Abstract

Organizations are currently looking to adopt Big Data technology but are uncertain of the benefits it may bring to the organization and concerned with the implementation costs. This paper presents the results of testing a Strategic Framework that aims to align the Business objectives with Big Data projects. The framework is expected to help on the understanding of the value that a proposed Big Data project may bring to the Organization and reduce implementation costs. The framework was tested on a broadcasting TV station in Nigeria. The conclusions of this phase of the research are: the identification of strategic goals before implementation offered a clearer view of the benefits the proposed Big Data project can bring to the organization and helped to focus the project on answering those questions that can bring the best value. Time and implementation costs, were also reduced.

Keywords


Introduction

The inherent nature of Organizations is to find new ways to stay ahead of the competition, and for this reason, they constantly look at disruptive technologies that can help them to maintain their competitive advantage. A problem with most of the disruptive technologies is that they usually become expensive fads with hidden risks attached to them. Thus organizations seek to have more certainties and fewer risks to be able to adopt them. Big Data is one of such innovations fads within industry and academia. Today, many organizations are seen to rush into implementing Big Data Projects, mostly because everybody else is doing it, resulting in disappointment and creating more caution from other potential adopters. Despite these facts, Big Data continues to raise interest on most organizations. The focus of practitioners and academia for Big Data over the last years, however, has been on the technological side with little interest on the strategy. Most of the research and industry questions are about how should Big Data be implemented with fewer questions about why it should be implemented, and what are the real benefits it may bring to the organization. This paper continues the standpoint of our initial proposition (Lakoju and Serrano, 2016) in which we argue that the focus should be shifted from going straight into implementing Big Data projects to first implementing a Big Data Strategy. We argue that the first and most important part of a Big Data project is to find the right questions that the project aims to answer, and these comes from strategic thinking in collaboration with technological savviness. Literature indicates that numerous companies that have rushed into implementing Big Data projects have failed, widely attributed to the lack of a proper implementation framework (Saltz and Shamshurin 2015). Finding the right questions will also help the organization to identify the potential value of these technologies and to justify investment in these areas. In our previous publication (Lakoju and Serrano, 2016) we developed a conceptual framework (namely SAVI-BIGD) that aims to address these issues. In short, the proposed framework is grounded on the Co-evolutionary IS alignment framework by Benbya and McKelvey (2006). To accommodate for the complex nature of Big Data, the researchers incorporate the concepts of Digital Business Strategy (DBS) with Alignment theories.

In order to provide evidence about the effectiveness and any shortcomings of the aforementioned framework, this papers tells the story of the implementation of the SAVI-BIGD framework in a case study,
Following a Design Science Research (DSR) Methodology. To this end this paper is organized as follows: The next section aims to provide a succinct rationale for the proposed framework with a brief explanation of each of the phases. A complete literature for the justification of the framework can be found on (Lakoju and Serrano, 2016). The “Conceptual Proposition” section describes the rationale of the models used to identify the strategic goals and questions needed in this phase of our proposed framework. Subsequently the “Methodology” section describes the overarching method followed in this research, namely Design Science. The Data Analysis and Results section presents the results obtained from the interviews and focus groups, and finally the Discussion and Conclusion section summarizes our finding at this point of the research cycle.

The SAVI-BIGD Framework: Rationale & Literature Background

Literature suggests that Organizations have a growing appetite for developing Big data projects, although, due to the complex nature of Big Data the perceived value and costs are not clear to most of them (Brinkhues et al. 2015). It is also observed that a large majority of literature are focused on Big Data technologies, Big Data extracted information, data management, data mining etc. For example, Brinkhues et al. (2015) argue that the Information Management Capability (IMC) can negatively impact cost expectation but also positively impact value expectation. Kung et al. (2015) proposed that IT Capability, Big Data competence, data management and Organizational capability are interconnected and reciprocally form a network of important factors for concrete decision quality which also affects performance. Their proposed model measures Big Data competence by integrating data life cycle concept and Big Data’s 3Vs characteristics. Gao et al. (2015) also propose a process model with success factors, which they grouped according to each phase or their proposed Big Data implementation process model. Additionally, two other Big Data implementation methodologies where proposed by Dutta and Bose (2015) and Huang et al. (2015) respectively. Both methodologies are very similar in process steps, the only difference is that the Dutta and Bose (2015) breakdown the implementation steps in a little more detail.

