



Assimilation of Web Technologies in Firms' Supply Chain Management: a Case of the
Ghanaian Events Industry

BY

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DECLARATION

I hereby declare that this dissertation is the result of my own original work and that no part has been presented for another degree in this university or elsewhere.

Candidates Signature:

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I hereby declare that the preparation and presentation of this dissertation were supervised in accordance with the guidelines on the supervision of dissertation laid down by Ashesi University College.

Supervisor's Signature:

Supervisor's Name:

Date:

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ABSTRACT

This dissertation examines the supply chain framework of event planning firms in Ghana, with particular reference to the assimilation of technology in the supply chain function. The research seeks to ascertain how exactly, event firms integrate technology in their supply chain and what impact technology has on their supply chain framework. An emphasis was also placed on the type of technologies used in the industry and how quick events firms are in assimilating new technologies. The undergirding theory of the work was based on a supply chain frame work proposed by Lambart ., et al (19989) and Ranganathan ., et al(2006).

The methodology employed in analyzing the supply chain framework and technology assimilation included phone and Skype interviews as well as questionnaires. Emails were sent to chief executive officers of event firms and Skype interviews were set. Questionnaires were sent to those who could not have time for interviews. The findings presented in this research consist of information obtained from a qualitative study of a sample of event planning firms in Accra.

This study postulates that, there exists an inefficient supply chain frame work in the Ghanaian event firms due to long communication among stake holders. The Ghanaian events industry utilizes mobile applications more than web applications; however, the number of communication prolongs the process. Cross platform applications such as facebook and instagram can be used as web applications, however, industry members choose to use them as mobile applications because of their convenience and simplicity.

The supply chain of the event planning industry can be improved by using a series of cross platform applications that can help reduce the communication process among the industry stakeholders. Technology assimilation is high and Social media is the main technology stream significantly used in the industry, the social media sector can be utilized to make communication faster and easier, rendering the supply chain framework efficient.

List of Acronyms and Key Words

| Acronym/Key Word | Meaning/Definition |
|--------------------------------|--|
| SC | Supply Chain |
| SCM | Supply Chain Management |
| ERP | Enterprise Resource Planning |
| MRP | Material Requirement Planning |
| BOM | Bill of Materials |
| CPEMT | Cross Platform Event Management |
| CRM | Customer Relationship Management |
| HTTP | Hyper Text Transfer Protocol |
| B2B | Business to Business |
| HTML | Hyper Text Transfer Markup Language |
| LAN | Local Area Network |
| MAN | Metropolitan Area Network |
| WAN | Wide Area Network |
| Web Technology | The establishment and use of mechanism that make it possible for different computers to communicate using the HTTP protocol(Tim, 2000) |
| Technology Assimilation | Assimilation is the extent to which Web technologies and applications are used in key internal organizational activities in the SCM function (Rnganathan, et al, 2004). |
| Supply chain Management | Supply chain management (SCM) is a systemic, strategic coordination of the traditional business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole |
| Supply Chain | Supply chain is a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer (Mentzer, 2001). |

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CHAPTER 1

INTRODUCTION

1.0 Introduction

Event planning is an industry that has gained popularity around the globe. The event industry is quite an elephant in a room of large industries. It generates over \$trillion in revenues in the US alone which makes it bigger than the automobile and IT/data industries (Kear, 2015). The industry employs over 215, 147 people and work with over 203, 368 businesses (IBISWorld, 2016). The US Beureau of Labor and Statistics also predicted that the event industry will expand by 44% between 2010 and 2020 which exceeds most growth predictions for other industries (Kear, 2015). With all this speedy growth, innovation and technology are not far behind; this implies the industry needs planners with great technological and innovative skills to keep the industry at pace. In Ghana, events industry is still gaining popularity. There are more event planning firms in Ghana than before.

1.1 Background of Study

Event planning spans from thousands of years ago, from the earliest royal pageants, pagan festivals and village gatherings with hands-on coordination and personal relationships as the core skill sets for those very early “planners”. Event planning and management as a profession has its roots in the early 20th century when wealthy families started hiring other people to coordinate all their fancy weddings, balls and receptions (Vault, 2016). The planning grew into a larger industry as advances in transport and communication made it possible for people to travel longer distances to attend industry meetings and social events (Vault, 2016). Event planning has now evolved into a full profession and celebrity event planners such as David Tutera brought event planning to the media.

The events sector as observed by Uysal , Xiangping and Dwyer, the events is one of the fastest growing areas of the tourism industry (Korir, 2012). Nevertheless, Getz (2007) and Dwyer et al., (2007) point to events as important motivators of tourism forming part of the marketing plans of most destinations, yet, in most cases it remains largely unstructured and informal (Korir, 2012). Events ventures use resources and create economic costs and benefits in equal measure. Apart from provision of job alternatives, events raise the level of population participation in economic development, generate secondary income, enhance community stability, and are often considered to have minimal damage to the physical environment (Hall, 1996). Moreover, events industry is not necessarily capital intensive and is therefore less dependent on massive foreign investment thereby limiting the financial risk involved thus encouraging entrepreneurship and self-employment (Korir, 2012).

In the current era event planning is a process of managing a project or an event, it encompasses processes such as budgeting, establishing timelines, selecting and reserving event sites, acquiring permits, planning food, coordinating transportation, developing a theme, arranging for activities, selecting speakers and keynotes, arranging for equipment and facilities, managing risk, and developing contingency plans for the success of the event (Shone, 2004). As stated earlier, the origin of event planning is traced back to ancient times, especially the meetings of monarchs that obviously required substantial amounts of planning. Royal weddings have also been large events throughout history, from Alexander the Great's marriage to a Persian princess down to our era's William-and-Kate extravaganza (Vault, 2016).

In Ghana, the industry harbors firms that plan different events. Event categories include; celebrations (weddings anniversaries and birthday parties among others), educational events (conferences, conversions, graduations and corporate meetings), promotions (product launches,

political rallies, and fashion shows) and commemorations (memorials and civic events). This research explores the effects of using web technologies in the supply chain management, limiting the scope to the Ghanaian event industry.

It might be hard to prove but it is very true that there is very limited literature concerning the Ghanaian events industry. The Ghanaian event planning industry is developing and gaining both local and international recognition. The industry has been in existence for long and most firms are experienced and developed. There is no market leader in the industry. The major market players in the Ghanaian event industry include Global Media Alliance, Charter House, Rachelle Events, Prime Shades Events, Planit Ghana, Purple Twirl events, Think Mahogany and many other firms. Service Buyers are the clients who demand for events planning services; these include the government, corporate institutions, and social groups. Suppliers are vendors of various event planning accessories, these include entertainment companies who rent their entertainment services during events, food companies that cater for the event, sound systems vendors who rent sound systems to event organizers, filming groups that take videos and pictures of events and designing companies that provide best appearance of the environments.

1.2 Event Planning Industry in Kenya versus Ghana

Based on the findings of a research done by Jacqueline Korir in Kenya, event management ventures in Kenya are undertaken by young entrepreneurs. This is due to the low investment and labor intensive nature of the industry. The ventures are more attractive to female and educated entrepreneurs than men. In Kenya, event management being an emerging area of business venture is underdeveloped as most ventures have been in existence for less than 5 years (Korir, 2012). Most entrepreneurs participate in outside catering, floral or decorations of venues, provision of cake and hire of tents and chairs for events especially weddings which most

entrepreneurs participate in. Few entrepreneurs engage in business events. The source of business for most of the entrepreneurs are usually from strong relationships such as friends, relatives and neighbors and from weak relationships that include NGO's, government establishments and competitors. The industry is still growing, hence, an estimation of its contribution to the national GDP.

The Ghanaian service industry accounts for 50% of the national GDP (Statistical Service, 2013). Though event planning is a developing industry, it contributes largely to the service industry, hence, to the nation GDP. In both Ghana and Kenya, most event planning entrepreneurs are literate females. Both industries are still still developing. Little has been written about the industry in both Ghana and Kenya.

1.3 Why Focus on Supply Chain and Web Technology?

In this era of rapid technological advancements, companies strive to gain strategic advantage, improve market share and gain corporate profit (Chou, 2004). In order to achieve these goals, supply chain competency must be placed at the heart of a company's business model (Chou, 2004). Firms have realized that competition is driven by customer demand; effective supply chain management that provides buyers with high quality products and services at lower prices. Just like enterprise resource planning (ERP) and customer relationship management (CRM), supply chain management (SCM) is also an important component of extended enterprise firms such as event planning firms (Chou, 2004).

Mentzer defines supply chain as a set of three or more entities (organizations or individuals) directly involved in the upstream and downstream flows of products, services, finances, and/or information from a source to a customer (Mentzer, 2001). Supply chain

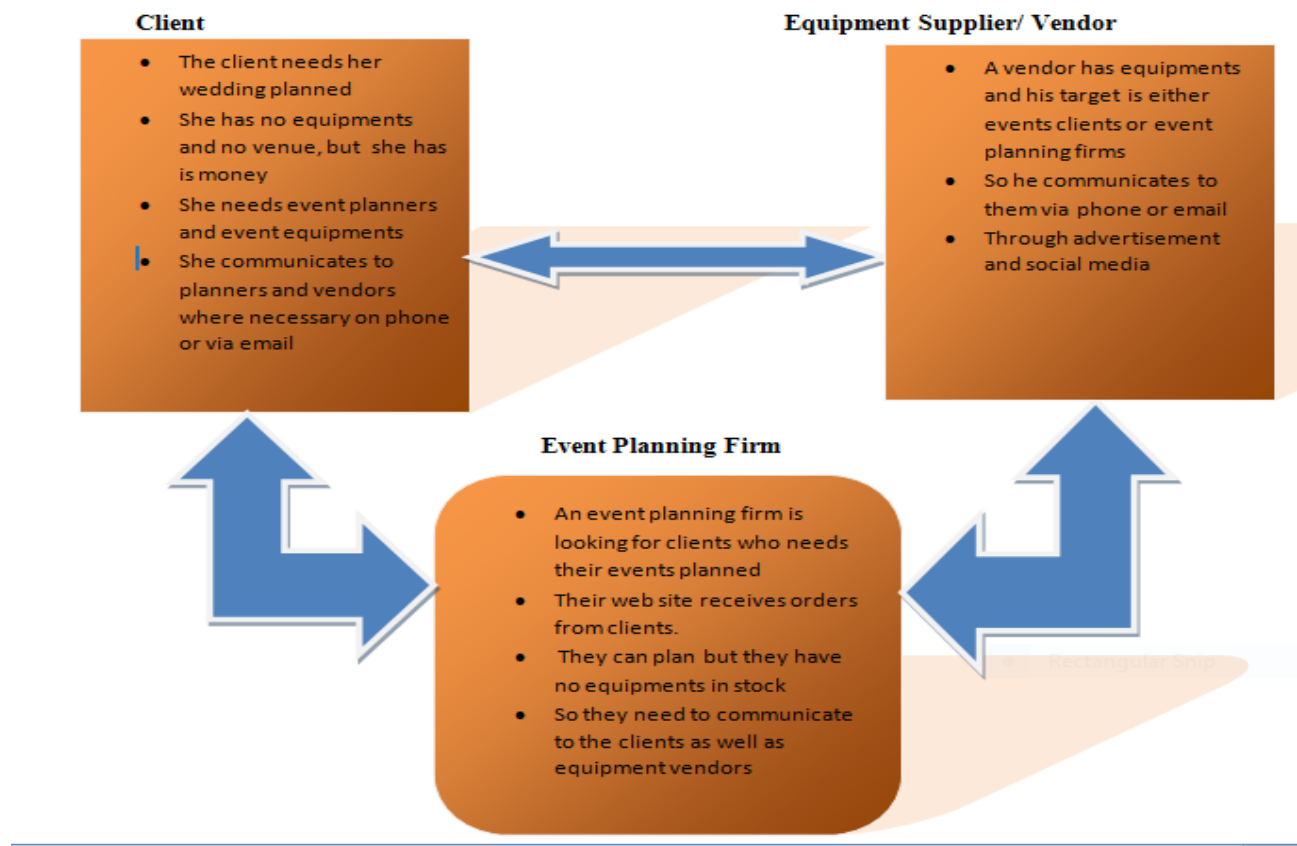
management (SCM) is a systemic, strategic coordination of the traditional business functions within a particular company and across businesses within the supply chain, for the purposes of improving the long-term performance of the individual companies and the supply chain as a whole (Chou, 2004).

Beyond the all-encompassing adoption of ERP systems, which aim to facilitate internal operations and to increase productivity, firms are generating explosive demand from SCM applications (Chou, 2004)). Its connectivity is mainly realized through the intranet and extranet that exists within and across firms. Nowadays, the Internet and the World Wide Web are widely accepted since they broaden the scope of connectivity among individuals and businesses (Tan, 2010). Web technologies allow firms to collaborate with business partners to gain the benefits of reducing costs, enhancing customer satisfaction, and retaining competitive advantages (Chou, 2004). These are some of the reasons this research was undertaken.

1.4 Supply chain in the Ghanaian Events Industry

Taking a closer look at the supply chain of most Ghanaian events planning firms, the observation done by industry members is that the more the stake holders the larger the supply chain and the more its operational and communication complexity. When such situations occur, it is a wakeup call for attention from firms' management. As discussed earlier, Ghanaian event planning firms have a wide range of stakeholders. Most of the firms have various customers and suppliers; this makes the supply chain very complex. Below is simplified model of the supply chain approach commonly used among Ghanaian event planning firms in the form of a scenario.

Figure 1.1: The current supply chain model



1.5 Significance of the Study

Event planning is an industry that has gained significant attention from social groups, governments and the corporate who are the major stakeholders in Ghana. However, most studies as well as evidence from event planning firms' websites reveal that supply chain has been the backward force that pulls the industry behind. *"In event firms' operations, supply chain is very vital because its efficiency is a key ingredient in determining service standards which in turn determines customer market share, hence, the profitability and sustainability of the firm"*, explained Adwoa, chief executive officer of Rachelle events. The implication is that, for these firms to operate at the desired efficiency, supply chain management must be thoroughly done. As

kirk(2001) emphasized, integration of supply chain activities and the technologies to accomplish it has become competitive necessities in most industries (Kirk, 2001). This is another reason to pay attention to SCM.

