

## The Effect of Cultural Norms and Values on Virtual Organizations' Performance in Nigerian Banking Sector

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### Abstract

This paper examines the effect of cultural norms and values on the performance of virtual organizations of selected Nigerian banking sector. Virtual organization is a collection of geographically distributed, functionally and/or culturally diverse entities that are linked by electronic forms of communication and rely on lateral, dynamic relationships for coordination. The effect of cultural norms and values in the virtual organizations as a result of individual differences may impede organizations' performance in Nigerian banking sector. In carrying out this investigation, three research objectives and three research questions were formulated along side with three research hypotheses. Data were reviewed. The main instrument for data collection was questionnaire designed for all level of management staff. The data was analyzed using Z-Test. The result of the study showed that cultural norms and values impact significantly and negatively on virtual organizations' performance. Regional and cultural differences also impact on the effects and consequences of virtual organizations. Alliances among firms from the same country could be less costly because they know their own culture and way of working. For this reason, monitoring each other is less and they spend less for this activity. High-context cultures are strongly driven by well-defined relationships between individuals or organizations and that, managers in low-context cultures tend to evaluate a state of affairs by facts that are immediately visible before them. Special issue makes an important advance in the adoption of organizational value for virtual organizations. Practical prescriptive statements about how to manage individual differences for virtual organizations

should be developed to achieve the kinds of scientific knowledge required. The influence of cultural factors on virtual interaction deserves attention due to the importance of culture building. Organizations should build a strong organizational culture to enhance its success. Also, members of modern day organizations should facilitate effective and efficient cultural value-based relationship to enhance its capital base and remain competitive in today's turbulent market place.

**Key words:** Cultural norms and values; Virtual; Virtual organization; Performance

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### INTRODUCTION

Virtual organizations are organizations existing as a corporate or other wise productive entities that exist mainly through telecommunication tools. Virtual organizations bring together theories about the nature of work in the information age, the organization of social behavior, and the role technology plays in the evolution of social structure. Virtual organizations are seen as the emerging standard in business, resulting from technological advances and changing expectations on the part of consumers and collaborators. They are a collection of geographically distributed, functionally and/or culturally diverse entities that are linked by electronic forms of communication and rely on lateral and dynamic relationships for coordination. Despite their diffuse nature, a common identity holds the organizations, or other constituents. A virtual organization is often described as one that is replete with external ties (Coyle & Schnarr, 1995, p. 29), managed via teams that are assembled and

disassemble according to need (Grenier & Metes, 1995; Lipnack & Stamps, 1997), and consisting of employees who are physically dispersed from one another (Clancy, 1994; Barner, 1996). The result is a “company without walls” (Galbraith, 1995, p. 36) that acts as a “collaborative network of people” working together, regardless of location or who “owns” them (Bleeker, 1994, p. 11; Grenier & Metes, 1995; Hedberg, Bahlgren, Hansson & Olve, 1997).

Purely virtual corporations are still uncommon, and the processes for developing cultural relationship in virtual organizations and the ultimate impacts of virtuality are still unidentified. Proponents of virtual organizing praise the benefits in terms of greater adaptability, faster response time, and task specialization, while critics argue the potential downsides, including greater conflict, decreased firm loyalty, and higher probability of catastrophic effect. Virtual work is closely related to making an extra effort. Many people will not be willing to make this effort simply because they do not get a personal advantage out of it. They are in a comfortable situation and cannot understand why they should take more responsibility without getting paid more.

The fact that a virtual organization is something new which is not well known yet, will keep many people and companies away from virtual work and structures. The employee work is based almost entirely on self-motivation and responsibility. While this might work with some people, we seriously doubt that big organizations can be built on such a nervous pedestal.

Consequently, the apparent effect of cultural norms and values on virtual organizations as a result of individual differences, belief, orientation and background may hinder virtual organizations’ performance. It is against this background that the researcher seeks to investigate the effect of cultural norms and values on virtual organizations performance with specific reference to the Nigerian banking sector.

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## 1. OBJECTIVES QUESTIONS AND HYPOTHESES OF THE STUDY

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### Objectives of the study

The research seeks to:

- Ascertain how cultural norms and values affect inter-organizational relationship in virtual organizations.
- Determine the extent to which high-context cultures are strongly driven by well-defined relationships between individuals or organizations.
- Examine whether managers in low-context cultures tend to evaluate a situation by facts that are immediately visible.

### Research questions

The following research questions are presented for the study.

- To what extent do cultural norms and value affect inter-organizational relationship in virtual organizations in the Nigerian banking sector?
- Are high-context cultures strongly drive by a well-defined relationship between individuals or organizations?
- To what degree do managers in low-context cultures tend to evaluate facts that are immediately visible?

### Research hypotheses

The following hypotheses were postulated for this study.

- Cultural norms and values affect inter-organizational relationship in virtual organizations.
- High-context cultures are strongly driven by a well-defined relationship between individuals or organizations.
- Managers in low-context cultures tend to evaluate facts that are immediately visible.