Although all the above schools of thought contribute immensely to the body of literature around Big Data, this research takes an alternative stand point by focusing on the strategic side of Big Data which comes before actual implementation, by aligning the Business Strategy of the Organization with the Big Data project. Literature indicates that there is a good number of research that agrees not only on the importance but also on the benefits of aligning the business strategy with the IS strategy of an Organization (Benbya and McKelvey 2006; Bharadwaj, El Sawy, Pavlou, Venkatraman, et al. 2013; Grover and Kohli 2013; Mithas et al. 2013; Mithas and Lucas 2010; Nylen and Holmstrom 2015; Oestreicher-singer and Zalmanson 2013).

Based on Big Data implementation frameworks, models and adopting an IT/Business Alignment paradigm, the authors of this paper proposed the SAVI-BIGD Strategy Framework, containing five steps: Strategic Vision, Implementation Road Map for BIGD, Generation of Strategic Big Data Goals, Determination of Data Sources and Big Data Implementation Plan (Lakoju and Serrano 2016). These are briefly explained next. A complete literature for the justification of the framework can be found on (Lakoju and Serrano, 2016).

**Strategic Vision Phase:** involves the process of carefully and systematically aligning the business and the IS strategy by way of strategic planning. The management staff that will be involved in the strategic planning are identified during this phase. Potential areas of analysis for the project will be decided on which are very crucial in assisting the direction in which the business problems should be addressed in a Big Data project and also scaling the project and for the subsequent phases of Strategic framework (Lakoju and Serrano 2016). This Big Data strategy framework was grounded by previous work done in the area of IS alignment by (Benbya and McKelvey 2006). The Benbya & McKelvey framework tackles alignment in a continuous Co-evolutionary pattern from both a bottom-up and a top-down approach, it also suggests that an Organization can be grouped into three levels: Strategic, Operational and Individual levels (Benbya and McKelvey 2006).

**The Implementation Road Map for BIGD Phase:** In this phase the Organizational and IS structure are aligned, the actor’s interaction with IS strategy domains are also identified and aligned. Based on the
area for analysis or business problem, a well suited Big Data implementation methodology is selected from the current state-of-the-art.

**Generation of Strategic Big BIGD Goals Phase:** This phase is also focused on aligning the Organizational and IS structure and also synergizing the actor’s interactions with IS strategy domains. This is achieved by first gaining an understanding of the business problems while evaluating the current level of IT maturity within the organization, through a qualitative study with stakeholders. The business problem is then narrowed during a focus group interview comprising cross functional teams. The instrument used is adapted from DBS themes.

**Determination of Data Sources Phase:** This phase focuses on the alignment between users’ needs and IS infrastructure. There is a direct link between the identified business problems & questions and the Data sources that will be required for the project, more precisely, for the strategic questions that were raised in previous phases. Within this phase, various data gathering options will also be evaluated and identified.

**Big Data Implementation Plan Phase:** This is the last phase within the project cycle. This alignment process factors in the users' needs as well as the IS infrastructure also. A tailored version of the Big Data implementation methodology is generated specifically for the Organization. (Lakoju and Serrano 2016).

The next step of our research methodology involves the actual testing of the framework by way of implementation of the SAVI-BIGD framework in a case study. The selected case study is a media company located in Nigeria called Confluence Cable Network (CCN). CCN is a group of companies which has within its holding a TV station called Confluence TV (CTV) and also a Radio Station called Grace FM (GFM 95.5). The following section describes the methods, models and techniques used when applying the SAVI-BIGD framework in CCN. Note that the focus is placed on the Phase 3 “Generation of Strategic BIGD Goals”, which is the phase were the organization establishes the strategic questions (goals) that the Big Data Project aims to accomplish. The rationale behind this, derives from literature which states that the start point for implementing a Big Data project is the definition of the business problem (Dutta and Bose 2015; Huang et al. 2015). The Phase 1 “Strategic Vision” and Phase 2 “Implementation Road Map for BIGD” were not discussed in this paper.