Firstly, this research is very important because it is tailored at providing information to industry members on how they can improve supply chain which is the integral ingredient in their vital operations in pursuit for success. Since supply chain has become a hot issue among business in all industries, this study will help the events industry members concern themselves with supply chain.

Secondly, although it is hard to prove, there has been very limited literature on supply chain and web technologies in the events industry where Ghana is concerned. This research will raise awareness on this topic; the research aims at raising the curiosity of industry members as well as scholars in Ghana on the topic.

Thirdly, there is need to bridge the knowledge gap in literature on this topic. I believe there is more information that is not being documented about the topic. Since secondary data is limited, scholars are reluctant to undergo any research pertaining event industry supply chain management. Moreover, this research uses primary data to set up literature frameworks for more researchers to dig deep into this

Lastly, this research is worth undertaking because it will highlight the importance of technology in firms supply chain that applies to all firms and can be replicated by all firms not limited to the Ghanaian events industry. This means the research will add to the body of knowledge in Ghana.

1.6 Problem Definition

All the CEOs interviewed in this research revealed that even though the industry is growing rapidly, there are still challenges the entire industry is vigorously fighting to survive. They further revealed that the major challenges faced include; Shrinking Budgets that force planners need to provide their clients with creative solutions to combat reduction in budgets. The emergent of short Lead Times also force planners to source the most cost effective and suitable venue and suppliers that would help deliver more memorable and unique events to ensure the company sees a better return on investment.

There is also a general rise in costs such that event organizers have become accustomed to venues and suppliers offering clever and creative incentives and discounts to keep their spending down and must adapt to these continuing policies.

With all these issues, industry members are still using long process communication that renders their supply chain inefficient. Most of these firms have web presence and customers can make orders from web sites, however, the supply chain is still as a long process as shown in figure 1.1, customers still have to communicate with suppliers on regular basis, planners communicate to suppliers and customers and suppliers also communicate to both the client and the planners.

The major problem is that this approach to supply chain is clustered with inter-firm communication, therefore; it is very slow and inefficient, as a result, it affects the firms' performance their customer service.

1.7 Research Questions

The focus of the research is how the assimilation of web technologies can affect the supply chain of firms in the events industry. To deepen the understanding of the topic and tailor to what is needed to be explored, the following research questions were asked.

- 1 Is there a relationship between web technology assimilation and supply chain efficiency?
- 2 Do Web technology systems create any significant value in the SCM function of events firms in Ghana?
- 3 How does the level of assimilation of Web technologies into SCM affect the benefits firms realize from it?

1.8 Research Objectives

The main objective of this research is to discover the impact of the assimilation of web technologies in the supply chain management of the event planning firms in Ghana. Below are the specific objectives.

- 1 To understand the importance of supply chain to business firms especially event planning firms in Ghana.
- 2 Find out the relationship between web technologies and supply chain of any firm
- 3 Investigate how firms can benefit from patronizing web technologies in their supply chain Management techniques.
- 4 Propose a frame work for the integration of web technologies into events firms SCM

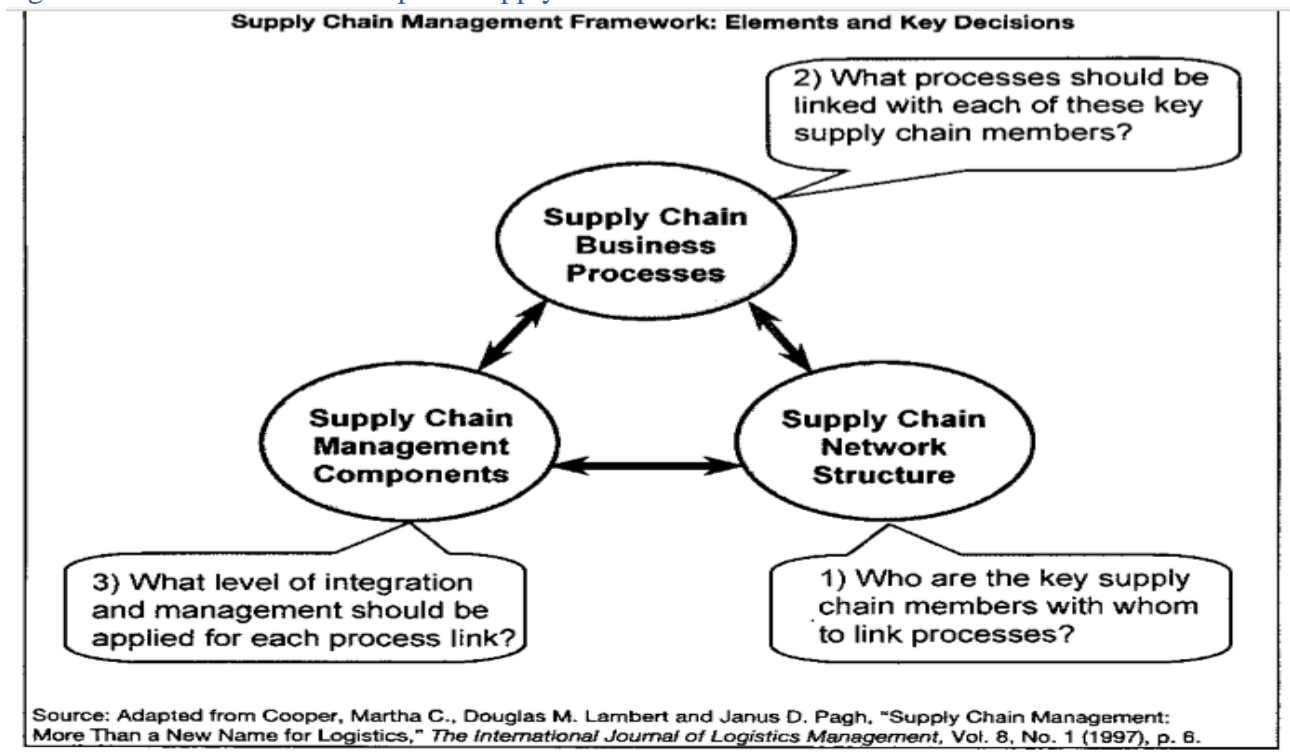
1.9 Theoretical Framework

Among the most significant changes in the paradigm of modern business management is the fact that business no longer operate and compete autonomously as a single entity but as a network of supply chains. Lambart et al. (2006) revealed that business management as entered an era of inter-network completion and the ultimate success of a single firm depends on managers' ability to integrate the firm's intricate network of business relationships. For this reason,

managers seek to develop normative tools for a successful supply chain management (Lambart, 2005).

There has been this discussion on the type of supply chain tools to be used for the best outcome of the supply chain management. In 1997, Cooper, Lambert and Pagh proposed a framework for understanding SCM; an extended enterprise SCM framework. This framework sees supply chain in a general sense; it encompasses three closely related elements: structure of the supply chain, the supply chain business process and the supply chain management components, they proposed that these three elements captures the essence of supply chain management. Implementation of SCM involves identifying supply chain management members, the processes needed to link them to and the type integration that applies to each process link (Lambart, 2005)).

Figure 1.2 The Extended Enterprise Supply chain Framework



Ranganathan (2006) also shared the same theory. However, he brought in the use of web technologies to make the framework more efficient, even though he did not say how. He revealed that extended enterprise call for cooperation among firms their supply-chain partners, as opposed to discrete activities across the supply chain. The extended enterprise concept builds on the SCM approach by seeing all the members and partners of a value network as working toward a common goal or opportunity, Ranganathan revealed. He stressed on the fact that integration of external value chain into the organization's internal value chain would yield new value configurations. He concluded that web technologies as well as traditional ITs have had a fundamental impact on inter-firm buyer–supplier relationships (Ranganathan et al., 2004).

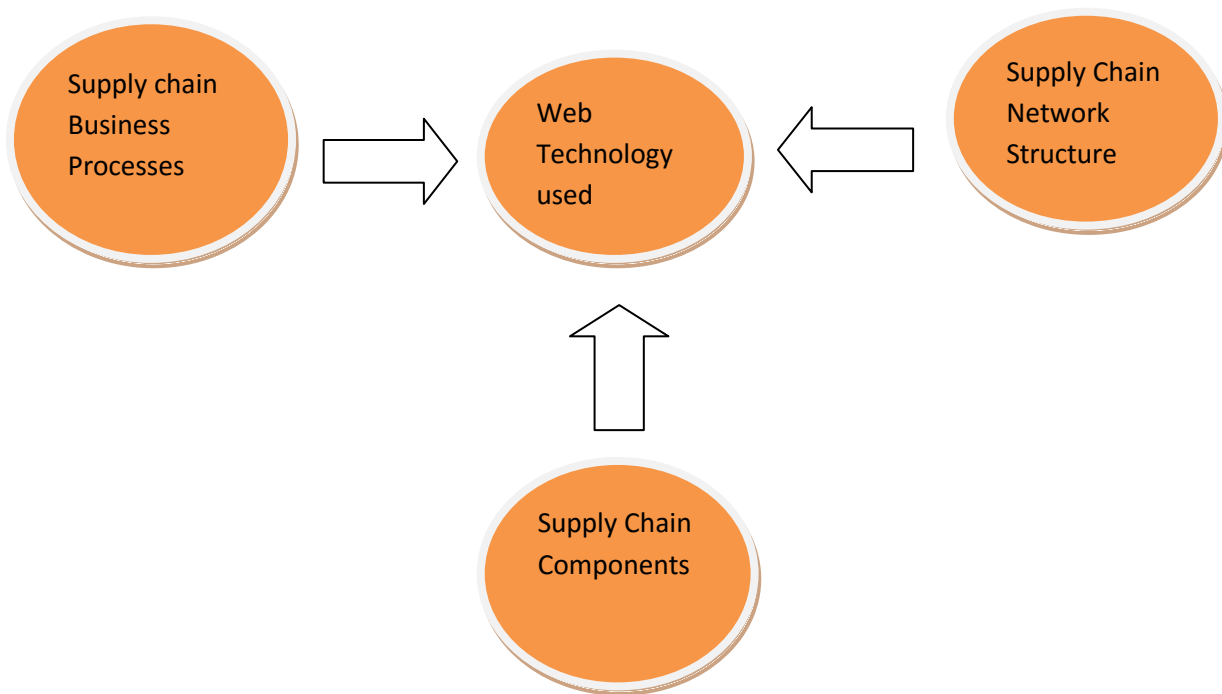
Lambart et al. (2005) did a good job crafting a framework that this research recognizes to be great work. They identified key elements in the supply chain function and that is not far from the truth, however, they left out the driving force that operates the elements of the supply chain function. That is, the factors that drive business in this era, there is leadership, there is workforce and the most important fact to that this research explores is technology. The management work better with the right technology, business processes are more effective with better technology and the structure of the supply chain itself need technology to guarantee it's performance.

1.10 Research Proposition

The proposition from this research is an improvement on the supply chain structure proposed by lambart and his team. The supply chain structure in Figure 1.2 above can be improved by reducing the “long process” of communication among the three elements. Providing a web platform that links all the three elements will make communication automatic and fast. If successful, it will increase the efficiency of the SCM that will result in better customer service, performance, customer satisfaction and long term financial benefits.

This framework can be adopted and customized by any industry. For instance, in the events industry, the use of web based platforms that would provide a customer with a data base of suppliers and their inventory among other information that they can to automatically place orders after which the planners can monitor the delivery. This would reduce the communications among the stakeholders and the costs associated with it. The use of web technologies in the supply chain management would result in an efficient supply chain model, better customer service that would yield customer satisfaction; improving the performance and profitability of event firms. Below is a proposed framework.

Figure 1.3 Proposed supply Chain Framework.



CHAPTER 2

LITERATURE REVIEW

2.0 Introduction: Event Industry

The events sector as observed by Uysal , Xiangping and Dwyer, the events is one of the fastest growing areas of the tourism industry (Korir, 2012). Nevertheless, Getz (2007) and Dwyer et al., (2007) point to events as important motivators of tourism forming part of the marketing plans of most destinations, yet, in most cases it remains largely unstructured and informal (Korir, 2012). Events ventures use resources and create economic costs and benefits in equal measure. Apart from provision of job alternatives, events raise the level of population participation in economic development, generate secondary income, enhance community stability, and are often considered to have minimal damage to the physical environment (Hall, 1996). Moreover, events industry is not necessarily capital intensive and is therefore less dependent on massive foreign investment thereby limiting the financial risk involved thus encouraging entrepreneurship and self-employment (Korir, 2012).

Getz (2005) noted that a principle applying to all events is they are temporary; every event is a unique activity stemming from the blend of management, program, setting and people (Getz, 2005). Shone and Parry explained that special events are phenomenon arising from those non-routine occasions which have leisure, cultural, personal or organizational objectives set apart from the normal activity of daily life, whose purpose is to enlighten, celebrate, entertain or challenge the experience of a group of people (Shone, 2004).

Events can be categorized on the basis of size or type. The largest events are called mega events; these are generally targeted towards international markets. Mega events can attract

significant visitor numbers and media coverage, as well as generating considerable tourism revenue and economic benefits.

Although there has been limited literature on SCM and web technologies in events industry in Ghana, there still, exists literature describing the general construct. Theoretical frameworks on how to integrate web technologies have been provided and have been critiqued and defended by many scholars. To understand why scholars take certain positions and argue the way they do, it is beneficial to expound their views on SCM, web technologies and the integration of the two concepts.

2.1 Supply Chain Management

Douglas Lambabart and Martha describe SCM as the integration of key business processes from end user through original suppliers that provides products, services and information that add value for customers and other stake holders (Lambart & Martha, 1998). Douglas et al. saw the supply chain frame work in a broad sense as a combination of closely inter-related elements that include: the structure of the supply chain, the supply chain business and the supply chain management components.

