correlation of strategic alliance with performance of Aga Khan Hospital ($r=0.456$, p-value=0.000 at 0.01 level of significance). In the multiple linear regression model, the coefficient analysis results indicated a moderate, positive and significant effect of strategic alliance intelligence on performance of Aga Khan Hospital, Mombasa.

The second objective sought to determine whether market intelligence influenced performance of the Aga Khan Hospital, Mombasa. To test whether market intelligence had a significant effect or otherwise on performance of the Aga Khan Hospital, the study applied multiple linear regression model of the independent variables against the dependent variable. There was a significant effect and positive correlation of market intelligence with performance of Aga Khan Hospital ($r=0.551$, p-value=0.000 at 0.01 level of significance). In the multiple linear regression model, the coefficient analysis results indicated a moderate, positive and significant effect of market intelligence on performance of Aga Khan Hospital, Mombasa.

The third objective sought to determine whether technological intelligence influenced performance of the Aga Khan Hospital, Mombasa. To test whether technological intelligence had a significant effect or otherwise on performance of the Aga Khan Hospital, the study applied multiple linear regression model of the independent variables against the dependent variable. There was a significant effect and positive correlation of technological intelligence with performance of Aga Khan Hospital ($r=0.128$, p-value=0.000 at 0.01 level of significance). In the multiple linear regression model, the coefficient analysis results indicated a moderate, positive and significant effect of technological intelligence on performance of Aga Khan Hospital, Mombasa.

The fourth objective sought to determine whether product differentiation intelligence influenced performance of the Aga Khan Hospital, Mombasa. To test whether product differentiation intelligence had a significant effect or otherwise on performance of the Aga Khan Hospital, the study applied multiple linear regression model of the independent variables against the dependent variable. There was a significant effect and positive correlation of product differentiation intelligence with performance of Aga Khan Hospital ($r=0.172$, p-value=0.000 at 0.01 level of significance). In the multiple linear regression model, the coefficient analysis results indicated a moderate, positive and significant effect of product differentiation intelligence on performance of Aga Khan Hospital, Mombasa.

10 Conclusions and Recommendations

10.1 Conclusions
This study concludes that Aga Khan Hospital uses competitive intelligence practices which include; the new market intelligence, product differentiation intelligence, technological intelligence and strategic alliance intelligence to help them acquire competitive edge and be a one stop shop for medical solutions for their customers.

The researcher concludes that new markets intelligence affects organizational performance of Aga Khan Hospital in Mombasa. Though the Aga Khan Hospital has invested heavily in market research and development, there was need to have a continuous marketing research.

The researcher also concludes that product differentiation affects organizational performance of Aga Khan Hospital in Mombasa. This study observed that Aga Khan Hospital has a corporate image to protect and maintain, there was need to work on the negative image that may taint its brand.

The researcher observed that technology combined with innovation reduces costs and improves service quality. The study concludes that technological intelligence practices that affects organizational performance of Aga Khan Hospital in Mombasa included the acquisition of a smart system that processed automation in the firm, interconnected technology in the company, integrated systems in the industry and new software in the industry.

Outsourcing and entering into joint ventures strengthens the images of the hospital and helps to increase market share, reduce costs and achievement of vision and mission. The study results conclude that strategic alliance intelligence affects organizational performance of Aga Khan Hospital in Mombasa.

10.2 Recommendations

The study recommends as follows:

i. Hospitals should continuously invest in marketing research to gather as much information as possible in order to remain competitive.

ii. Hospitals should strive to maintain existing customers and acquire new ones.

iii. Hospitals should make use of technology intelligence among other intelligences to increase their competitiveness in terms of innovation, customer satisfaction and market orientation. These intelligences ensure that internal strengths of the Hospital are utilized for the betterment of the firm.

iv. Hospitals should review its strategic alliances and joint ventures and maintain those that are relevant and profitable.

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