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## 2. VIRTUAL ORGANIZATIONS

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### 2.1 Conceptual Framework of Virtual Organizations

Virtual organizations fundamentally are a set of organizations that rely on information and communication device to facilitate relationships between people across temporal and geographic boundaries. Virtual organizations represent structures that are centrally motivated by several opportunities in the market. Once the alliance has been formed and the opportunity properly exploited, partners may terminate their relationship or form new alliances and partnerships.

Margret (2005) maintain that a virtual organization or company is one whose members are geographically apart, usually working by computer e-mail and groupware while appearing to others to be a single unified organization with a real physical location.

Virtual organization is an organization connecting separated and disseminated entities (from employees to entire enterprises) and requiring information technology to support their work and communication. The term virtual organization ensued from the phrase “virtual reality”, whose purpose is to look like reality by using electronic sounds and images. It implies the novel and innovative relationships between organizations and individuals.

The virtual organization is a corporation that knows how to exploit partnerships both within and outside its limitations in order to assemble more assets than it presently has possession of. A virtual organization can also be best described as business, existing as an industrious entity that exists primarily from beginning to end by the use of telecommunication apparatus.

Davidow and Malone (1992) describe the distinguishing characteristics of a virtual corporation as a focus on change, being customer-driven and managed,

and the presence of highly skilled workers working in a collaborative climate. Virtual corporations succeed when they develop relationship with their clients that last three to four product generations and include a broad variety of services related to a product. Goldman, Nagel and Preiss (1995, p. 87) agree with these characteristics and build on them, proposing a structure defined by the alliance of distinct core competencies distributed among discrete entities. To be successful, argue Goldman et al. (1995), each firm must focus on achieving world-class excellence in one area, its core competency.

The term virtual organization is used to describe a network of independent firms that join together, often temporarily, to produce a service or product. Virtual organization is often associated with such terms as virtual office, virtual teams, and virtual leadership. The ultimate goal of the virtual organizations is to provide innovative, high-quality products or services instantaneously in response to customer demands.

## 2.2 Virtual Organization as a Process

Virtual organization as process entails a focus on how relationships are perceived by the individual actors whose communication behaviors constitute them. In effect, virtual organization can only occur if the participants accept a mindset different from the traditional perspective on the formality, proximity, and functions of relationships. There are four key characteristics of virtual organizations relevant to communication theory and research. First, a virtual organization entails the development of relationships with a broad range of potential partners, each of which has a particular competency that complements one's own. The phenomena of interest are the fluid patterns of communication and partnership that develop between social entities. Having multiple alternatives allows corporations to quickly assemble the resources and expertise necessary to take advantage of an emerging market. To keep these options open, partnerships are not static, but rather continuously evolve to bring in new information and keep abreast of relevant changes in a turbulent environment. Second, virtual organization capitalizes on the mobility and responsiveness of telecommunication infrastructure to transcend the obstacles of space. This makes corporate and individual partners and clients from around the globe available for inclusion in the virtual web. Physical proximity is no longer the defining factor in what relationships develop and flourish, because distance is no barrier when everyone can access everyone else wherever they might be (Davidow & Malone, 1992).

These elements raise the importance of two factors in relationship success. Time becomes the critical variable in a virtual web. Davidow and Malone (1992, pp. 23-24) describe virtual corporations as time-based, responsiveness to clients as important as cost and quality. The same is also true of their collaborative relationships

with other corporations: rapid response is required to take advantage of the market. With clients valuing responsiveness and potential partners' availability in deciding between alternatives, a corporation that is slow to respond to its clients or to opportunities for partnerships will not be able to compete with corporations that are quick to act. This expectation of responsiveness is essential to the success of the participants, and highlights the need for trust between partners and clients separated in space to facilitate the responsiveness of corporations to opportunities. A violation of trust by any party will force the imposition of control mechanisms that make flexible and quick responses impossible (Handy, 1995, p. 46) and the exile of the offender from the virtual web. Without trust, corporations will be unable to quickly pull together the necessary resources to take advantage of an emerging market, and clients who do not trust a corporation will simply go elsewhere to satisfy their needs. Thus, participants in a virtual web must be able to trust each other's competency and responsiveness for virtual organization to succeed.

Virtual organization can possibly be distinguished from hierarchical and network forms of organization because of its rejection of status boundaries and the lack of importance it ascribes to proximity. Formal hierarchies may connect distant offices and plants in a flow of information and material resources, but they enforce distinctions between departments and material resources as part of a system of command and control (Bush & Frohman, 2009, p. 26) and rely on the proximity of management and workers within departments and offices to develop the trust necessary for a functional system (Handy, 1995, p. 43). Network organization differs from formal hierarchies in its emphasis on the informal patterns of communication that bring more and richer information and expertise to bear on problems and opportunities (Bush & Frohman, 1991; Miles & Snow, 1995; Hanssen-Bauer & Snow, 1996). However, network organization does not require the mobility and freedom from place that are defining features of virtual organization. The fundamental distinction is that neither hierarchies nor network can approach the flexibility of the interdependent relationships across space, time, and formal boundaries that characterize virtual organizations because they rely on the physical proximity of their staff to maintain an effective structure. Virtual organization is different because it capitalizes on telecommunications technology. Hardison (2010) distinguishes between a classical use of a new technology, using it to do better what was done before, and an expressive use, which takes advantage of the unique aspects of the new technology to create new structures and processes. Virtual organization occurs when actors use telecommunications technology expressively, under network and hierarchy organization, the use is classical, supplementing proxemic factors. As technology makes it unnecessary for staff members to encounter