They believe these are the key general elements that any firm needs to focus their strategy for better efficiency and performance. Ranganathan describes supply chain management (SCM) as the coordination to all supply chain activities in order to deliver propositional value to customers (Ranganathan et al., 2004). He revealed that, in the era of rapid technological advancement and strategic evolution where competition sours, companies have resorted to not only being better in their products but also being efficient in the kind of service they offer (Ranganathan et al., 2004). According to the authors, SCM encompasses a range of activities, such as purchasing, materials handling, production planning and control, warehousing, logistics,

inventory management, distribution, delivery, and vendor management in manufacturing firms. They revealed that the primary objectives of the SCM function include cost reduction, service improvement, improved communication and interaction among supply-chain partners and increased flexibility in terms of delivery and response times (Ranganathan. etl, 2004)

David L Anderson, believed that managers increasingly find themselves assigned the role of the rope in a very real tug of war that is pulled one way by customers' and clients, mounting demands and on the opposite way by the company's need for growth and profitability (Anderson, 1997). Many have discovered that they can keep the rope from snapping and achieve profitable growth by treating supply chain management as a strategic variable (Anderson, 1997). This research attests to this analysis because Anderson reveals what managers have come terms with. First, event managers take supply chain as a whole with the links tailored to achieving tangible outcomes beneficial to the firm and the clients.

Believing in the importance of supply chain and in consistence with Anderson, tries to put into context his theory; *7 principles of supply chain management*. He proposed that in any firm of any industry, there are 7 principles that firms should stay tuned and consistent to. He proposed that firms should segment customers based on the service needs of distinct groups and adapt the supply chain to serve these segments profitably, this is a key principle that is promising to industries like events. To strike and sustain the appropriate balance between service and profitability, most companies will need to set priorities sequencing the rollout of tailored programs to capitalize on existing capabilities and maximize customer impact (Anderson, 1997).

Customizing the logistics network to the service requirements and evaluating profitability of customer segments are vital principles to a firms supply chain management. Companies have

traditionally taken a monolithic approach to logistics network design in organizing their inventory, warehouse, and transportation activities to meet a single standard. In events industry, it is designed to satisfy the toughest requirements of a single customer segment mostly comprising of clients requiring the same kind of events planned. His fifth principle of supply chain coincides with the real issue that this research is trying to address in the Ghanaian events industry where supply chain is concerned. He advises that firms should develop a supply chain-wide technology strategy that supports multiple levels of decision making and gives a clear view of the flow of products, services, and information (Anderson, 1997).

Pietro Evangelista & Edward Sweeney(2006) revealed that a great number of manufacturers and retailers have adopted the supply chain management (SCM) concept in the management of their businesses. In effect, the delivery system has become an integral part of their product, to the extent that transportation and logistics are as important as the product itself. The application of the SCM concept leads manufacturers and retailers to outsource only significant parts of their logistics as well as to select and reduce the number of logistics providers with which to establish long-term relationships for that elongate the supply chain cycle (Evangelista, 2006).

In explaining why supply chain is very important to any firm in recent times, Rhonda R Lummus and Robert Vokurka stressed on three reasons. They believe that companies have become more specialized and search for suppliers who can provide low cost, quality materials rather than own their source of supply (Lummus, 1999).

Consequently, it has become critical for companies to manage the entire network of supply to optimize overall performance. Moreover, these organizations have realized that

whenever a company deals with another company that performs the next phase of the supply chain, both stand to benefit from the other's success. A second reason partially stems from increased national and international competition. Customers have multiple sources from which to choose to satisfy demand; locating product throughout the distribution channel for maximum customer accessibility at a minimum cost becomes crucial (Lummus, 1999).

Previously, companies looked at solving the distribution problem through maintaining inventory at various locations throughout the chain. Customers' buying habits are constantly changing, and competitors are continually adding and deleting products and services. Demand changes make it almost a sure bet that the company will have the wrong inventory. The cost of holding any inventory also means most companies cannot provide a low cost product when funds are tied up in inventory (Lummus, 1999). A third reason for the shift in emphasis on the supply chain is due to a realization by most companies that maximizing performance of one department or function may lead to less than optimal performance for the whole company (Lummus, 1999). The authors revealed that purchasing may negotiate a lower price on a component and receive a favorable purchase price variance, but the cost to deliver the finished product may go up due to inefficiencies in the delivery. Companies must look across the entire supply chain to gauge the impact of decisions in any one area.

Web Technology

2.2 History of the World Wide Web

The World Wide Web (WWW or simply the Web) is a global information medium which users can read and write via computers connected to the Internet (Tim, 2000). The history of the Internet dates back further than that of the World Wide Web and it was as result of the internet that the web emerged. The Internet is a descendant of Advanced Research Projects Agency Network developed for the US department of defense whose initial goal was to research the

possibility of remote communication between machines. This research resulted in the discovery and development of the Transmission Control Protocol (TCP) or Internet Protocol (IP) (Tim, 2000).

The web works through the Hyper Text Transfer Protocol (HTTP) and Hyper Text Markup Language (HTML) which is a standard protocol for transferring web content developed by Berner's Tim Lee in 1990s. Since then, the www has undergone vast transformations from its inception to the US dotcom bubble, burst and after math.

The low interest rates facilitated an increase in start-up companies who did online business. When the economic bubble burst in 2001, many of them ran out of business. Many others, however, did survive and thrive in the early 21st century. Many companies which began as online retailers blossomed and became highly profitable. The sites that survived and eventually prospered after the bubble burst had two things in common; a sound business plan, and a niche in the marketplace that was, if not unique, particularly well defined and well-served (Tim, 2000).

In the aftermath of the dot-com bubble, telecommunications companies remained with great deal of overcapacity as many Internet business clients were no more. During this time, few companies found success developing business models that helped make the World Wide Web a more compelling experience. These include airline booking sites, Google's search engine and its profitable approach to keyword-based advertising, as well as eBay's auction site and Amazon.com's online department store (Tim, 2000). This new era also begot social networking websites, such as MySpace and Facebook, which gained acceptance rapidly and became a central part of youth culture (Tim, 2000).

As Internet connectivity becomes ubiquitous, business firms have started to leverage the expanded computing power of their devices to enhance their usability and capability. Through Internet connectivity, manufacturers are now able to interact with the devices they have sold and shipped to their customers, and customers are able to interact with the manufacturer to access new content.

2.3 What then are Web technologies

Web technology is the establishment and use of mechanisms that make it possible for different computers to communicate and share resources using the http protocol (Tim, 2000). Web technologies are infrastructural building blocks of any effective computer network: Local Area Network (LAN), Metropolitan Area Network (MAN) or a Wide Area Network (WAN), such as the Internet. Communication on a computer could never be as effective as they are without the plethora of web technologies in existence (Tim, 2000).

2.4 Web technologies and Supply Chain Management

Research by David Chou revealed that companies strive to improve market share, grow corporate profit, and gain strategic advantage. In order to achieve these goals, supply chain competency must be placed at the heart of a company's business model. Firms realize that the competition is driven by customer demand. Effective supply chain management can offer customers high quality products and services at lower prices. Just like enterprise resource planning (ERP) and customer relationship management (CRM), SCM is also an important component of extended enterprise applications.

The connectivity of the supply chain network is easily realized through the intranet and extranet that exists within and across firms. SCM applications utilize these networks aiming to control costs, reduce paperwork and lower inventory (Chou, 2004). Electronic data interchange

(EDI) has been heavily used in industries. Chou and his team revealed that nowadays, the Internet and the World Wide Web are widely accepted since they broaden the scope of connectivity among individuals and businesses (Chou, 2004), this is validated by the response received from the respondents of this research; business has shifted to the internet.

2.5 Web Technologies and Supply Chain in the Current Business Environment

In view of current rapid advancements in technology, most firms in all industries are moving from locked in customer service to integrated fast service called extended enterprise. With competition from competitors, most firms resort to better, differentiated and faster customer service. To achieve this, there is need to reduce the process time for both customer service and production, in short, the entire supply chain needs to reduce process time to cope with the business macro environment.

Over the past years a combination of economic, technology and market forces has compelled companies to examine and reinvent their supply chain strategies. Some of these forces include the globalization of businesses, the proliferation of product variety, increasing complexity of supply networks, and the shortening of the product life cycles revealed Haul L Lee (Lee, 2001). To stay in sustainable competitive advantage, most enlightened companies have strived to achieve greater coordination and collaboration among supply chain partners. Lee called this approach “supply chain integration” (Lee, 2001). Information technology, and in particular, the Internet that supports the emergence of web technologies, play a key role in furthering the goals of supply chain integration. While the most visible impact of the Internet has been in the emergence of electronic commerce as a new retail channel, it is likely that the Internet will have an even more profound impact on business-to-business (B2B) interaction,

especially in the area of supply chain integration(Lee, 2001). The integration here is very vital to a firm's performance.

Francis Garaba, gave limits to these technologies if they should be used in supply chain. He revealed that technology should be well targeted to the right stakeholders. The responsibility of targeting technology is upon the architect to ensure that these are tailor made to suit the targeted audience, which calls for innovative and imaginative strategies shaped by the dictates of the situation (Garaba, 2012).

A major attack on the use of technology in supply chain comes from Ashish Garg who argued that that as much as there is growth internet usage and a great rise in the use of web technologies in supply chain, most firms are struggling against security of their information(Garg, 2003). There are always cases when companies lose their information as a result of web technologies used. This cost is substantial and mostly high in terms of reliability in the view of the customer. He also argues that the dependence on technology by so many firms in sourcing high, this puts firms at risk, if technology fails then it is hard for them to operate.

2.6 Literature Analysis

Almost all the reviewed literature places great emphasis on the fact that supply chain is very essential to the efficiency of any firm in any industry. Ashish Garg brought up a very interesting direction of this topic that is worth researching. As much as Ranganathan et al., David Chou et al. and Haul L Lee advocate for the use of web technologies in supply chain, Garg believes there is very high security risk and over dependency on technologies by firms makes it worse. In consistence with him, this paper recognizes the issue of information security among

firms using web technologies in their SCM function. The fact is that, it is true security is a huge problem; however, companies trying too hard to avoid risk end up in low financial benefits. The higher the risk, the higher the financial benefits realized from it, that is a business principle. With regards to over dependency on technology, this research takes the opposite direction from his view. Nowadays, technology is driving business. A company that shuns technology at the expense of their supply chain efficiency will never catch up with competitors who are way advanced in technology. In the business of today, technology is a necessity, not a want.

In consistent with Douglas et al, this research shares the idea of the structure of the supply that is summarized in three elements; structure of the supply chain, the supply chain business and the supply chain management components as elements that are inseparable in any supply chain management system. David Anderson proposed the seven principles of supply chain, out of the 7, this research agrees with 5 that have a significant relationship with supply chain and can cut across any industry. For instance, listening to market signals and align demand planning accordingly, across the supply chain, ensuring consistent forecasts and optimal resource allocation. Firstly, consistent demand project is close to impossible and listening to market signals poses no bigger threat except it leads the firm to a confused state because market conditions are always evolving.

Managing sources of supply strategically to reduce the total cost of owning materials and services is the most important aspect of a firm's supply chain most especially an event planning firm that needs not to keep inventory in the warehouse. It is not about having a great negotiator that helps slice supplier prices, the best approach to supply is to have as many players as possible fighting for their piece of the pie that's when you get the best pricing (Anderson, 2015). It is only logical that while firms should place high demands on suppliers, they should also realize that

partners must share the goal of reducing costs across the supply chain in order to lower prices in the marketplace and enhance margins. The logical extension of this thinking is gain-sharing arrangements to reward everyone who contributes to the greater profitability.

Unlike Lambart et al who viewed supply chain in a holistic general view with three inter-linked elements, this research realizes that Lambart et al did not consider effective communication among the three elements, this research takes into consideration the fact that it is not easy to communicate among the three elements. That is why a modified model of supply chain is proposed (modified from that of Lambart et al), one that introduces another element; web technologies to enhance communication among the other three components.

In consistence with Lee, this paper takes into considering that there are four key dimensions in which the impact of web technologies on supply chain can be manifested. The table below shows these dimensions and their benefits to the firms.

Figure 2.1 Dimensions of web impact on supply chain.

| Dimension | Component | Gains/Benefits |
|---------------------------------|--|--|
| Information integration | Information sharing & transparency Direct & real-time accessibility | Reduced bullwhip effect Early problem detection Faster response Trust building |
| Planning synchronization | Collaborative planning, forecasting & replenishment Joint design | Reduced bullwhip effect Lower cost Optimized capacity utilization Improved service |
| Workflow coordination | Coordinated production planning & operations, procurement, order processing, engineering change & design Integrated, automated business processes | Efficiency & accuracy gains Fast response Improved service Earlier time to market Expanded network |
| New business models. | Virtual resources Logistics restructuring Mass customization New services Click-and-mortar models | Better asset utilization Higher efficiency Penetrate new markets |

CHAPTER 3

METHODOLOGY

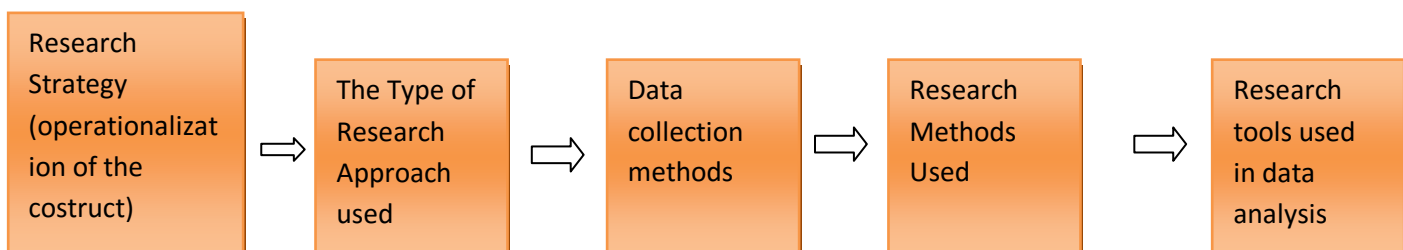
3.1 Introduction

This section of the research explains the methods used in research. This section explains the research approach, research strategy and research methods. This study looks at the supply chain framework of event planning firms in Ghana. The **assimilation level, supply chain efficiency** and **event success/customer satisfaction** are the main variables used to explain this construct.