**Generation of Strategic Big Data Goals: Theoretical Rationale**

Generating strategic Big Data goals are a key part of the project, it is essential to have a clear set of questions or well-articulated business challenges that will drive the Big Data project (Dutta and Bose 2015; Huang et al. 2015). For this reason, the researchers suggest that the first exercise will be to identify level of IT Maturity within the Organization. This helps in creating an awareness of the true state of alignment within the organization as well as creating a new mindset of synergy between the business and IT domains that will help in articulating the business challenges of the organization. The next exercise will be to strategically revalidate the business challenges under the guidance of a Digital Business Strategy themes. Figure 1 represents in a diagram the conceptual proposition for this phase.
This phase was crafted with the combination of two theoretical models, the first instrument was adapted from Luftman (2000) maturity assessment model, which was tailored to measure the level of IT maturity in the organization while also investigating the business challenges. The second theoretical contribution was taken from (Bharadwaj, El Sawy, Pavlou, Venkatraman, et al. 2013), they provided four themes that can guide a Digital Business Strategy. This was adapted to help in strategically streamlining the business challenges while appreciating the fusion of technology with the business. The entire process of Generating Strategic Big Data Goals follows a qualitative process, which is carried out through a systematic research process and was properly discussed in the methodology section.

Implementing this phase will first require one-to-one interviews with key stakeholders i.e. CEO and Heads of Department (HOD). The stakeholders’ list was previously generated in the first Phase of the SAVI_BIGD Strategy framework, which includes: CEO, HOD IT, HOD Radio/Programs, Acting HOD Radio/Programs, HOD 1449 Production (Record label), HOD HR, HOD Health & Safety, HOD Restaurant, HOD News (TV& Radio), HOD Admin, HOD Accounts. The instrument used for the one-to-one interviews were adapted from Luftman (2000). Luftman (2000) put forward Six IT Business Alignment Maturity criteria groups: Competency/ Value Measurement, Communications, Governance, Partnership, Scope & Architecture and Skills. Each and every one of the criteria can be measure by 5 levels of alignment maturity: **Level 1 – Initial/ Ad Hoc Process:** This is the lowest alignment level; it indicates that business and IT are not aligned. **Level 2 – Committed Process:** This level indicates that the Organization has some sort of commitment towards promoting IT-business alignment. **Level 3 – Established Focused Process:** This level indicates that the Organization has vested alignment processes in place, which are in-line with the business objectives. **Level 4 – Improved/ Managed Process:** This indicates a much stronger alignment level, which appreciates IT as a source of value creation for the Organization. **Level 5 – Optimized Process:** This level of alignment shows a well-established, fully integrated and flexible maturity level between business and IT.

The ranking serves as a guide in assessing the current level of IS maturity. It helps in reflecting the expected interplay that should help in an effective synergy between the IS and business domains, and also helps in articulating the business challenges of the organization. The next step is to conduct focus group interviews, and the instrument that guides this process is adapted from (Bharadwaj, El Sawy, Pavlou, Venkatraman, et al. 2013). They put forward four themes that guide a Digital Business Strategy: The scope of digital business strategy, The scale of digital business strategy, The speed of digital business strategy, and The sources of business value creation and capture in digital business strategy. Additionally, they state that these themes that serve as a framework will help in generating insights. They go a step further to highlight questions that should be asked within each theme (Bharadwaj, El Sawy, Pavlou, Venkatraman, et al. 2013). The results one-to-one interviews and the focus group interview are discussed in the Data analysis and results section which is then followed by a discussion section then follows this.
Framework for Aligning Big-Data Strategy & Organizational Goals