each other face to face, this freedom is exploited to lower overhead costs, place agents in the field, and improve accessibility to a variety of information resources. Thus, virtual organization involves the development and maintenance of interdependent relationships between (1) physically separated actors (e.g., different offices, different countries), (2) temporally separated actors (e.g., different time zones, different schedules), (3) actors with different but complementary needs (e.g., employees and customers, markets and engineers), and (4) actors and communication technologies (e.g., voice mail systems, the World-Wide Web, email accounts). Through the processes of virtual organizations, the relationships between organizational entities and their representatives such as Web pages, and voice mail banks offices are developed and maintained regardless of the location and time schedules of their participants.

### 2.3 Perceptions in Virtual Organization

The act of perception involves a punctuation of the continuous flow of experience (Weick, 1995). That is, perception does not make an actor aware of everything going on in the current situation, but rather highlights some aspects as relevant and disregards others as irrelevant. The human mind can only handle a certain amount of incoming stimuli, and to do so, it must filter the raw data. The filters applied are developed through interaction with the environment, which often includes other actors with their own filters. This suggests a problem: How do actors who share experience but not the same cognitive representations of that experience effectively communicate? While experience can be shared, the retrospective meanings developed by individual actors are not (Weick, 1995). Explaining social content as the result of negotiation between the meanings of individual actors suggests that actors must share some identical meanings in order to be able to communicate at all. This requires the researcher to explain how every possible misperception can be controlled by the actors involved in an impossible task. The solution is to view the content of individual actors' schema as the outcome of actors' learning theories and data through social experience. Social structures are not rigid entities but flexible pools of related symbols, what Giddens (1984) calls stocks of knowledge, suggesting tangible resources neatly ordered in a cognitive library of resources. The question is not whether identical meanings can be assumed, but whether the exchange of symbols is seen as serving the discrepancy reduction goals of each participant. Precision and accuracy are helpful but not required: "'Tree' or 'stone' is enough to decide whether to use a saw or a hammer" (quoted in Weick, 1995, p. 42). As long as understandings are good enough to suggest actions that will result in discrepancy reduction, the interaction sequence will be actions that will result in discrepancy reduction; the interaction sequence will be remembered as effective and the relationships as

valuable. The structuration processes of categorization and regionalization are especially relevant for understanding how available relationships are constructed because they focus attention on how actors recognize a set of alternatives as options for discrepancy reduction.

### 2.4 Categorization in Virtual Organization

Categorization (Turner, 1988) is the process of recognizing specific patterns of stimuli as requiring a given category of response. Categories are the lens that actors take on the world, lenses that highlight different aspects for each actor. This applies for both organizations and actors; the culture of an organization determines what options its members perceive as available in a given situation (Schein, 1992), just as an individual's schema encourage some options and obscure others (Fiske & Taylor, 1991). Actors usually focus on the abstract level of program (e.g., negotiating a business plan; Carver & Scheier, 1982) at the same time that they are involved in the component behaviors whose aggregate impact is discrepancy reduction at the program level. When progress in any of those action loops is impaired, the effects reverberate through the hierarchy to the level of attention, forcing the actor to focus his attention on the lower levels in order to resolve the problem. However, much of virtual organization involves perceiving relationships that are usually enacted through mediated channels as available. The problem is that some cues are missing (e.g., frowns and fidgeting indicating discomfort).

Using mediated channels for significant communications requires the development of cue substitutes (Walther, 1992, p. 60) to identify discrepancies. Cue substitutes are simply alternative stimuli that alert the actor to discrepancies using different patterns of data. Walther (1992) provides the examples of emotions such as, substituting for actual smiles and acronyms like ROTFL (p. 62). (For rolling on the floor laughing) substituting for guffaws. When contact is made over mediated channels, cue substitutes can be negotiated over time (Walther, 1994, p. 68). The problem is that these substitutes require all parties to be paying attention and accessible via the selected channels for these cue substitutes to have an effect.

If alternative cues at the same level of control require contact to be made before they can be recognized, the cues that activate categories must be recognized at higher levels of the hierarchy. Obstacles are perceived in calls not returned, delays in responses, and other temporal aspects of interaction. To be a player in a system, actors must make themselves available as well as accessible in new ways that require a reorganization of behavioral patterns across different levels of the hierarchy of control. Under traditional forms of organization, the important indicators of availability were physical corporate-owned buildings, offices and phones assigned to individuals, and appearances in person at various events in the



local and professional community. To engage in virtual organization is to reject the concept of possession. Places and objects are no longer owned by specific entities, but are rented or loaned to businesses and people who use them as channels for contact. Voice and electronic mail are stored in computers and allow for the time-shifting of communication. Cellular phones and notebook computers allow people to go where they need to go to work. Rented buildings with generic offices assigned on the basis of need rather than status, lower overhead costs by permitting a more efficient use of space. While the information storage is often centralized, this has consequences both for the members of the organization and for those who wish to contact them in terms of the meaning that is attached to space and the objects within it.