3.2 Research Design

Bellow is the structure of the entire research design including the inquiry structure.

Figure 3.1 Methodology Design



To decide what method of data collection and analysis best, it is best to go back to our research questions and objectives to know exactly what is required. These are our research questions;

- 1) Is there a relationship between web technology assimilation and supply chain efficiency?
- 2) Do Web technology systems create any significant value in the SCM function of events firms in Ghana?
- 3) How does the level of assimilation of Web technologies into SCM affect the benefits firms realize from it?

Our main objective is to understand the supply chain framework and the importance of web technologies in the supply chain function.

The hypothesis, in this case we call it proposition says that: Web technologies have a positive impact on the supply chain function of event planning firms.

To prove or disprove the hypothesis, information about the supply chain framework, web technology utilization and technology assimilation in the industry is required and will play a major role in the conclusion.

The key variables to be used are;

- 1) **Web technology level of assimilation** - This refers to how well or fast the firm is to adapting to new technologies.
- 2) **Technology system streams used in supply chain** – the type of technology systems used in the supply chain management
- 3) **Significance of technology to supply chain function** – a rating of how important technology is in their supply chain management.
- 4) **supply chain efficiency**- how well and efficient the supply chain is

- 5) **event success/customer satisfaction-** degree of how happy clients are with the service

For the sake of the above variables, hypothesis and research questions to be answered, the following methodological decisions were made.

3.3 The strategy of the Research employed

In this study, both exploratory research and descriptive research strategies are employed. This implies the use of explanatory research, descriptive research, and exploratory research. Explanatory research builds theories that explain and predict natural and social phenomena, hence, its use in this research. Because of the limited literature on the topic, exploratory research helps this research in building a theory using reasonable variables. Exploratory research used here is for the sake of deeper understanding of the construct.

In order to get a deeper understanding of the construct and explore and be able to build a theory to help with a supply chain framework, explanatory, descriptive and explorative research strategy are employed.

3.4 Research Approach

This research employs qualitative research and just negligible quantitative methods. This research is skewed towards qualitative research because of the need to dig deep into the existing supply chain frameworks which require theoretical responses from respondents.

This is done to gain in-depth understanding of the construct. This approach helps to understand the Ghanaian events planning industry and SCM technologies they employ. This research better suits this type of study because of it aim to understand a phenomenon. Analyzing

numbers alone may not be able to reflect the impact of web technologies on supply SCM. It is by interacting with respondents and getting their attitude towards the assimilation of web technologies that may explain why the low or high assimilation having low or higher SCM performance respectively. Thus, as much as data validates, the major explanations in the construct stems from qualitative research.

3.5 Research Methods

One on one unstructured and structured interviews and questionnaires best were used for this research. The use of structured interviews is as a result of the type of respondents who were interviewed.

The population of respondents included people with knowledge about supply SCM in event planning firms this implies all workforces (supply chain managers, overall managers and other employees in event planning firms). Because the information needed was very deep, only chief executive officers who know and understand the supply chain framework were interviewed. These are busy people whose focus is business and not just casual conversations, hence structured interviews were employed. Analysis of data is based on both secondary and primary data. However, it is skewed towards primary data because there is limited literature on the topic.

3.6 Sampling methods

Purposive sampling was used, specifically “judgmental” because there was need for respondents with in-depth knowledge about the topic. This is based on the knowledge and expertise of the respondents, the relevant of the respondent to the study matters, hence the purposive sampling method (Sarantakos, 2005). Convenience sampling was also used because in

the process of data collection, it was not easy to reach the CEOs of the planned firms, so whoever was around was interviewed. A sample size of 3 chief executive officers was reached.

3.7 Data collection

Secondary data from the internet, books and other data sources as well as primary was collected to validate the existence of the problem. Primary data was collected from members of the events planning industry and secondary data from different online journals and books. CEOs of three major event firms were interviewed. Phone calls emails and Skype interviews were used because sometimes it was impossible to meet the respondents. Questions on the supply chain framework, types of technologies used, communication among stakeholders and assimilation level of technologies were asked.

3.8 Data analysis

The analysis of primary data was done in Atlas.ti, excel and MaxQDA. Qualitative statement analysis was done to find out the dominant technologies, assimilation levels of these technologies and to what degree each technology is significant to the supply chain management. Data was first grouped in three, supply chain related, technology related and technology in supply chain related. It was run through MaxQDA for analysis. To validate the findings, the same data was run in atlas.ti. The items for measuring assimilation tapped the extent to which Web technologies and applications were used in internal supply-chain activities. Assimilation was assessed by asking respondents about the extent to which they used Web technologies and applications in three internal SCM activities: (a) supplier selection (getting quotes, bids) (b) order processing (communicating with planners or clients on the accessory), (c) rendering of service (make-up, decorations and cakes).

3.9 Methodology Limitations

The targeted respondents were very busy people; the data collected may not be up to date or reliable because of the time consciousness of the responds.

Moreover, with business people who are there to make profit, talking to them about something that might create cost for them is not so interesting; they easily get carried away by what matters - profit making and might not respond reliably.

The limitations of the research are that, within the short time frame, it seems impossible to measure firms performance as a result of the supply chain structure proposed.

Moreover, limited data in on the topic dictates that primary data must be heavily depended on. What if data collection does not seem reliable enough?

CHAPTER 4

FINDINGS & DISCUSSION

4.1 Findings

To understand the findings, we can go back to our problem statement. The problem is that supply chain in the industry is clustered with inter-firm communication; therefore, it is very slow and inefficient, as a result, it affects the firms' performance their customer service. The proposition for this research was that Web technologies have a positive impact on the SCM of events firms which results in the firms' higher operational efficiency and performance. After interviewing three Chief Executive Officers from Prime shades events, Rachelle events and Purple Twirl, one factor that was consistent was that they all use a long process of communication among planners, clients and suppliers. Let us look at the major findings of this research.

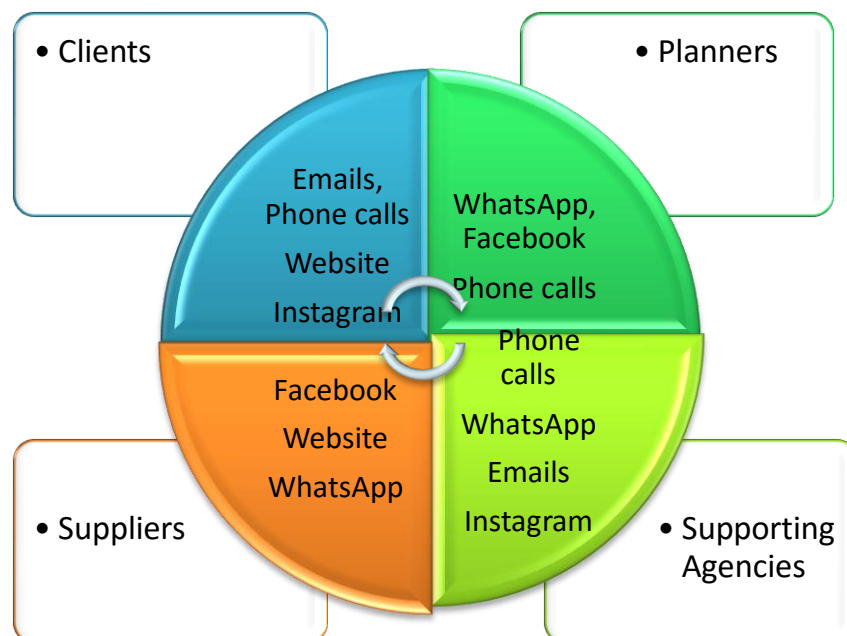
4.2 Supply Chain Frame work

Event firms have a lot of stake holders involved in their operations. In this chapter, we shall focus on the three (3) essential stake holders, these include, clients, planners and suppliers/vendors. Across the three firms that gave deep information about their supply chain frameworks, one aspect that was constant was the long communication process among them. Clients, whether international or local get to know about planners over the internet or through referrals. After getting details from Internet platforms such as instagram, these clients either send an email to the planners or call them via mobile phone. When they receive the call, event planners engage with the client to understand the type of event, budget to work within, venues in mind and other details needed for the event. Planners usually instruct the client to write an email indicating everything needed for the event. This email serves as guidance to the planners during

the planning process. Events require a lot of accessories that most event companies do not own. However, most of the firms have a network of suppliers they call vendors.

Adwoa of Rachelled events in an interview said, “Events require a lot of equipments, I do not have all the necessary equipments, but I outsource. I have a list of suppliers that I work with, I call them vendors.” Most of the interviewees mentioned that they have a list of vendors and the communication required to procure accessories is most dependent on the type of clients they deal with. Rachelle mentioned that, some clients usually prefer having their own vendors, whom they have chosen long before, others like to leave everything to the planners, so communication among the three parties is not mutually exclusive. To sum up, the clients communicates to both planners and suppliers, suppliers communicate to clients and planners and planners communicate to suppliers and clients. Figure 4.1 below shows a representation of the discussed supply chain framework and communication tools.

Figure 4.1 Events planning supply Chain Framework



4.3 Communication Among the Event firms' Stakeholders

As explained earlier in this chapter, communication among the parties was the issue of concern among all the Chief Executive officers interviewed for this research. Communication run from the clients to suppliers to planners and back to clients. This communication process is vigorous, Planners handle lots of events at the same time, suppliers are booked by multiple event firms at a time but clients seem to require all the attention from both the planners and suppliers. Usually, planners receive a lot of messages, emails and phone calls from clients. Clients also call suppliers they are interested in to do negotiations on their accessories. This back and forth communication makes work difficult for planners, revealed Sheila Enuson, CEO of Prime shades Ghana. *Mostly, clients make communication and negotiation very difficult for all stake holders involved, she concluded.*

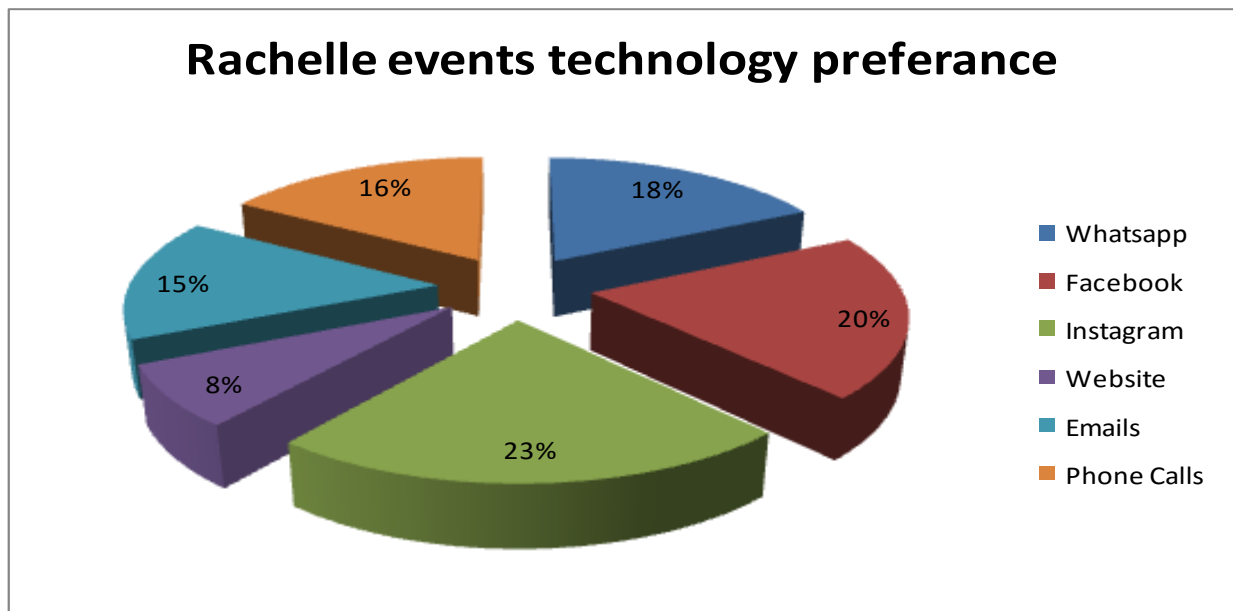
4.4 Technologies Used By Ghanaian Event Planning Firms

The Ghanaian community is embracing technology in all forms of life. However, technology in an industry such as event planning is not an easy task to implement. To use technology in this industry, all stake holders must be comfortable with it. This implies that, if a technology has to be used, it should be known to the clients, vendors, planners as well as any other supporting agencies. Abokuma, the CEO of Purple Twirl revealed that, for a technology to work well in the Ghanaian event industry, it has to be convenient to all users and must be as simple as it can be. Purple Twirl tried to use a wedding app, Abokuma revealed that it failed because people were not ready to utilize it. She said, *"We got a trial version of a certain wedding app, we were even given extra two months, however, it did not work because it was just too much to learn in a short while!"* Ghanaians are more inclined to mobile applications as opposed to other web applications. When asked about the web applications used in the

industry, the three CEOs revealed that their customers prefer using application on mobile than going to website. Most widely used applications include Instagram, WhatsApp, Facebook, Viber, emails and phone calls. Respondent were asked the technologies they used in supply chain. Later one, they were asked to give each technology a level of significance/importance on a scale of 1-100. This was analysed for each firm and across firms. Visualisation of the data is as shown below.