Methodology

Design Science Research (DSR) methodology was selected as a suitable method for this study. DSR allows for IS research to be approached in a continuous iterative design of cycles which enables problem solving (Gregor and Hevner 2013; Hevner et al. 2004; Vaishnavi and Kuechler 2004). Even so Hevner et al. (2004) stated that DSR allows for an effective improvement on both the resulting artifact and the activities within the cycles in subsequent iterations. Vaishnavi and Kuechler (2004) coined the process of DSR into a five step process: Awareness of problem, suggestion, development, Evaluation and conclusion. The first Iteration of the research followed the DSR research process, it was predominantly concentrated on document sampling with a combination of both literature and initial interviews with stakeholders in the case study. The aim was to gather empirical findings and also to identify gaps on the proposed framework, which helped in the development of the SAVI-BIGD strategy framework as it is now. The result from Iteration 1 was the SAVI-BIGD Strategy Framework, validation of the framework was done by a data scientist. The findings in Iteration one has been published in Lakoju and Serrano (2016). The next step is Iteration 2, which is the center of this paper, and the content of the following sections.

Applying Design Science Research Methodology in this Study: Iteration 2

The second Iteration of this research was focused on the implementation of the SAVI-BIGD Strategy Framework at a Media company in Nigeria. The company (CCN), as earlier mentioned has both a TV station and Radio station. The license of the TV station allows for a state wide, while the license of the radio station allows for a coverage radius of six states in Nigeria. As part of the key deliverables in phase one of the SAVI-BIGD Framework, the CTV was selected as the first area to focus on for the Big Data project. This paper reports specifically on the activities and results in this third phase of the implementation. This phase involves the Generation of Strategic Big Data Goals. This process involved the collection of qualitative data from one-to-one interviews and also focus group interview. A total of 23 respondents were interviewed, 12 in the one-to-one interviews and 11 in the focus group with an average of an hour for each interview. The interviews were recorded and then transcribed. Nvivo Qualitative analysis software was used to analyze the data. The research took a deductive approach because instruments used to collect data were guided by theory, however the researcher ensured flexibility in the research to accommodate emerging themes. Therefore, the data was coded using thematic analysis were initial and emerging themes were generated in the analysis. The Data analysis and results section reports on this.

Data Analysis and Results

This section first provides the results of both the one-to-one interviews and the focus group interview at CTV. The method of analysis followed the principle of thematic analysis as indicated in the methodology section. The analysis was explored and reported in two levels. To achieve these levels of interconnected analysis, the author conducted one to one interviews and focus group interviews with heads of various departments including the MD/CEO. The first level of analysis, which covered the one-to-one interview, focuses on answering the first research question, which was measuring the level of IT, maturity within the Organization while also articulating business challenges. (Luftman 2000) IT maturity model guided the design of data collection protocols. The second level of analysis addresses the 2nd research question, which was to investigate if a digital business strategy can be instrumental in articulating business challenges. (Lufman 2000) IT maturity model guided the design of data collection protocols. The second level of analysis addresses the 2nd research question, which was to investigate if a digital business strategy can be instrumental in articulating business challenges. It was focused on the Confluence TV station. The design of the data collection protocols used was guided by (Bharadwaj, El Sawy, Pavlou, and Venkatraman 2013) Themes of a Digital Business Strategy.

Results of the one-to-one Interviews

A total of 23 respondents were interviewed, 12 in the one-to-one interviews and 11 in the focus group.

<table>
<thead>
<tr>
<th>Phase One</th>
<th>Phase Two:</th>
<th>Phase Three: (19 Candidate Themes)</th>
<th>Phase Four: (Main Themes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>68 codes</td>
<td>66 codes</td>
<td>Financial Challenge, IT Challenge and Limitations, Governance issues, Marketing issues</td>
<td>Business Challenges</td>
</tr>
</tbody>
</table>
Framework for Aligning Big-Data Strategy & Organizational Goals

**Table 1. Themes from the One-to-One Interviews**

<table>
<thead>
<tr>
<th>Phase One: 23 Codes Emerged</th>
<th>Phase Two: 23 Codes Emerged</th>
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<tbody>
<tr>
<td>Phase Three: (14 Candidate Themes)</td>
<td>Phase Four – Main Themes</td>
</tr>
<tr>
<td>Financial Challenge, IT Challenge and Limitations, Human Resources, Marketing issues</td>
<td>Business challenges</td>
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<tr>
<td>Scale, Finance, Social Media</td>
<td>Scope</td>
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<tr>
<td>Source of Value Creation &amp; Capture, Feedback Channels, Information Validation, Popular Programs</td>
<td>Source of Value Creation &amp; Capture</td>
</tr>
<tr>
<td>Speed, Program creation</td>
<td>Speed</td>
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**First Level Analysis – Applying the Strategic Alignment Maturity Assessment Framework**