The cue substitutes that activate categories in virtual organization involve different objects than the cues active in other organizational forms that assume proximity. In essence, the new cue substitutes rearrange the meanings attached to common objects and places. This is the domain of regionalization, the evaluation of objects, persons, and the division of space in a physical context (e.g., an office) for their relevance to action (Turner, 1988). Regionalization defines the actor's interaction space, including (1) the meaning of space, (2) the meaning of objects in space, (3) the meaning of organized space (i.e., regions), and (4) the meaning of interpersonal demography (i.e., patterns of people in a given place). Virtual organization changes the definition of regions and objects within them. The telecommunications technologies that make virtual organization possible improve access to others and facilitate movement by actors. Thus, the location of the media objects becomes as important as the presence and movement of actors in the physical space. The meaning of media objects (e.g., the telephone, computers) in space is increasingly defined by the ways in which they bring distant others into a virtual interaction space without a common physical referent. In some virtual interaction spaces, such as chat rooms, Web page conferences, conference calls on the telephone and email list servers, the interpersonal demography can be similar to meetings where actors can appear and comment freely. The persistent difference is the fact that "lurkers"—media users who observe but do not participate in mediated communication—cannot be perceived as present unless they speak up. Tapping into their ideas and recognizing them as potential resources, partners, or clients requires some empirical pointer—a business card, a Web site, or a signature file on any email sent to a listserv. Lurkers leave few such pointers in the virtual interaction space; the question is less, what type of space it is than how far afield actors range within it seeking the elusive pointers. To address the movement of actors and the structures that develop to make them accessible and available at all times, the focus must shift to the expectations that arise

for when, where, and how contact is made with other nodes in the system.

## 2.5 Virtual Organization Model

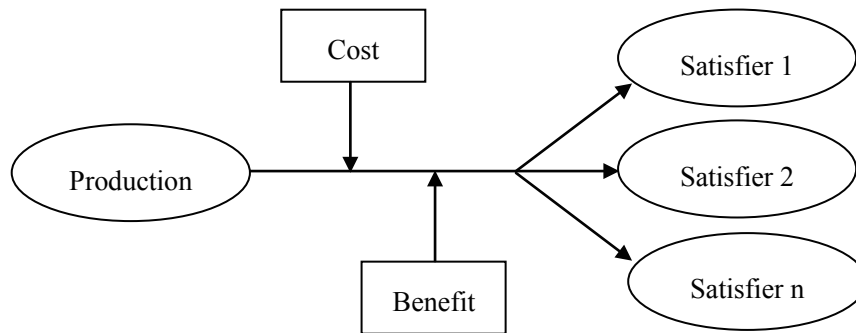
A general model of Virtual Organization (VO) should be able to determine which organization is virtual and which is not, and to assess the breadth and depth of virtualization. The model should be accompanied by clearly stated assumptions and definitions, and it should be suitable for guiding research and explaining core aspects of any VO form.

The study of VO began with descriptions rather than models. Davidow and Malone (1992) chart the concept space of "virtual corporation" by providing an inventory of possible dimensions of VO: a temporary association, the goal of harnessing swiftly a sudden market opportunity, delivery of a virtual product (instantaneous production and customization), use of a sophisticated information network and computer-integrated production processes, changing and permeable boundaries that involve suppliers and customers, amorphous structure, and a need for maintaining trust among constituent members lacking physical contact. It is not clear whether these dimensions are cumulative and how they are related. This inventory inspired many researchers. But they typically focused selectively on parts of the concept. Consequently, almost any of the dimensions could suffice for obtaining the VO legitimacy—a temporary inter-organizational arrangement, moving operations to computer networks, and so on. The arbitrary inclusion of particular VO dimensions was sometimes coupled with a deliberate exclusion of other dimensions. Such is the case of the above cited elimination of the technological condition.

## 2.6 Virtual Task

In spite of this primal ontological "sin", the beginning was also marked by an attempt at formal modeling of VO. Chesbrough (2012) provide a mathematical model of virtual task that, in his view, explained VO. Based on a number of the author's ensuing works, this model became known as the switching principle. Figure 1 depicts a possible graphical representation of the virtual task/switching model. The model postulates that a VO meets its production requirements by searching for alternative satisfiers-external production requirements by searching for alternative satisfiers-external trading partners. The search is dynamic and continuous, and its outcomes are determined by cost/benefit concerns that are depicted as moderating variables in Figure 1. The author maintains that the switching model of VO applies to any social organization (virtual corporation and virtual team alike) as well as to virtual objects in the technological domain.

The virtual task/switching model of VO explains the organization of work (business task or process). Being applicable to this micro level, the model can be incorporated in other macro organizational models.