4.5 Rachelle Events Technology Preference.

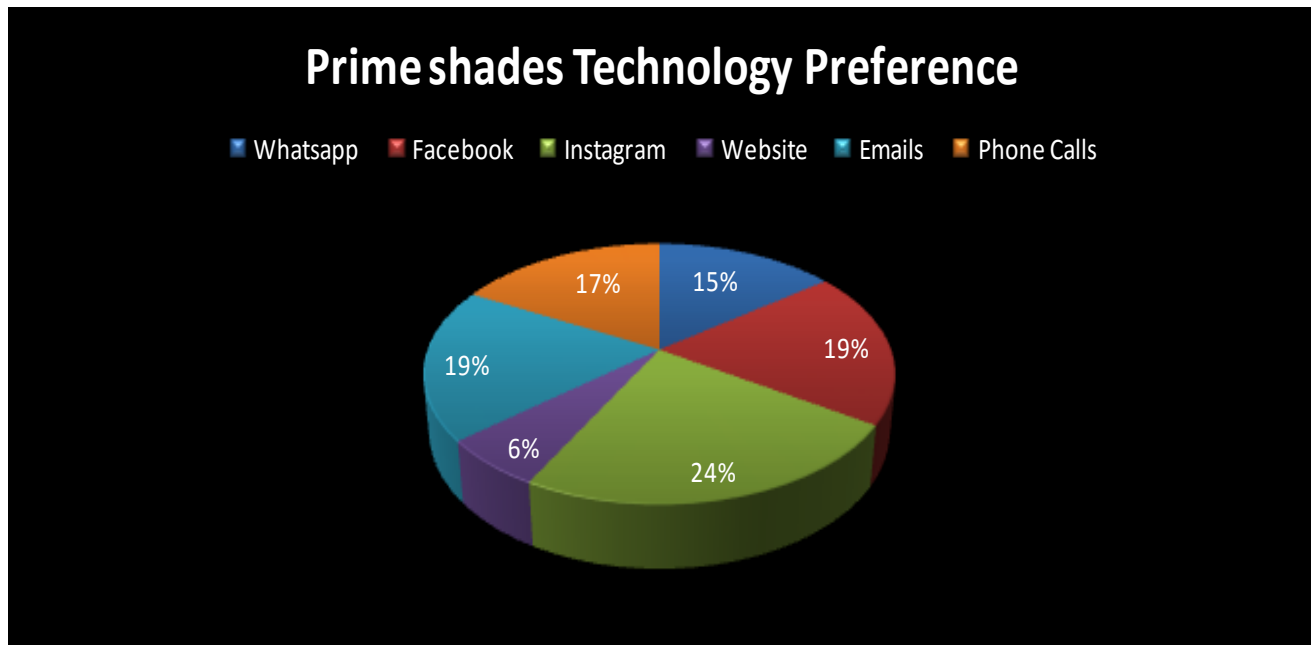
Figure 4.2 Technology Preferences 1



4.6 Analysis

23% of Rachelle events communication to suppliers and clients is through instagram, followed by facebook with 20%, WhatsApp 18%, Email 16% and their website with 8%. This implies that Most of the clients know Rachelle Events through instagram or facebook. Few clients, especially international clients reach them through their websites. After getting their details, they email them or call them. After they have discussed their terms, they mostly use whatsapp groups to do the planning in different departments.

Figure 4.3 Prime Shades Events Technology Preference

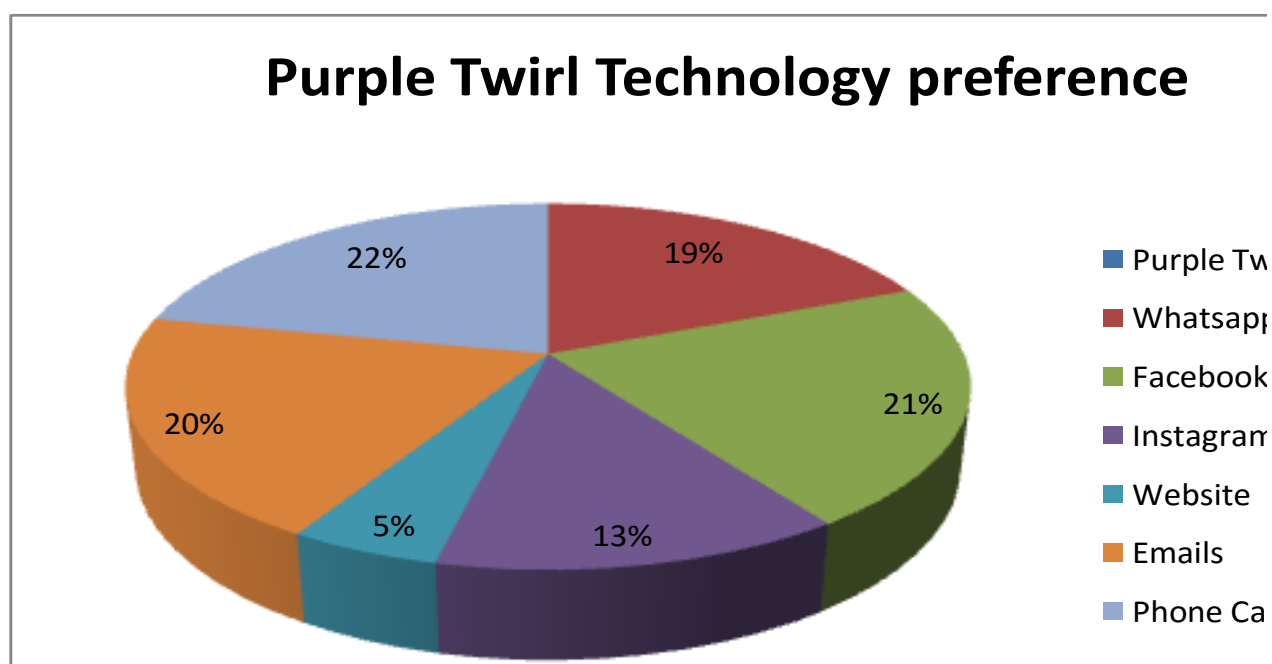


24% of communications to clients and suppliers at Prime Shades are done through Instagram, followed by Facebook and Emails with 19%, phone calls 17%, WhatsApp 15% and 6% through emails. These values show that Instagram and Facebook are mostly preferred for communication used whereas the web site is still least utilized.

Sheila Enuson, the CEO of Prime Shades Events revealed that the most disturbing thing to her is when clients keep calling or when they are required to send emails and they do not. The clients call or email to explain everything about the event, for instance, the type of event they want and their budget. Even though she has most of the accessories used in décor, she also has different agencies that do different event preparation activities that she usually communicates with. Invitations are done by an invitation vendor, then printing, stationary, sound by PS system, stage people is another agency, jewelry, wedding gown vendors, church, chairs etc, all these

people are part of my vendor list who are now a net work. *“When it comes to technology, I can say it is the air I breathe,” said Sheila. Technology help us in our work but there is need to be well inclined to get work done fast*”, she concluded. Most international clients use the website sometimes to get their details. Ghanaian clients usually get contacts from instagram, they call or send an email to the planners and afterwards, whatsapp is usually used for communication among her various vendors.

Figure 4.4. Purple Twirl Events Technology Preference.



At Purple Twirl, 22% of communications are done through phone calls, followed by Facebook with 21%, Emails with 20%, WhatsApp with 19%, instagram with 13% and website with 6%. Facebook and phone calls are most widely used in this firm. The same pattern of the web site being the least utilized appears.

Abokuma of Purple Twirl event firm revealed that clients usually call on phone or send an email. They tell them about the event then they refer them to different vendors who provide

accessories based on the budget and the type of event. Most of the clients come through referrals and international clients are the ones they refer to vendors. The communication requires technology. Abokuma revealed that her work is not easy, to coordinate vendors and clients during a planning process, she uses whatsapp, emails as well as facebook.

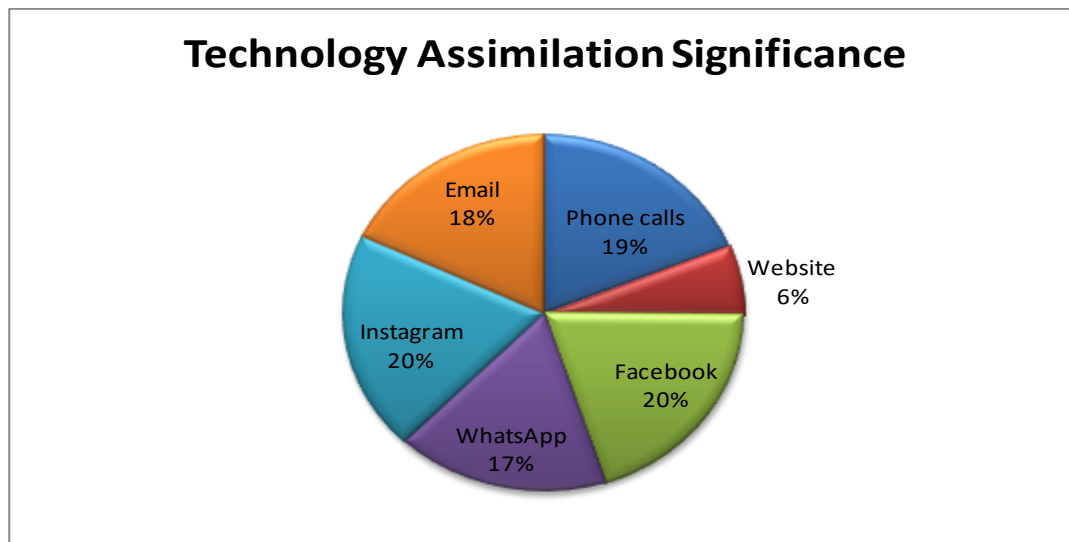
The technology preferences were compared across firms and below is a table that summaries it.

Table 4.1 Technology Significance across the firms

| Technology | Purple Twirl | Prime shades | Rachelle | Total Assimilation |
|-------------|--------------|--------------|----------|--------------------|
| Phone calls | 22 | 17 | 18 | 57 |
| Website | 5 | 6 | 8 | 19 |
| Facebook | 21 | 19 | 20 | 60 |
| WhatsApp | 19 | 15 | 18 | 52 |
| Instagram | 13 | 24 | 23 | 60 |
| Email | 20 | 19 | 15 | 54 |
| | | | | |

Plotting these values resulted in the following comparison figure.

Figure 4.5 Significance of Technology Assimilation



After a cross analysis of the technologies used by the three event firms, it was evident that instagram and facebook play a key role in communicating to clients and suppliers. Phone calls, which most of the respondents mentioned, is another key tool in the communication process among the three parties. Phone calls take 19% of the total technology significance. Emails come next with 18% because it the communication medium between the planners and the client during the planning process. Whatsapp takes 17% and is said to be useful in coordinating planners and suppliers. *“What I usually do with my vendors is that, I create whatsapp groups for them, for instance those handling videography and photography and so on...,”* said Adwoa. It appears that Whatsapp is the fastest mode of communication among the parties during the planning process.

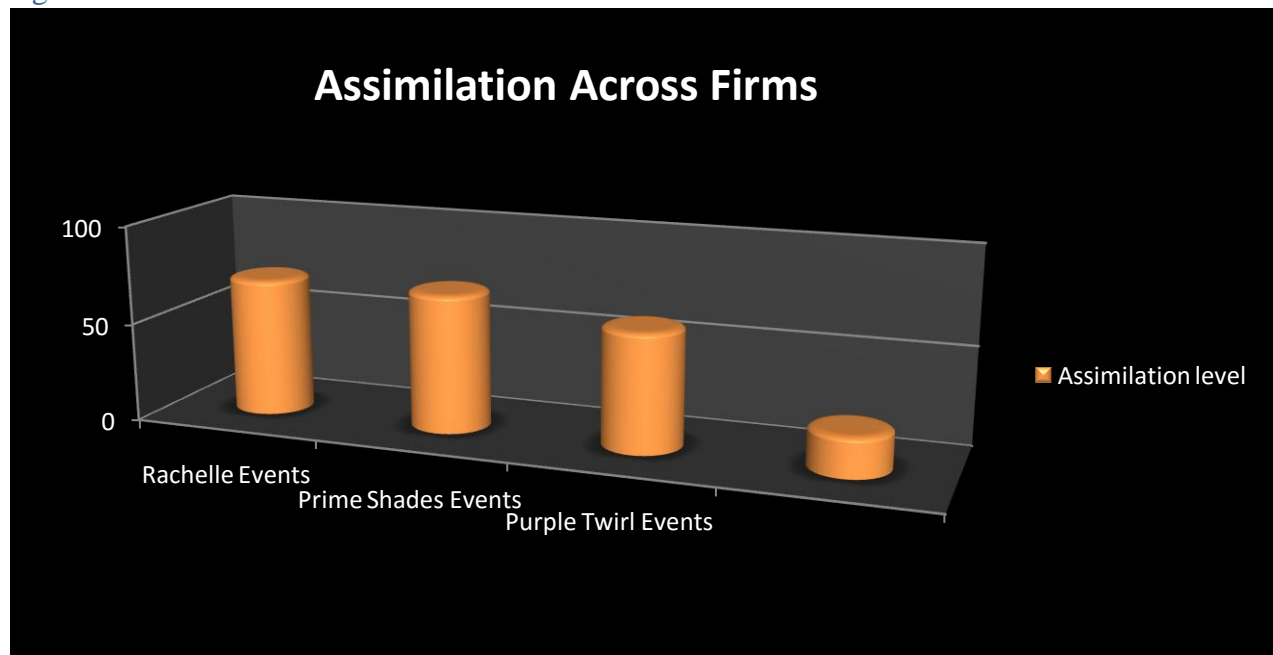
Their websites takes only 6% of the significance because as much as it is used for advertising and showing their work, it is no used for communication or making their supply chain easier. The people who usually use their websites are international clients and that is only to know what the firm does and get their contacts. With this analysis, it would be fair to say that Ghanaian clients in the industry do not like using websites.