This section explores the analysis of the one-to-one interview results, it is based on the seven seed categories, which emerged from the study, they include: communications, competency/value measurements, Governance, Partnership, Scope & Architecture, Skills and Business Problems. The researcher followed a systematic process; data was coded to the above seed categories using Nvivo software, thereafter analyzed. The analysis made is supported by quotations (data extracts) which is key in evaluating the level of IT Business maturity whiten the case study. At the end of the analysis of each dimension a maturity rank is given based on assessment inferred from study participants. Generating strategic Big Data goals for an Organization will require the involvement of a strategic team, comprising of both business and IT executives. This is done to gain a good understanding of the business problems, furthermore an assessment of the maturity of alignment between business and IT will help in focusing on the business problems of the Organization (Luftman 2000). The business-IT assessment undergone by this case study consisted of a questionnaire holding 39 items which was adapted from the Strategic Alignment Maturity assessment framework tool which aids the measuring of critical management practices and IT adoptions within the Organization (Luftman 2000b; Sledgianowski and Luftman 2005a).

**Communication:** There should be an awareness on both the part of IT and the business in appreciating and harnessing the benefits of a collaborative dynamic business environment (Luftman 2000b). Literature shows that most firms tend to solicit the a liaison that facilitates knowledge sharing, however this has been seen to be counterproductive because it fosters rigid protocols that hamper discussions and ideas sharing (Luftman 2000b; Reich and Benbasat 2000). The assessment carried out at Confluence Cable Network (CCN) reveals that practically all the senior management staff are not happy with the current level of alignment that exist between the business and IT as regards communication. One of the major contributing factors to this is the fact that the IT department functions in more of a support capacity rather than a fully functioning department because majority of IT work is outsourced. Chaudhury & Bharati (2008); Loh & Venkatraman (1992) state that cost structure and financial benefits play a key role in influencing the decision for opting for outsourcing of IT. Consequently, Communication within the Organization can be ranked at level 1 based on current assessment.

**Competency/ Value Measurements:** There are some schools of thought that suggest that when articulating the measures of contributions that IT brings to an Organization, there is a need to look beyond traditional technical consideration which in itself is a one-dimensional approach rather, looking into measure of human-related measures, cost efficiency and cost effectiveness is a more holistic approach.
Framework for Aligning Big-Data Strategy & Organizational Goals

(Luftman 2000b; Sledgianowski and Luftman 2005b; Van Der Zee and De Jong 1999). In line with this (Maltz et al. 2003; Van Der Zee and De Jong 1999) agree that in measuring business contribution, a firm should view it from a multidimensional perspective additionally IT and Business measures should be approached from an integrated perspective. The IT Competency/ Value measurement at CCN brings some interesting revelations. It was observed that at a certain point in time the Organization had some strategy in place to prioritize IT projects, however this changed over time. The management of CCN will need to put in place measures to ensure the regular assessment and review of IT investments. Base on this assessment of the Competency/ value Measurement in CCN, places the Organization at a level 1 in this criteria.

**Governance:** Governance focuses on the many decisions that an Organization has to make to control the IT activities within the Organization. These activities can include assuming ownership of technology, IT investments, controlling & evaluating budgets and choosing and prioritizing projects. (Henderson et al. 1996). Luftman (2000) opines that it is critical for the decision-making authority to be clearly defined. CCN practices a decentralized form of decision making. This allows the various business units to make decisions but pass them to the MD/CEO for approval. Management meetings are held once every month and this is where a lot of policies are discussed and then passed to other levels of the Organization. Overall, CCN can be ranked at level 1 when considering the Governance criteria.