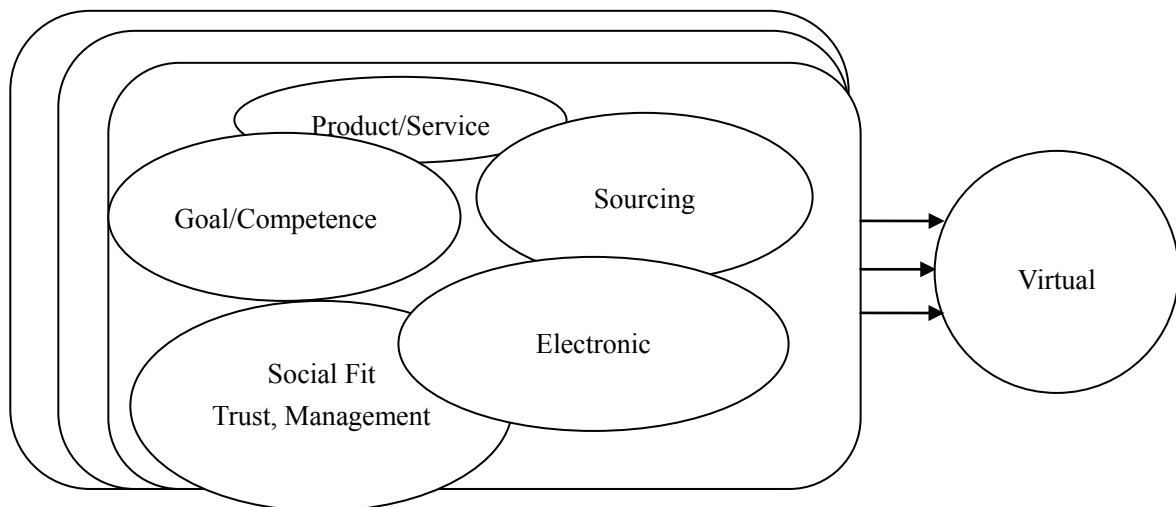
**Figure 1**  
**Virtual Task/Switching Model**

Note. Adapted from Chesbrough, H. W., & Teece, D. J. (2012). When is virtual virtuous? Organizing for innovation. *Harvard Business Review*, 74-98.

## 2.7 Virtual Corporation

A number of researchers based the conceptualization of VO on processes and structures of sourcing, outsourcing, and supply chain. This assumption is the foundation of virtual corporation (Goldman et al., 1995; Kraut et al., 1998; Upton & McAfee, 1996; Venkatraman & Henderson, 1998). Figure 2 presents main aspects of the virtual corporation extrapolated from the literature. The aspect of organizational inputs that are obtained via sourcing and outsourcing refers to both goods and

production services. Venkatraman and Henderson (1998, p. 34) noted that, virtual organizing involves “sourcing tangible physical assets in a complex network of relationships” and “effective contracting for complementary capabilities through a network of suppliers and subcontractors”. The former is materialized in electronic supply chains (Upton & McAfee, 1996) and the latter in competence joins, as exemplified by the well-known group of companies called AgileWeb (Goldman et al., 1995).



**Figure 2**  
**Virtual Corporation**

Note. Adapted from Goldman, S. L., Nagel, R. N., & Preiss, K. (1995). *Agile competitors and virtual organizations, strategies for enriching the customer*. New York, NY: Van Nostrand Publishing.

Several assumptions accompany the modeling of virtual corporations. In keeping with the original concept, boundaries of the virtual corporation are assumed to be flexible/porous (note the line in Figure 2 which represents the organizational boundary of each member company). This is primarily due to a freer flow of electronic data between information systems of VO members. For example, the buyer organization reads and writes data in production schedules of the seller organization, downloads

the code to the seller’s programmable machinery, etc. Next, transaction costs are added to the resource sharing driver for the creation of virtual corporations (e.g., Chesbrough, 2012). Another common assumption is that the involvement in an organizational network or a web is a necessary condition for virtualizing (Goldman et al., 1995; Venkatraman & Henderson, 1998 & Powers 2011). Finally, the concept of virtual corporation attributes a dual meaning to the term “virtual” (Travica, 2005, p. 39). A

virtual corporation consists of similar organizations, each of which is virtualized to some extent. A virtualized part can be a task or process that is moved largely or entirely in the cyberspace and performed through collaboration with partners. The virtualized part renders the character of virtual to the larger organization that it belongs to. Therefore, it can be said that this larger organization is virtual in certain respect. Through interaction of these virtualized organizations, a new VO is created as a supra or meta-opposed to the physical constituent members. Only this meta-organization can deliver a shared virtual product, which is the ultimate purpose of VO. Generic modeling of VO should be able to capture this duality.