Figure 4.5 shows technology assimilation levels across firms.

Technology Assimilation level For Each Firm.

Assimilation here refers to how well event firms are able to adapt and retain technologies

Figure 4.6 Assimilation Levels across the Firms



When asked to rate assimilation levels within their firms and as well as the clients working with them, the three CEOs could only talk for their firms. They could not account for their clients because they work with different clients with different technological orientation. Adwoa pointed out that she could not easily tell the assimilation level because some vendors she works with only appears when they are needed. If it happens that they miss the orientation, they end up not being able to use the technology. However, she revealed that Rachelle Events is always after new technologies, they are currently working on a radio frequency to help them with their internal communications. Their technology assimilation level is at 70%. Unlike some clients and vendors, planners within the firm easily adapt to new technologies.

Prime Shades has most of their internal processes lessened by delegating to other supporting agencies. For instance, make-up, photography and wedding dress making are done by different agencies, revealed Sheila. Technologies, whether websites or mobile applications play a key role in the communication between the firm and different agencies. “*Sometimes, it is not*

easy to even get an email from a client, in situations where I cannot reach a supplier; I simply walk to their stores! But whatsapp helps a lot”, said Sheila Enuson. She also revealed that their assimilation level is around 70%.

At Purple Twirl Events, technology is a key ingredient in the supply chain process. Even though they outsource most of the accessories, communication between them and the vendors require efficient technologies in order to keep up with the planning process. Abokuma mentioned that she assimilation levels within the firm are at 60%. *“There are different clients and suppliers that I work with, I cannot speak for them where adaptability to technology is concerned, but as a firm, we are not bad at technology, we are actually building our own system”, said Abokuma.*

4.7 Ghanaian Events Industry Experiences with Web Technologies in Supply Chain.

Rachelle Events, Prime Shades Events and Purple have are very active websites. From responses given by the CEOs, it was evident that their websites are mainly used for marketing and not for supply chain. When asked how they keep their clients in the system, all the CEOs responded the same way. They revealed that they their work speak for them. They make sure they constantly post their events and pictures on their websites for people to see what they do. Additionally, they add a session where clients post their testimonies, thus serving as a marketing media. This unveiled the main work of the web site; to market their work and attract new customers.

Supply chain management is usually done on emails, phone calls, social media and even on personal encounter. The technologies widely used for supply chain management are mobile applications and not necessarily web sites; only 6% of communication in firms are done through websites. Assimilation of web technologies in Ghana is not as high as the assimilation of mobile technologies. Abokuma, CEO of Purple Twirl revealed that the failure of the wedding app they

once tried was not entirely a result of its complexity, it was not suited for the Ghanaian clients. The people were not willing to assimilate the technology. The Ghanaian community does not easily adapt to new technologies, this affects the use of technology in event firms because they work with people and if people are not willing to use technologies, then there is nothing much to be done. The low assimilation of web technologies is a result of the Ghanaian community. Moreover, Ghanaians are more conversant with mobile applications than websites. This makes it very difficult for event planners to use their website for supply chain management.

4.8 Way Forward With SCM Technologies in the Industry.

Sheila revealed that using technology in her industry is not that easy. Sometimes it is not even easy to get an email from her clients. Abokuma added that when she tried to use the wedding up, she could not succeed because the major issues of supply chain may not even be because of technology. Adwoa revealed that technology is hard to implement because people who are supposed to master the technologies, usually vendors, are not permanent in the firm. Vendors work for other firms and clients might only plan one event with them. This makes it hard to implement technologies in the industry.

When asked how they envision a technology that would make supply chain easier, all of them responded with a similar idea. Adwoa said, *“I would love an application that has everything a client may need!”* The app should have a list of vendors with all their accessories. These accessories should have prices attached and all the details needed to get to the supplier. Vendors may be listed on other firms’ websites as well. *“It is up to the client to choose the package that matches their budget right before contacting us. This will help us reduce the number of phone calls we receive, it can also give an opportunity for the client to communicate to the vendor and what we do is only offer assistance”*, said Adwoa.

Sheila explained that, *“The communication process between planners and vendors as well as between planners and clients is very tiresome. It will really be of help if we can have what we already keep as a vendor list on our website. All vendors should have a number of accessories to offer. The clients will have to decide from the web site, what exactly they want from the web site so that we can be spared from many phone calls.”*

Abokuma also responded in the same way. She placed an emphasis on having vendor list on the website. Planning events for clients involves very tiresome series of activities, it is not easy to handle clients. If there is a central place where suppliers can display their accessories, it will be easier on planners and clients. This would reduce communication between clients and planners as well as suppliers and planners.

4.9. Are Our Research Questions Answered?

The focus of the research is how the assimilation of web technologies can affect the supply chain, the better our adaptation, the more efficient our supply chain is and the more clients we satisfy, it becomes a long list of benefits for the firms in the events industry. Now let go back and look at the research question we set for this research and confirm as to whether they have been answered or not.

1) **Is there a relationship between web technology assimilation and supply chain efficiency?**

The main focus of each event planning firm is to put a smile on their clients' faces. Their supply chain efficiency depends on the technology tool they use for communication and planning. When asked whether there is a relationship between technology and their supply chain efficiency, below is a table of answers from the CEOs.

Table 4.2 Relationship Between Technology and Supply Chain

| Rachelle Events | Prime Shades Events | Purple Twirl Events |
|--|---|--|
| Yes. The better our adaptation, the more efficient our supply chain is and the more clients we satisfy, it becomes a long list of benefits for the firm. | Yes. Technology is accessed by almost everyone, the more you are inclined to technology the better your supply chain. | Yes. The better we are at technology, the more efficient we are at doing our work, because everything now is technology. |

What event planners call as supply chain efficiency seems to be different from what we know to be supply chain. To event firms, supply chain is a process of coordinating business process and acquiring accessories that would help in the planning of the event with the aim of putting a smile on the faces of their clients. This means, they consider how to get the job done as fast and as efficient as possible making sure they are working within the budget of their client. Following this definition of supply chain, we can confidently say there is a relationship between supply chain efficiency and the technologies used. As revealed from the interview, the better events firms are in utilizing technology, the faster they are at doing their job which is to put a smile on their clients' faces.

2) Do Web technology systems create any significant value in the SCM function of events firms in Ghana?

As discussed earlier, Ghanaian event planning clients are not prone to visiting websites. Most of the clients who utilize websites in the industry are internationals, and not for the purpose of supply chain but to get the firms' contacts and see what they do. Figure 4.7 above shows the significance of technology in the supply of the events industry. Most

utilized technologies range from instagram and facebook to phone calls, emails, whatsapp and the websites. Looking at the technologies, you can agree with me that they are usually done on mobile phones. However, to fully understand whether web technologies have a significant value on the supply chain function, we take look at what technology among them qualifies to be a web app.

A Web app is typically built using HTML5, CSS and JavaScript. It requires a browser and Internet connectivity to run. A (native) mobile app is typically written in a language that's specific for an operating system, such as SWIFT for iOS and C# for Windows. A mobile app requires a native on-device distribution mechanism, like Apple's AppStore, to make it on the device. Native apps can run without connectivity, however, to provide any sort of meaningful functionality, data exchange via an Internet connection is required.

Facebook and instagram are hybrids between web and mobile apps. Emails and websites are web applications. Whatsapp is still can also be used over a browser. All in all, most of these technologies used in the industry can be web or mobile applications. Looking at their usage in the industry, it is evident that web technologies have a significant impact on the supply chain function. However, the Ghanaian community prefers the mobile versions of these applications as opposed to browsing over the internet. Some of the mobile versions of these applications are cheaper to use and require no browser to access them. This makes information exchange easier and efficient for the Ghanaian events industry.

3) **How does the level of assimilation of Web technologies into SCM affect the benefits firms realize from it?**

There are perceived benefits of using technology in supply chain. The obvious benefit we can all assume is that work gets easily done with technology than without it. With the events industry, communication is very vital to all their operations, to do this, they cannot do away with technology. *“Technology is the air I breathe, it just makes my work easier”*, said Sheila of Prime shades events. Technology is what keeps the industry communications going, aiding supply chain activities and keeping the industry in the game.

4.10 Discrepancies between what was expected and the actual findings

The title of the research says everything about what type of technologies the research was targeting. The expected findings were that clients, planners and suppliers in the events industry use their websites for supply chain even to a minimal extent. The findings of this research revealed that websites are not used for supply chain purposes. Web sites are mainly used for marketing and a small level of communication among stake holders. On the overall technology significance, websites take only 6%. It was not expected that Ghanaians use more of mobile applications than web applications, but the results revealed it.

4.11. How the findings are linked to the theoretical framework

Initially, the supply chain framework was viewed through a general lens; structure if the supply chain, the supply chain business process and the supply chain management components, these are the three elements that capture the essence of supply chain management. Implementation of SCM involves identifying supply chain management members, the processes needed to link them to and the type integration that applies to each process link. Not all this

holds any longer, because the event industry has a specific supply chain framework that places the customers at the center.

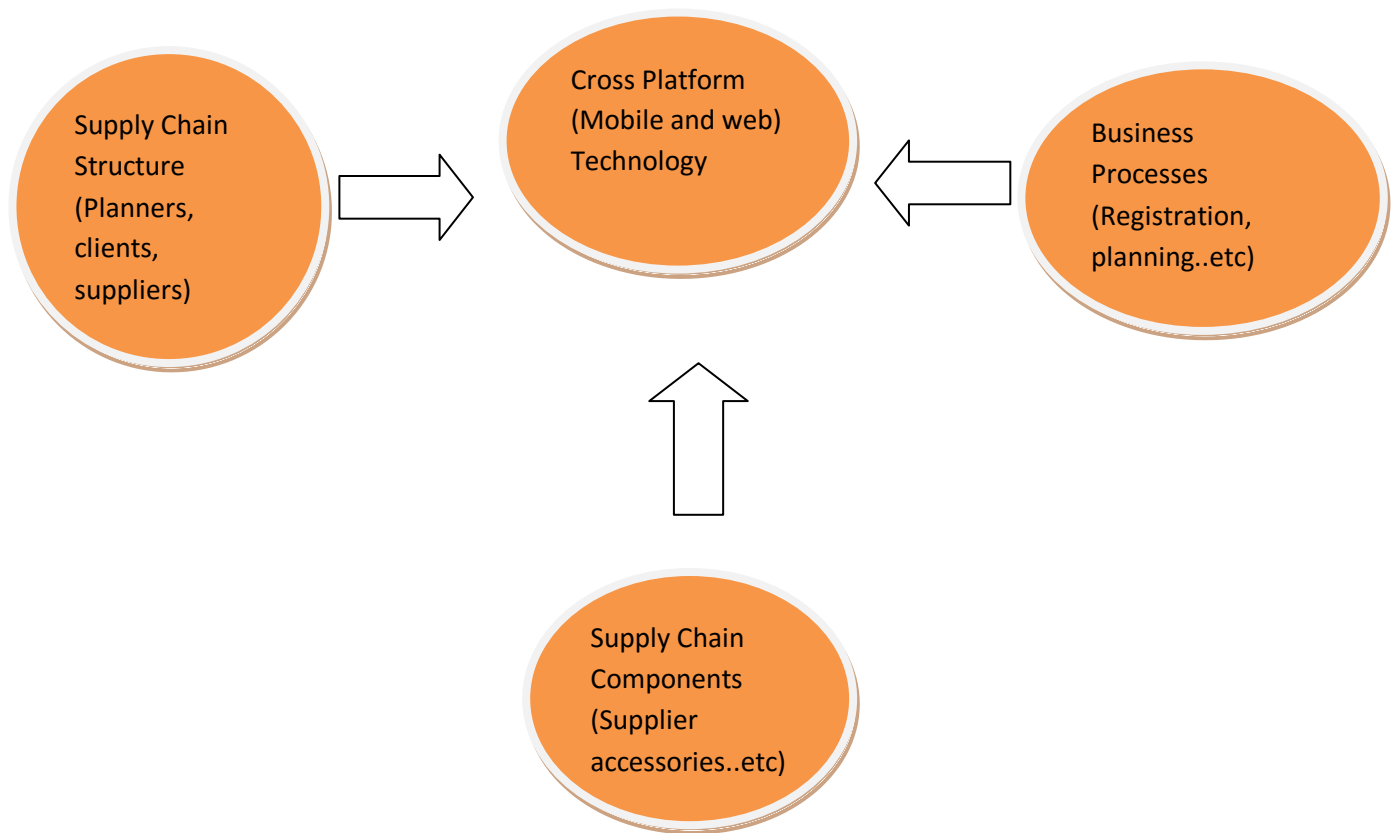
The supply chain business process in the framework is replaced by communication, which bridges the gaps among the stakeholders. There appears to be no need for business processes, as long as communication is effective among the suppliers, planners and clients, supply chain efficiency is of no worry. The Proposition for this research was aimed at making supply chain easier by introducing web technologies in the supply chain function to serve as a buffer between the long process communication between clients and suppliers and between planners and clients & suppliers. The assumption was that this communication actually takes place among the stake holders and it is indeed a persistent problem to industry members.

During the data collection process, most interviewees confirmed that this back and forth communication among the three major stake holders in event firms exists. Miscommunication disrupts the entire process and sometimes ruins relationships among the stakeholders. When asked what should be about this problem, most respondents gave the same response; a platform where clients can find all the needed accessories from suppliers so that they don't have to place a lot of phone calls.

The initial propositional framework was to bring in web applications that would implement those features so when the clients attested to that, the proposition was endorsed. However, research also revealed that Ghanaians are more inclined to mobile applications, so the idea of making this a web application may not work well. A cross platform application that can be used on both websites and mobile phones may serve better. What is important is the service,

unlike the current SCM that is solely dependent on communication, this platform serves to allow clients reduce the communication by doing registration and package selection over the platform.