**Partnership:** Within the Partnership criteria, a critical look is taken to examine how each of the business and IT functions evaluates the contribution of each other. It looks at the sharing of rewards, the trust that is built among the stakeholders and even the sharing of risks. Sledgianowski & Luftman (2005b) suggest that it is positively significant to give IT equal opportunity in creating business strategies. However, an interesting dynamic to appreciate is the extent to which each domain (IT and Business) within an Organization perceives the contribution of the other, creating a healthy business environment with not only mutual trust amongst the stakeholders but also a good working relationship with business sponsors and champions of IT endeavors. It can be inferred that CCN’s level of partnership as regards the IT and business domains respectively are at infant stage. Literature suggests that one way to improve on the level of partnership within the IT and business domains within an Organization is the engagement of champions (Koen 2000; Sledgianowski and Luftman 2005a). The utilization of champions forms a bridge within the Organization in the sense that they become liaisons that fosters effective partnerships, however relationships need to be managed effectively so as not to reduce the level of group interactions and communications between the IT and business domains (Sledgianowski & Luftman 2005b).

**Scope and Architecture:** The scope and architecture criteria examine the strategic choices and decisions management makes when appropriating resources toward its information technology infrastructure, which also considers its reach and range. Additionally, within this criteria, it considers IT’s role in being able to support all business partners and customers in a transparent manner, evaluate & adapt to emerging technologies in an effective way, IT serving as a key driver in influencing business processes and strategies as a true standard and provide flexible solutions to customer needs in a customizable manner (Luftman 2000b; Sledgianowski and Luftman 2005b). At CCN, it was observed that the presenters play a key role with the type or demography of listeners, different demographic group are drowned to specific presenters and therefore having a mix of different types of presenters e.g. old school and new school will create a far more reach as regards to customers coverage. Consequently, after careful evaluation of this component, CCN can be ranked at level one (1).

**Skills:** Within the skills component, strategic IT choices and also practices of management as regards IT human resource is evaluated with a key focus on their cultural and social environment (Luftman 2000b; Sledgianowski and Luftman 2005b). To this end, the skills component looks beyond the normal considerations such as performance feedback, training, career opportunities and even salary, it includes the social environment and the Organizations culture. Some perceptions gathered from CCN suggest that the Organization has issues with some staff working at a high level of efficiency, they also need to identify and place the right staff with the right skill set to the right position that they should function in. Some staff where encouraged to anchor specific shows which was a huge step forward in their respective careers, this is in line with (Watad and DiSanzo 1998), they suggested that rotation of positions within the Organization enables employees to learn and gain experience by performing different tasks associated with multiple functions. To this end, CCN can be ranked level two (2) for the skills component of the maturity assessment.
Second Level Analysis – Applying Digital Business Strategy Themes and articulating business challenges in CTV

This section explores the analysis of the focus group interview results, it is based on the five seed categories, which emerged from the study, they include: Business Challenges, Scale, Scope, Source of Value Creation & Capture, and Speed. The researcher followed a systematic process, data was coded to the above seed categories using Nvivo software, thereafter analyzed.

Scope: Strategic management emphasizes corporate scope as a key question that guides the portfolio of products, businesses, and activities that are carried out in an organization. Literature affirms the link that is perceived relating corporate scope and the logic of diversification having an impact on an organization’s performance (Wade and Hulland 2004). There has also been growing concerns of how an organization can effectively and efficiently use their core competencies, assets, and resources to push further their products and market reach (Bharadwaj, El Sawy, Pavlou, Venkatraman, et al. 2013; Conner and Prahalad 1996). Research at CCN reveals a clear gap that was an obvious concern amongst the respondents, they see the need for development of a Digital Business Strategy. Additionally, they believe that it would increase the reach of the organization.