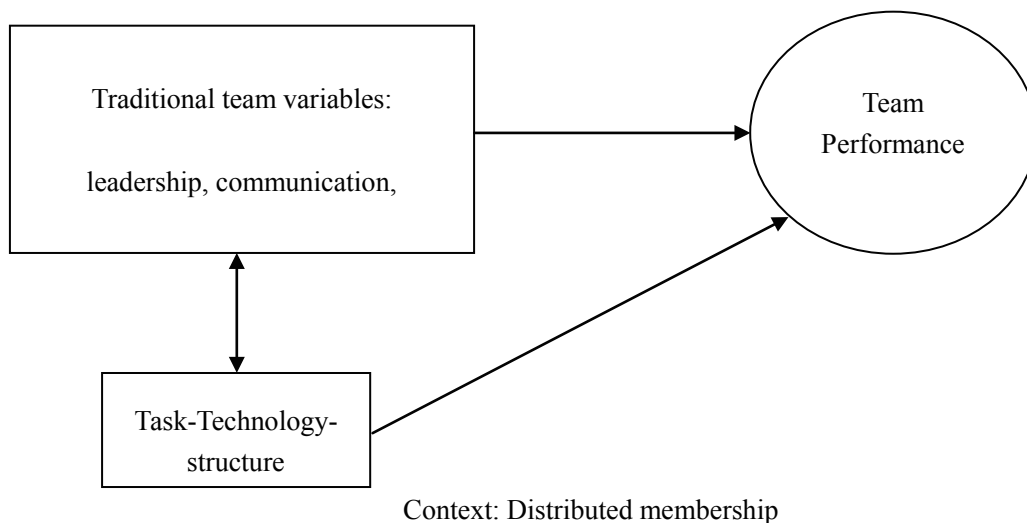
True to the letter of literature, the model of virtual corporation in Figure 2 does not indicate relationships between dimensions as it is customary in quantitative modeling. An instance of rare clarity in modeling was provided by Kraut (1999). They established a causal relationship between electronic networking and social networking, as the antecedents on the one side, and outsourcing, as the consequence on the other side. They found that the social dimension predicted outsourcing better than the technological one.

The model of virtual corporation in Figure 2 can be extended to other VO designs and concepts of verticalness. For example, an electronic marketplace can intermedicate between the buyer and supplier organizations engaged in a VO. Not only does an electronic marketplace facilitate the creation of VOs between its client organizations, but it also participates in virtualizing by simultaneously creating a number of VOs with its clients (Travica, 2005, p. 84). Another possible extension of the model in Figure 2 accounts for the virtual alliance. This VO implies collaboration for the sake of developing a groundbreaking product or a long-term marketing strategy (Chesbrough, 2012; Powers, 2011). Resource sharing is instrumental to these goals. However, in the case of virtual libraries,

resources sharing can be the strategic goal in its own right: members of a library alliance interface their electronic catalogs via the internet and provide search and loan to the users of each participating library (Travica, 1999). The concepts of virtual corporations and virtual product approximate these deliverables. Virtual alliances can be found in various domains, including the tourist industry, high technology, and libraries. However, the literature does not clearly determine the point when a classical alliance becomes virtual.

## 2.8 Virtual Team

Virtual team was originally defined as the group whose members perform work across time, space and organizational boundaries, while decisively relying on IT (Powers, 2011, p. 71). Again, the initial conceptualization was not accompanied by formal modeling. Within the field of information systems, most of the ensuing research has shared an assumption that spatial dispersion, coupled with the use of information technology, sufficiently defines the virtual team. Therefore, the requirement of inter-organizational character was dropped (Powell et al., 2004). Modeling has been applied in individual studies and is for the most part quantitative in character. However, a common set of definitional dimensions of the virtual team cannot be discerned because there is a great variation across the models. What appears in Figure 3 is a summary model with relationships between most of the antecedents unspecified. For the purposes of this discussion, the only dimension differentiating virtual team studies from research on traditional teams-task-technology-structure fit is represented in a separate box. Otherwise, it is apparent that virtual teams are conceptualized predominantly in terms of traditional teams, which include aspects of leadership, communication cohesiveness, demographics, structure, culture, knowledge sharing, IT use, conflict, decision making, and the like.



**Figure 3**  
**Virtual Team**

Note. Adapted from Chesbrough, H. W., & Teece, D. J. (2012). When is virtual virtuous? Organizing for innovation. *Harvard Business Review*, 74-98.

A representative study of virtual teams was conducted by Powers (2011). Staffed by various experts from three organizations, this team had to produce a novel engineering design. The team was supported by groupware-information and communication systems specially built for team support. Measured by the monetary and time objectives, the project was successfully completed. The authors found that the extent of using the groupware was invariant of task uncertainty. Contrary to expectations, some important functions of the groupware were never used. In contrast, the team structure varied during the course of the project and early face-to-face meetings compensated for initially weak professional and social bonds.

The virtual task/switching model contributes to explaining the organizations of work (business task or process) in VO. Capturing the micro level of organization, the model can be incorporated in macro models of VO that compensate for its lack of social aspects. The model of virtual team addresses the meso level of analysis. It also emphasizes the role of IT. However, it still needs to deliver conclusive evidence on this as well as to justify the equalizing of distributed team with virtual designs and the departure from the inter-organizational levels of analysis. Furthermore, the modeling of virtual corporation illuminates the macro level of VO by focusing on the processes and structures of sourcing, outsourcing, and sharing of competences and resources. Research on virtual corporation also contributes to understanding a dual character of the virtual. However, more light still needs to be shed on the role of information and communication systems and on the process of actualizing virtual capabilities. All the models share some sort of reductionism in conceptualizing VO.