Figure 4.7 Proposed Supply chain framework technology



4.12 Proposed Software Development Procedure and User requirements

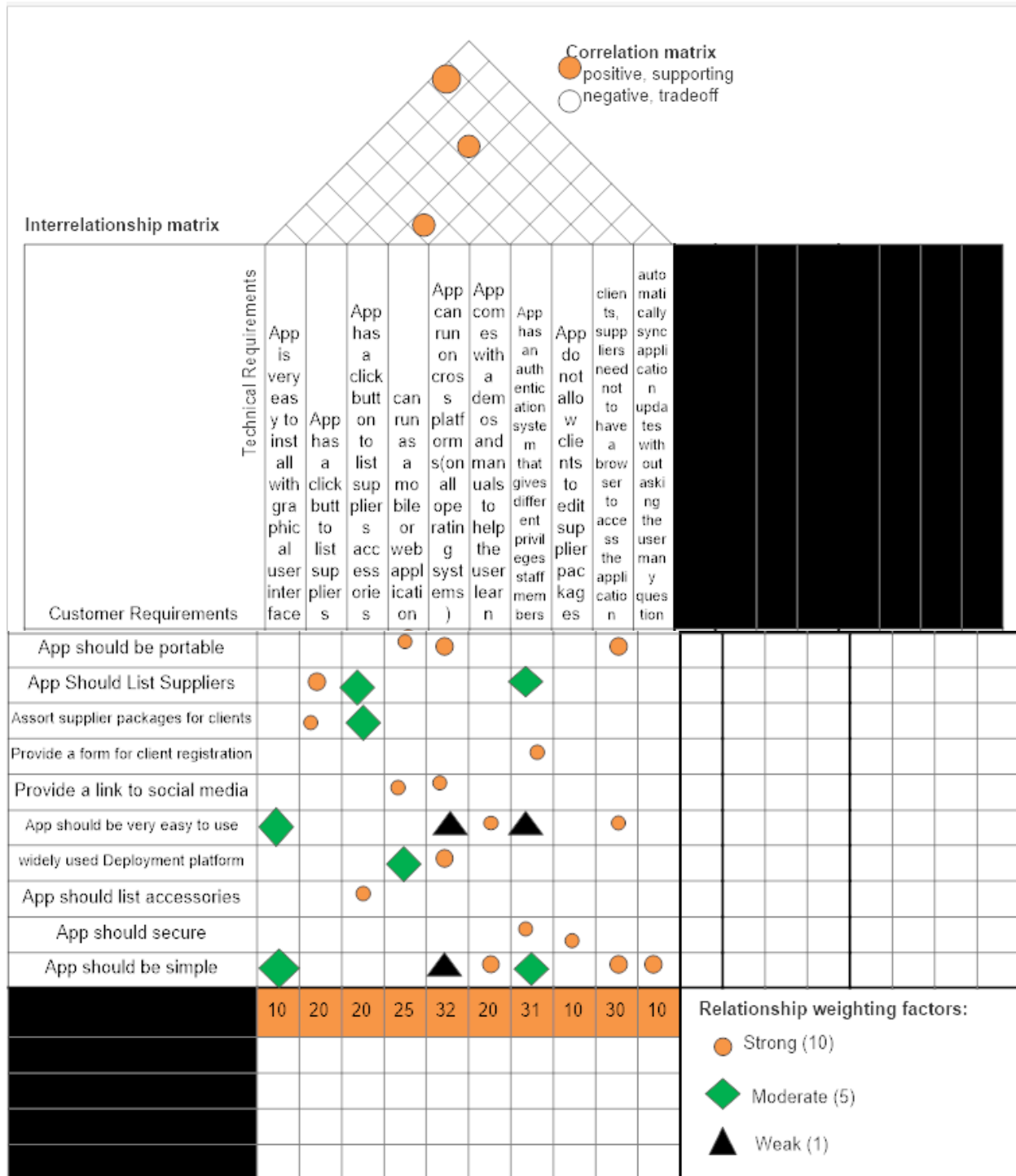
After long conversations with respondents, a common suggestion that came across was the development of an application that can aid supply chain by bringing suppliers, clients and planners to the same level. Below is a requirement analysis for the proposed software.

Table 4.3 Requirement analysis

| User Requirements | Technical/Nonfunctional Requirements |
|--|--|
| The app should be portable(can easily be used on any device) | App is very easy to install |
| The app should secure | App has a click button to list suppliers |
| The app Should provide a List Suppliers | App has a click button to list suppliers accessories |
| Clients should be able to register their event | software can run as a mobile or web application |
| App should provide a list accessories | App can run on cross platforms(on all operating systems) |
| Assort supplier packages for clients | App comes with a demos and manuals to help the user learn |
| The app Should be deployed on a widely used deployment platform | App has an authentication system that gives different privileges staff members |
| The app should be simple | App do not allow clients to edit supplier packages |
| The app is very easy to use | clients, suppliers need not to have a browser to access the application |
| Clients, suppliers and planners should easily navigate to social media from the app | Developers automatically syncs application updates without asking the user many technical question |

These Requirements were analyzed using the “House of Quality (HOQ)” product development quality analysis tool. This was done based on the client’s emphasis on each requirement that stems from the word analysis done in max QDA qualitative data analysis software. Figure 4.7 below shows the HOQ, a structured approach for integrating user requirements into a product. It shows the weighted rates of importance that comes with the technical requirements weighed against user requirements. The figure also shows the correlation between the technical requirements for the software.

Figure 4.8 House of Quality



Note that the ratings are not average weighted; they are raw scores of correlation between technical requirements and customer requirements.

Table 4.4 below shows a summary of Technical requirements in order of their importance as weighed by users. This serves as a guide for features needed for the supply chain management app proposed in this research.

Table 4.4 Technical Requirements with their user importance rating

| Technical requirement | Importance Rating |
|--|-------------------|
| App can run on cross platforms(on all operating systems) | 32 |
| App has an authentication system that gives different privileges staff members | 31 |
| clients, suppliers need not to have a browser to access the application | 30 |
| software can run as a mobile or web application | 25 |
| App has a click button to list suppliers | 20 |
| App has a click button to list suppliers accessories | 20 |
| App comes with a demos and manuals to help the user learn | 20 |
| Developers automatically syncs application updates without asking the user many technical question | 10 |
| App do not allow clients to edit supplier packages | 10 |

The requirement with the highest rating is the cross platform requirement. This is so because the industry depends on web and mobile devices. The easier it is for the application to be run on any platform, the better its assimilation in the Ghanaian event industry.

The cross platform application may be a solution to curb complex communication in the industry. However, the application may not easily penetrate the market due to some of the solution that are already out there, these include; enterprise resource planning (ERP) and MRP. Below is a distinction between ERP, material requirement planning (MRP) and the cross platform event management tool (CPEMT) suggested in this paper.

Table 4.5 Distinction Between MRP, ERP & CPEMT

| ERP | MRP | CPEMT |
|---|--|--|
| <p>This is a category of business management software that an organization uses to collect, store, manage and interpret data from many business activities including product planning, purchasing and manufacturing. This is most applicable in the manufacturing industry.</p> | <p>This is a production planning and inventory control system. It integrates data from production schedules with that from the inventory and the bill of materials (MOB) to calculate purchasing and shipping schedules for the parts or components required to build a product. This is also most suited in the manufacturing industry.</p> | <p>This is a software that can work on different platforms. It can be a web application and a mobile application. The major different is that this application is for communication among different stakeholders in the industry. The other tools focus on material flow; this app is for arrangement of material and information flow among stakeholders.</p> |

CHAPTER 5

SUMMARY, CONCLUSION, & RECOMMENDATION

5.1 Summary

The main aim of this research was to investigate the assimilation and use of web technologies in the supply chain the Ghanaian event planning industry. It was aimed at understanding the existing supply chain framework and what role web technology play in the supply chain. The research was also set to explore the significance of web technologies in the supply chain function of the event firms supply chain. Using a qualitative research method to understand the construct, a sample of three (3) major event planning firms were sampled using purposive sampling. Chief Executive officers of these companies were interviewed on the topic.

It was discovered that event planning firms have a long communication process among the major stake holders. It was evident from the interviews that the Ghanaian community use mobile applications as opposed to web applications for their communication. Technology assimilation levels among the three firms ranged from 60% lowest and 70% highest. Figure 4.5 shows that instagram and facebook are the most utilized with a significance of 20%. Phone calls with 19%, emails with 18%, whatsapp with 17% and websites with 6%.

5.2 Conclusions

Conclusions of this research are largely based on the research questions and objectives. Going back to the literature, Cooper, Lambert and Pagh proposed a framework for understanding SCM. This framework viewed supply chain through a general lens; it encompasses three closely related elements: structure if the supply chain, the supply chain business process and the supply chain management components, they proposed that these are these three elements captures the

essence of supply chain management. Implementation of SCM involves identifying supply chain management members, the processes needed to link them to and the type integration that applies to each process link (Iambart et al., 1998).

The business process of the framework in this context refers to the planning process, the components refer to the accessories involved in the supply chain and finally the structure is how the three major stakeholders organize the processes and communication among them. An improvement on this framework was made in the proposition that this research presents, the proposed framework in figure 1.3 shows how the business processes, supply chain network and supply chain are connected by a single cross platform technology that helps reduce communication among the supply chain stakeholders.

With this in mind, below are the major conclusions resulting from the research;

- 1) There exists an inefficient supply chain framework in the industry due to long communication between clients and suppliers, suppliers and planners and planners and clients.
- 2) There is a positive relationship between technology used and the supply chain efficiency of event firms.
- 3) The Ghanaian events industry utilizes mobile applications more than web applications. They use cross platform applications such as Facebook and Instagram which can be used as web applications, however, they choose to use them as mobile applications because of its convenience and simplicity.
- 4) The supply chain of the event planning industry can be improved by using a series of cross platform applications that can help reduce the communication among the

stakeholders. Like industry members pointed out, this cross platform should have a list of vendors, their details and their accessories. Accessories could have a budget attached to it so that clients would be able to finish their registration from the platform and communicate to vendors from there.

- 5) Looking at the number of technologies used in the event planning industry (a sample of 6), technology assimilation is high and Social media is the main technology stream significantly used in the industry.

5.3 Recommendations

There is little literature done on this topic in the industry. The fact that the communication process is still very long and tiresome in the industry signals that there is still more to be done on how to improve the supply chain efficiency of the event planning industry. Since the Ghanaian community is more conversant with mobile applications, further research into how cross platform applications and mobile technologies can affect supply chain of event firms would be of great value to the industry. Moreover, research into how the industry can utilize other technology systems that can help uncover more on the topic.

5.4 Limitations

The major limitation of this research is that there is little literature on the topic. There is evidently to none of papers written to address this construct in the Ghanaian industry setting. This made it very difficult to discuss relevant literature that directly relates to the Ghanaian setting. Another setback was that the industry members were too reluctant participate in the research; the conviction pertaining the importance of the research was not well reached by industry members. This requires interviewing people who are the main implementers of the

supply chain framework. These people just happen to be the busiest in the whole industry, so this research might need more time than necessary in order to manage reaching out a wide range of respondents.

APPENDICES

Appendix 1: QUESTIONNAIRE FOR EVENT FIRMS CHIEF EXECUTIVE OFFICERS

Event Industry

1. How long has your company been in operation? Please write the number of years in the space provided below

2. Who are the main stakeholders in your industry

3. Who are your customers? Tick only if the answer is applicable
 - ☐ Governments
 - ☐ Corporate businesses
 - ☐ Nongovernmental organizations
 - ☐ Schools
 - ☐ Churches
 - ☐ Individuals
 - ☐ Other
4. How often do you plan events?
 - ☐ Very often
 - ☐ Often
 - ☐ Once in a while
5. How would you rate competition in your industry? Tick the applicable answer.
 - (a) Low
 - (b) Moderate
 - (c) High
 - (d) Very High
 - (e) other

SUPPLY CHAIN

1. Do you keep any inventory in the firm?
 YES
 Why.....

NO

2. How is the framework of your supply chain? In the space below, write a short explanation describing your supply chain framework

.....

.....

.....

.....

.....

3. How do you get event planning accessories (music, venues, lighting, décor materials etc)? Please tick the applicable answers.

- (a) We own all needed event accessories
- (b) We source from vendors
- (c) We source from other event firms
- (d) Clients buy their accessories
- (e) other

4. With the rising competition in customer service, how do you manage your supply chain to keep up with the competition?

.....

.....

.....

.....

COMMUNICATION AND WEB TECHNOLOGIES

- 1 To what extent do you communicate with your customers and suppliers? Please tick the applicable answer.

- (a) Not often
- (b) Often
- (c) Very often
- (d) Every day

- 2 Do you use any technology in your Supply Chain Management? Please tick the applicable answer.
 - (a) YES
 - (b) NO

- 3 How do you communicate with your clients and suppliers
 - (a) Texting
 - (b) Emails
 - (c) Phone calls
 - (d) One on one conversations

- 4 What technologies do you use for Supply Chain Management?
 - (a) Web site
 - (b) Facebook
 - (c) WhatsApp
 - (d) Emails
 - (e) Phone calls
 - (f) Instagram
 - (g) other

- 5 Rank the above technologies in order of their importance in your communication. Starting with the most important.

- 6 On a scale of hundred, how do you rank the importance of each technology
 - (a) Web site.....
 - (b) Facebook.....
 - (c) WhatsApp.....
 - (d) Emails.....
 - (e) Phone calls.....
 - (f) Instagram

- 7 How difficult is it to use current technologies?
 - (a) Very complicated
 - (b) Difficult
 - (c) Moderate
 - (d) Easy
 - (e) Very easy

- 8 How sufficient are the current technologies in SCM communication
- (a) Very sufficient
 - (b) Sufficient
 - (c) Manageable
 - (d) Insufficient
 - (e) Very insufficient
- 9 On a scale of 10, how quick does the organization adapt to new technologies?