Source of Value Creation & Capture: DBS goes beyond the traditional perception of value creation and capture leveraging on just physical or tangible resources. It highlights: The increased value that can be gotten from information, Value creation from multisided business models, Value capture through coordinated business model in Networks, Value appropriation through control of digital industry Architecture (Bharadwaj, El Sawy, Pavlou, Venkatraman, et al. 2013; Venkatraman 2004). CCN, suffered some set back after a fire incident that broke out in their office, however the perceptions that was gleaned from the respondents indicated the willingness to explore new territories and boundaries. The richness in the conversations during the focus group interview, helped in revealing a lot more business challenges and gaps within the organization. It also created a synergy amongst the staff, which in turn further helped in highlighting the issues and potential areas that a Big Data project could explore.

Speed of Digital Business Strategy: Time is appreciated as one of the key drivers that could be advantageous to an organization in the highly competitive business environment (Stalk and Hout 1990). Similarly, time which can also be specifically comprehended as speed play a central role within a Digital Business Setting (Bharadwaj, El Sawy, Pavlou, Venkatraman, et al. 2013). Speed of DBS can be understood through four dimensions: Speed of product launches, Speed of Decision making, Speed of supply chain Orchestration and Speed of Network formation and Adaptation. CCN seeks to improve the speed at which news and programs are developed and pushed out to listeners in a more rapid way.

Discussion and Conclusion

This study is focused on the Organization, therefore justifies why only the strategic and operational levels are considered. To this end, in applying the theoretical concepts to the framework, the following components where considered: Locus of responsibility, decision-making rights, deployment of IS personnel, Organizational actors’ values, communication with each other etc. Consequently, the results show similarities in the business challenges that emerged from the one-to-one interviews and from the focus group interview. This was seen from the emerging themes that were coded. The main themes that emerged are: Financial Challenges, IT Challenges, IT Limitations, Human Resources, Marketing issues, and Governance issues.

The Financial challenge is one that seems to be in the forefront of the challenges of the Organization. CCN is looking for new income streams, the Organization believes that the deployment of their Big Data Project will help give them a strategic advantage they are desperately seeking. IT Challenge and Limitations: Like most Organizations, limitations in software, hardware, and resources is a common problem, research reveals that CCN is no different in this. Marketing issues: Organizations will always have to push out their products to the customers, having the right marketing tools in place will aid the organizations in achieving a wider spread of the products and services. Sometimes these tools can be human resource, strategic plans, formation, or even Big Data. Analysis reveals that CCN is struggling with marketing. Brand image is also one thing that CCN seeks to address, it was revealed that a lot of their competitors have tried to give the organization a bad reputation such as high cost of advert rates as...
compared to theirs. Having the right people with the right skills and also a progressive development plan has been seen to be beneficial to an organization. As a TV station, technology is instrumental in making the organization stand out.

Reviewing the findings with the MD/CEO it was concluded that due to terrestrial TV transmission, CTV is limited to Kogi state market. Program contents are expensive to purchase, operational costs are expensive, the nation's economy is struggling and affecting industries that they rely on for adverts. The location clearly a factor, It may seem that the economy of the state is stagnant but the opportunity to archive success still exist. Even though the general perception in the state is that CTV is a leader in viewership but patronage is still at a low. The organization is puzzled with the challenge of changing the attitude of the audience. The Organization will want their Big Data project to address: (1) Firstly, accurately identify demographic trends, behaviors, needs and peak programs for our audience. The hook (i.e. type of program) required to pull maximum viewers and keep them glued stuck on our channels. (2) To demonstrate to businesses analytically how the station can help project their products and grow their business. (3) To also use Big Data to demonstrate to advert agencies our reach and demographic traffic. (4) To this end, the research was successfully able to articulate the business challenges that the Big Data project will seek to address.

Generating Strategic Big Data goals are a fundamental part of any Big Data project. The implementation of the SAVI-BIGD Strategy Framework at CTV reveals that the organization has been able to identify a concise list of strategic goals for their Big Data project which is in turn instrumental to gaining a clearer view of the potential benefits that a Big Data project will bring to their organization. Another incentive of this strategy framework is that it saves cost and time for the organization, because the exercise can be undertaken by a selected member of staff within their organization (domain expert). The recommendation for future research, is to test the framework with other companies and also in different industries this will help generalization of research. To this end, further testing of the framework is currently being undertaken in a radio station this forms Iteration 3 of the design science methodology in the study.

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