### 3. RESEARCH METHODOLOGY

The research design adopted in this study was a survey because it is a very valuable tool for assessing opinions and trends; it can be accurate and it allows one to be selective about whom you ask questions and one can explain further whatever they do not understand. The data through which responses were given in the questionnaire was analyzed and interpreted with the use of percentages and Z-test statistical techniques. This is to convey information at a glance to make for easy understanding and draw conclusion based on the result of the analysis.

### 4. RESEARCH DATA

#### 4.1 Data Presentation

Data is presented in tabular form and briefly discussed accordingly. A well-structured questionnaire was designed and distributed to the sampled staff of the selected banks in FCT-Abuja. For the purpose of testing the hypotheses, the Z-test statistical technique is employed. Eight hundred

and eighty-three (883) questionnaires were prepared and distributed but only eight hundred and fifty-two (852) were correctly filled and returned. Therefore, the researcher based his analysis on the number that was correctly filled and returned. Table 1 shows the questionnaire distribution and collection schedule.

**Table 1**  
**Questionnaire Distribution and Collection Schedule**

No Distributed	No returned	No rejected	No accepted	No not return
883	852	0	852	31
100	96.5%	0%	9.5%	3.5%

Note. Adapted from Researcher Field Survey, 2016.

Table 1 indicates that 883 questionnaire representing 100% were prepared and distributed, 852 (Representing 96.5%) out of 883 were correctly filled and returned while 31 questionnaire representing 3.5% were not returned at all. The researchers based their analysis on the number that was correctly filled and returned which are 852.

#### 4.2 Analysis of Data or Responses Rate

**Table 2**  
**Cultural Norms and Values Affect Inter-organizational Relationship in Virtual Organizations**

Option	Responses	Percentages
Strongly Agreed	410	48.1
Agreed	291	34.1
Strongly Disagreed	87	10.2
Disagreed	41	4.8
No idea	23	2.6
Total	852	99.9

Note. Adapted from Researcher Field Survey, 2016.

Making reference from the figures and percentages contained in Table 2, the researcher understands that the highest number of respondents 410 with the highest percentage 48.1% strongly agreed that cultural norms and values affect inter-organizational relationship in virtual organizations, 291 respondents representing 34.1% agree with the statement, 87 respondents representing 10.2% strongly disagree, 41 respondents representing 4.8% disagree entirely while, 2.6% of the respondents claim not to have knowledge of the statement.

**Table 3**  
**High-context Cultures are Strongly Driven by Well-defined Relationships between Individuals or Organizations**

Option	Responses	Percentages
Strongly Agreed	252	29.5
Agreed	498	58.4
Strongly Disagreed	42	4.9
Disagreed	27	3.1
No idea	33	3.8
Total	852	99.7

Note. Adapted from Researcher Field Survey, 2016.



Table 3 shows that 29.5% and 58.4% of the respondents strongly agreed and agreed with the statement respectively; 42 respondents representing 4.9% strongly disagreed while 27 of the respondents representing 3.1% disagreed entirely. No answer was provided from 33 respondents.

**Table 4**  
**Managers in Low-context Cultures Tend to Evaluate a Situation by Facts that are Immediately Visible**

Option	Responses	Percentages
Strongly Agreed	409	48.0
Agreed	397	46.5
Strongly Disagreed	23	2.6
Disagreed	13	1.5
No idea	10	1.1
Total	852	97.7

Note. Adapted from Researcher Field Survey, 2016.

Table 4 indicates that 409 of the respondents representing 48.0% strongly agreed 397 respondents representing 46.5% agree, with the statement, 2.6% and 1.5% of the respondents strongly disagree and disagree respectively, while 10 respondents representing 1.1% claim not to have any idea.

### 4.3 Testing of Hypothesis (Z Test)

Data already analyzed in Tables 2, 3, and 4, respectively were used to achieve this test. Z test was employed.

#### 4.3.1 Testing of Hypotheses

In testing the hypotheses, it is important to find out whether the differences in opinion are significant enough to draw conclusion. To determine the degree of freedom, the researcher used the formula:  $(R-1)(C-1) = (5-1)(3-1) = (4 \times 2) = 8$ . Giving 0.05 as the significant level and the degree of freedom = 8.

#### Hypothesis one

**Ho:** Cultural norms and values do not affect inter-organizational relationship in virtual organizations.

**Hi:** Cultural norms and values affect inter-organizational relationship in virtual organizations.

#### Hypothesis Two

**Ho:** High-context cultures are not strongly driven by well-defined relationships between individuals or organizations.