- 10 Does this adaptation level have an effect on the SCM and performance
- (1) YES
 - (2) NO
- 11 How often do you change these technological tools?
- (a) Very often
 - (b) Often
 - (c) Not often
 - (d) We have no control over change in technology
 - (e) Other.....
- 12 What usually informs your decision to select the technology you use?
- (a) Complexity
 - (b) Cost
 - (c) Clients' technology preference
 - (d) Supplier technology preference
 - (e) Other.....
- 13 Do you think the current technologies affect supply chain
- (1) YES
 - (2) NO

14 How does technology affect supply chain? Positive or negative? Tick one and explain

(a) Positive

Why.....

(b) Negative

Why.....

15 Do you think there is a relationship between web technology assimilation and supply chain efficiency?

YES

Why.....

NO

Why.....

16 In your own opinion, how are they related and do you think Web technologies can help make your SCM better?

.....

17 If there was a technology that would make life easier for planners, clients and suppliers, how would you envision it?

.....

.....
.....
18 What are the major challenges you face with technology?

.....
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Appendix 2: TRANSCRIBED INTERVIEWS WITH CHIEF EXECUTIVE OFFICERS

Moderator: How is the framework of your supply chain?

Rachelle Events: Clients call or send an email, so send us text messages or follow us on instagram, we ask for type of event, the date,venue they want among other details of the event. We usually look at the budget and suggest venues. We connect them to the vendors on our list based on their budget. Finishing and final touches are done three months before the event because clients change their minds at any time. I have vendors that I work with but I out source photographers, cake makers, videography, invitation cards makers, DJs under the production team. I usually call them to book when there is an event because they work for other event companies. Some clients prefer to speak to suppliers and others get connected through us. What we do is pre planning for the event; we coordinate during the event and follow up after the event.

Prime Shades Events: The clients call or email us to tell us about the event, we find out the type of event they want and their budget. I have most of the accessories use in décor. I have different entities that do different event preparation activities. Invitation is done by an invitation vendor, then printing, stationary, sound by PS system, stage people is another agency, jewelry, wedding gown vendors, church, chairs etc, all these people are part of my vendor list who are now a net work. When it comes to technology, there is need to be well inclined to get work done fast.

Purple Twirl Events: Clients call us on phone or send an email. They tell us about the event then we refer them to different vendors who provide accessories based on the budget and the type of event. Most of the clients come through referrals and international clients are the ones we refer to vendors.

Moderator: How do you get event planning accessories (music, venues, lighting, décor materials etc)

Rachelle Events: I don't have all the accessories; however, I outsource what I don't have from a network of vendors.

Prime Shades Events: I have different entities that do different event preparation activities. Invitation is done by an invitation vendor, then printing, stationary, sound PS system, stage people is another agency, jewelry, wedding gown vendors, church, chairs and so on. All I do is call them and book.

Purple Twirl Events: I don't have all accessories. I have a list of vendors I work with. Different people provide different event accessories; we just book them or connect the client to them.

Moderator: How do you connect with your Clients and Suppliers?

Rachelle Events: Communication is through social media such as whatsapp groups, facebook, instagram and the website. Mostly used mode of communication is social media, we use the web site too and renew it on a yearly basis, we update after three months. Our website is linked to our social media sites. The website is mostly used by international clients. 88% of Ghanaians use instagram.

Prime Shades Events: Mode of communication is usually via emails, we walk to them and place phone calls. Clients get to prime shade through emails, calls, references and information for the planning. Emails are used as an anchor guide.

Purple Twirl Events: We usually communicate to suppliers through whatsapp, instagram, phone calls, emails and some go to our web site to send us messages. Clients usually get our

contacts from instagram, facebook or our web site and call us. During the planning process, we usually use emails.

Moderator: With the rising competition in customer service, how do you manage your supply chain to keep up with the competition? What is that trick that keeps saving your clients and suppliers?

Rachelle Events: Clients love to work with people who do exactly what they want within their budgets. We do everything within our power to make sure every cent from the client counts

Prime Shades Events: We believe our work must speak for us, all we do is work and that attract clients.

Purple Twirl Events: Clients see what we do on facebook and on our web site, we also make sure we have a good relationship with all the stake holders and that brings clients, who are mostly referred.

Moderator: To what extent do you communicate with your customers and suppliers?

Rachelle Events: We communicate with clients from the beginning of the event to the end and even after the event has taken place. We have a mutual relationship with our vendors, we don't only communicate when we need them, we refer clients to them as well as book them.

Prime Shades Events: We communicate to our clients at all times and to our vendors, we are a network now.

Purple Twirl Events: We communicate to clients mostly; phone calls and social media make it possible. Our vendors are part of us now, we communicate to them on a daily basis.

Moderator: Do you use any technology in your SCM?

Rachelle Events: Yes

Prime Shades Events: Yes

Purple Twirl Events: Yes

Moderator: What technologies do you use for SCM?

Rachelle Events: social media (facebook, instagram, whatsapp) and our website

Prime Shades Events: social media (facebook, instagram, whatsapp) and our website

Purple Twirl Events: social media (facebook, instagram, whatsapp) and our website

Moderator: How do you find the current SCM technologies?

Rachelle Events: Current technologies are not enough, as the technology advances, we also try to adapt new technologies, for instance, we now don't just use mere cameras, we have the drones and are trying to acquire some radio frequency communication technologies.

Prime Shades Events: Technology has been the perfect tool I ever had in my work. My website is helpful, it is connected to my social media platforms and international clients utilize these platforms we also use technology for banking. Clients pay us online and we pay vendors online.

Purple Twirl Events: We use the site, mail and social media especially whatsapp. We once tried a wedding app (planning port) it didn't work so we are developing our own system. The software

was too complex, was a lot to learn in a short time. It is still not suited to Ghana clients. So far the current technologies are fine but there is more technology can do for us.

Moderator: On a scale of 10, how quick does the organization adapt to new technologies?

Rachelle Events: 7

Prime Shades Events: 7

Purple Twirl Events: 6

Moderator: Does this adaptation level have an effect on the SCM and performance?

Rachelle Events: Adptability and assimilation is at 70% because some employees are taught on the job, they come on the event day and when they miss an orientation, they don't get to learn. This affects our work because, if they have no idea of the technology, it affects our performance and the ourcome which also affect the clients.

Prime Shades Events: Assimilation level is 70% inside the firm. The more we rely on technology and utilize it, the better our supply chain.

Purple Twirl Events: Assimilation level is 60%, it has an effect on us because the more we are technologically inclined the better our supply chain.

Moderator: How often do you change these technological tools?

Rachelle Events: We change the technology based on how long we have used it. We usually go with what is available.

Prime Shades Events: We use all technologies at once, open one and continue to use all forms of technology at once. We move with technology and trends.

Purple Twirl Events: It depends on the technology that people are more conversant with. We often change the technology if clients and vendors cannot use it like the wedding app was not friendly for all

Moderator: What usually informs your decision to select the technology you use?

Rachelle Events: We move with the trends. Trends are what most people like and use at a point in time. We go with a technology that takes the crowd. Sometimes, the type of clients and vendors we communicate with determine the type of technology we use. Some prefer skype, others phone calls and others would text.

Prime Shades Events: We move with technology, we don't dispose off any technology; whatever technology is on the trend is what we use while we keep the old ones.

Purple Twirl Events: We follow the trends; we use the technology that is in fashion. We usually consider convenience (mobile) and simplicity.

Moderator: Do you think the current technologies are affecting the supply chain in any way?

Rachelle Events: Yes. Technology helps us cut the long communication short. The technologies we use definitely affect the supply chain, whether phone call or social media, how efficient your supply chain is also dependent on the technology you are using.

Prime Shades Events: Creating web presence is helpful. It creates the illusion that you are a big firm and makes vendors want to work with you. It helps us with references and detailed

information about the company and the planners. It gives confidence to the vendors and clients to work with.

Purple Twirl Events: Yes, we cannot do without technology, the more technology we use, the easier our work becomes.

Moderator: How does technology affect supply chain?

Rachelle Events: Clients who need their events planned use technology to reach us. In communicating to them we also use technologies such as social media and the web site. To connect to us and become part of our vendor list, suppliers reach us through our social media platforms. They communicate to us via email, facebook, whatsapp or instagram. We manage to plan the event from the beginning to the end by the aid of technology. For vendors to deliver, we use technology to communicate.

Prime Shades Events: Clients are able to see what we do on our web sites and decide to plan their events with us. Suppliers get to know about us on social media and decide to work with us. Technology makes our communication easier in supply chain.

Purple Twirl Events: Most of our international clients get to know us through instagram, our website or on facebook. We communicate with them on social media and phone calls. Technology helps our clients get access to our profile and see the work we do before they decide to work with us. Suppliers contact us using technologies especially instagram and our website. Technology plays an important role even in the process of planning an event.

Moderator: Do you think there a relationship between web technology assimilation and supply chain efficiency?

Rachelle Events: Yes

Prime Shades Events: Yes

Purple Twirl Events: Yes

Moderator: In your own opinion, how are they related and do you think Web technologies can help make your SCM better?

Rachelle Events: The more we are technologically inclined, the easier our work becomes. We are quick to adapt except those who only come on last minute and give us trouble teaching them.

Prime Shades Events: Some clients are not so quick to adapt to technology, but as a firm, I can say technology has been the perfect tool I ever had in my work.

Purple Twirl Events: I am not bad at personally, we are looking for more technology inclined solutions to make our easier even though some software are just too complex.

Moderator: If there was a technology that would make life easier for planners, clients and suppliers, how would you envision it?

Rachelle Events: If clients are able to book us and see our availability date on our websites, we will avoid it will eliminate the number of calls received to focus on the current event. If suppliers are all listed on the website, my clients will know the suppliers available and make an informed choice before they call, to eliminate earlier work such as finding the cake makers. They just call to confirm who they want to handle their events, this makes SCM more efficient

Prime Shades Events: A Platform where there is a variety of vendors of the same accessory so that clients can choose what they want would really help us reduce a lot of communications and unnecessary call.

Purple Twirl Events: If there was a technology that would make work easier, require every vendor detail in one place so that vendors load their accessories and details in one place so that I don't have to email them and they constantly update it. Clients see what they need and who they should work with. Clients go to the website so that they check the vendors who are selling within their budget.

Moderator: What are the major challenges you face with technology

Rachelle Events: We work with different people who have other jobs, either own or they work with other event companies, orienting these people on how to use some technology is not easy. Some do only appear on the final day of the event because that is the only time they have to appear, some clients too are not too well inclined to technology, so it is not easy to implement. We are expected to be inclined if we are to use technology to our advantage.

Prime Shades Events: Technology is always changing, so there is need to be well inclined to be able to utilize it. Clients like to compare, so they cannot be constrained to one technology you decide.

Purple Twirl Events: The software is sometimes too much; it is a lot to learn in a short time. Not all clients or vendors are inclined to technology; sometimes even getting emails from vendors is not easy. Technology is fast paced and we are slow to finding new ways of using technology. Sometimes it is not event technology but what slows down the communication or supply chain is attitude!

APPENDIX 3: LIST OF STAKE HOLDERS IN THE INDUSTRY

| Venture | Activities |
|--------------------------------------|---|
| Outside Catering | Supply of food away from the business premises. |
| Decorations | Provide floral arrangements and decorate event venues |
| Public Address | Provide entertainment in the form of music and equipment. |
| Cake Baking | Supply cakes, pastry and sweets for events. |
| Tents and Chairs Hire | Hire out tents and chairs which can be plain or dressed. |
| Events Ground | Let out venues for use both day and night functions. |
| Equipment / Drapery / Furniture Hire | Hire out catering equipment such as crockery, utensils, cutlery, food service equipment, plus hire of drapery for decorations, table linen and tables (round or rectangle). |
| Video / Photography | Shoot the event proceedings both still and motion. |
| Conference Organizers | Undertake to arrange, coordinate and plan seminars, meetings, workshops and all sizes of conferences. |
| Event Planning | Managing entire events from conception through to implementation and evaluation. It involves sourcing for vendors for each activity in the event. |
| Master of Ceremony | Conducts the proceedings of event. |
| Car Hire | Provision o transport services which may include limousines, buses, trucks and other fleet vehicles. |

APPENDIX 4: Technology Assimilation Levels (Scale: 1-100)

| | Rachelle Events | Prime Shades | Purple Events | Twirl |
|-----------------------|-----------------|--------------|------------------|-------|
| Assimilation level | 70 | 70 | 60 | |

APPENDIX 5: Technology Preference (Scale: 1- 100)

Table 5.1 Rachelle Events

| Technology/application | Significance(1-100) |
|------------------------|---------------------|
| Facebook | 20 |
| Instagram | 23 |
| Whatsapp | 18 |
| Emails | 15 |
| Phone Calls | 16 |
| Website | 8 |

5.2 Prime Shades Events

| Technology/application | Significance(1-100) |
|------------------------|---------------------|
| Facebook | 19 |
| Instagram | 24 |
| Whatsapp | 15 |
| Emails | 19 |
| Phone Calls | 17 |
| Website | 6 |

Table 5.3 Purple Twirl Events

| Technology/application | Significance(1-100) |
|-------------------------------|----------------------------|
| Facebook | 21 |
| Instagram | 13 |
| Whatsapp | 19 |
| Emails | 20 |
| Phone Calls | 22 |
| Website | 5 |

APPENDIX 6: Technology Type Significance across Firms (Resultant assimilation table from individual tables)

| Technology/application | Significance(1-100) |
|------------------------|---------------------|
| Facebook | 20 |
| Instagram | 20 |
| Whatsapp | 17 |
| Emails | 18 |
| Phone Calls | 19 |
| Website | 6 |

APPENDIX 7: List of Respondents interviewed

Sheila Enuson

Chief Executive Officer: Prime Shades Events

Adwoa Gyapomaa Afriyie Bonsu

Chief Executive Officer: Rachelle Events

Abokuma Ellis

Chief Executive Officer: Purple Twirl

Events

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