**Hi:** High-context cultures are strongly driven by well-defined relationships between individuals or organizations.

#### Hypothesis Three

**Ho:** Managers in low-context cultures do not tend to evaluate facts that are immediately visible.

**Hi:** Managers in low-context cultures tend to evaluate facts that are immediately visible.

### 4.4.1 Contingency Table

**Table 5**

Variable	Table 2	Table 3	Table 4	Total
Strongly Agreed	410	252	409	1071
Agreed	291	498	397	1186
Strongly Disagreed	87	42	23	152
Disagreed	41	27	13	81
No idea	23	33	10	66
Total	852	852	852	2556

### 4.4.2 Z-Test (Test of Hypotheses)

The hypotheses earlier formulated were tested below to ascertain the authenticity of Table 2, 3 and 4.

$$Z = \frac{\bar{X} - \mu}{S\bar{X}} \text{ or } \frac{X - \bar{X}}{S}$$

Where  $Z$  = Value equivalent to the mean value

$\mu$  = Population mean

$\bar{S}\bar{X}$  = Standard deviation of the sampling distribution of the mean or more simply

$$S/\sqrt{N}$$

Where  $X$  = Score

$\bar{X}$  = Mean of the distribution

$S$  = Standard deviation of the distribution

#### Z-Test Calculated

$X$	Deviation about the mean $X - \bar{X}$	Z score $(X - \bar{X})/S$
410	239.6	$239.6 \div 176.6 = 1.36$
291	120.6	$120.6 \div 176.6 = 0.68$
87	-83.4	$-83.4 \div 176.6 = -0.47$
41	-129.4	$-129.4 \div 176.6 = -0.73$
23	-147.4	$-147.4 \div 176.6 = -0.83$
252	81.6	$81.6 \div 176.6 = 0.46$
498	327.6	$327.6 \div 176.6 = 1.86$
42	-128.4	$-128.4 \div 176.6 = -0.73$
27	-143.4	$-143.4 \div 176.6 = -0.81$
33	-137.4	$-137.4 \div 176.6 = -0.78$
409	238.6	$238.6 \div 176.7 = 1.35$
397	226.6	$226.6 \div 176.6 = 1.28$
23	-147.4	$-147.4 \div 176.6 = -0.83$
13	-157.4	$-157.4 \div 176.7 = -0.89$
10	-160.4	$-160.4 \div 176.6 = -0.91$

$$\sum X = 2556$$

$$\bar{X} = \frac{\sum X}{F} = \frac{2556}{15} = 170.4$$

$$S = 176.6 \quad Z \text{ score} = 0.01$$

The researcher state the null hypothesis and the alternative hypothesis

$H_0: \mu = \bar{X}$  either reject or accept

$H_1: \bar{X} \geq O$  accept

$H_2: \bar{X} \leq O$  reject

The test statistics shall be the sampling distribution of the mean.

The significance level is set at 5% (0.05) in view of the hypotheses formulated.

The computed Z score is 0.01 and the critical value of Z is 176.6.

#### **Decision Rule**

The computed Z score of 0.01 is < than the critical value of 0.176.6 thus falling into the rejection region. The researcher therefore rejects  $H_0$  and accepts  $H_1$ , meaning cultural norms and values plays a role in shaping inter-organizational structure and in structuring alliance relationships in virtual organizations; that High-context cultures are strongly driven by well-defined relationships between individuals or organizations and Managers in low-context cultures tend to evaluate facts that are immediately visible before them.

## **5. SUMMARY OF MAJOR FINDINGS**

The following findings were arrived at after taking into consideration the analysis of data and test of hypotheses in line with the objectives of the study.

Findings shows that, cultural norms and values impact negatively on inter-organizational relationship in virtual organizations as location and national culture influence the development of relationship and its associated relational norms, as relationship producing mechanisms vary according to the cultural context. It was revealed that regional and cultural differences impact the effects and consequences of inter-organizational trust. Alliances among firms from the same country could be less costly because they know their own culture and way of working, for this reason, monitoring each other is less and they spend less for this activity.

Secondly, the result indicates that, high-context cultures are strongly driven by well-defined relationships between individuals or organizations and that manager in low-context cultures tend to evaluate a state of affairs by facts that are immediately visible. The antecedents of trust differ depending on the national setting and this is supported by the perception to the cultural context.

Finally, knowledge sharing is positively related to virtual organization productivity as long as adequate and appropriate levels of cultural norm and value are present and properly integration.

## **CONCLUSION**

Virtual organization is being viewed in the technology lens what had shadowed the complexity of the subject. We have seen in the review that information technology is an

intermediate platform between the actors of the network, and this intermediary must be completed with other traditional media in order to establish trust and control in virtual environment. Virtual organization mainly is an organizing process where economic exploitation is twined with an exploration perspective in order to remain flexible due to changes in market environment. Virtual organizations is a complex phenomenon that cannot be reduced to singular dimensions that are often used in the literature-spatial dispersion of members, the buyers switching between suppliers and outsourcing and a combination of these and some other characteristics is needed in order to identify and assess a virtual organizations. After all, almost every organization includes share tasks or projects, which include other participants, which literally and figuratively take place outside the organization.

## **RECOMMENDATIONS**

The influence of cultural factors on virtual interaction deserves attention due to the importance of culture building. Organizations should build a strong organizational culture that will integrate regional and cultural differences to enhance its success.

Special issue makes an important advance in the adoption of organizational value for virtual organizations. Practical prescriptive statements about how to manage individual differences for virtual organizations should be developed to achieve the kinds of scientific knowledge required particularly in the high-context cultures.

Finally, members of modern day organizations should facilitate effective and efficient cultural value based relationship by truth to enhance its capital base and remain competitive in today's turbulent market place.

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