RESEARCH ARTICLE

INVESTIGATING DIMENSIONS OF SUDANESE NATIONAL CULTURE: A COMPARATIVE OUTLOOK

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ABSTRACT

Previous studies conducted on Sudan national culture had adopted the indices of the Arab national culture to represent Sudan's national culture, which represents a major limitation for these studies. Developing an index of national culture for Sudan with data obtained from a Sudanese sample will fill the gap in the literature and contributes to recent research on the field. The comparison between scores of the Sudanese cultural dimensions on one hand, and the Arab and African countries, on the other hand, may provide evidence on how far the Sudanese culture is closer to the Arab culture compared to the African culture. The study aims to empirically examine the national cultural dimensions in the Sudanese context in order to see whether it differ from the Arabic Countries and African countries score as described by Hofstede cultural theory. Hofstede Value Survey Module 94 was employed as the research instrument to measure Hofstede’s five cultural dimensions on a sample of 649 participants. National culture dimensions measured are Power distance, Individualism, masculinity, uncertainty avoidance, and long term orientation. The findings revealed that Sudanese culture is high on individualism and uncertainty avoidance indices, low on power distance and masculinity, and long-term orientation indices. Sudan is similar to the Arab countries in the uncertainty avoidance dimension, and it is similar to the African countries in both the feminist dimension and the short-term orientation dimension.

Key Words: Culture, National Culture Dimensions, Hofstede, Arab, Africa, Sudan.

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INTRODUCTION

Culture provides a communally held set of customs and meanings, many of which are adopted by the person, becoming part of the personality and influencing interactions with the social and physical environment (Dake, 1991). Many definitions of culture are similar to “the collective programming of the mind distinguishing the members of one group or category of people from the other” (Hofstede, 2011). In the framework of the ongoing debate on culture, there has been a trend of visualizing the concept with the help of models, which has led to more than 20 different versions (Black, 2003). Looking at a selection of the most famous models, it becomes clear that the creators almost share the common view that culture can be defined by the values that individuals within societies hold. Common patterns in this regard are, for example, peoples’ desire to define themselves as either an individual or part of a community as well as the extent to which people obey laws and rules in society. Hofstede started the development of his set of cultural dimensions in the 1970s when he got the chance to gather data on the values of IBM employees from 50 different countries working at local subsidiaries of the multinational. After statistically analyzing the results, Hofstede found that there were country-specific solutions to the four basic problem areas of social inequality and the relationship with authority, the relationship between the individual and the group, concepts of masculinity and femininity as well as ways of dealing with uncertainty and ambiguity. He then concluded that each of those problem areas stood for a cultural dimensions, thus “an aspect of culture that can be measured relative to other cultures” (Hofstede and Hofstede, 2005). Even though a variety of cultural frameworks has been developed and discussed in the academic world, the most widely used and cited remain Hofstede’s Five National Cultural Dimensions (Black, 2003). This model possesses an extraordinary position in literature due to Hofstede’s numerical measurement of national culture that has brought him worldwide recognition. The possibility of “calculating” cultural dimension scores and putting them in relation has given countless researchers the opportunity to describe the national culture of countries and compare different nations in a practical way.

Hofstede's cultural dimensions: Several scholars studied the choice of dimensions that appropriate for conceptualizing and operationalizing culture (Hofstede, 1984, 1991; Schwartz, 1994; Steenkamp, 2001). However, Hofstede’s framework is the most extensively used national cultural framework in psychology, sociology, marketing, or management studies (Steenkamp, 2001). Hofstede utilized 116,000 questionnaires from over 60,000 respondents in seventy countries in his empirical study (Hofstede, 1984, 1991, 2001). Hofstede’s metric has been popular for several reasons. First, Hofstede’s framework is incredibly and shows meaningful relationships with significant demographic, geographic, economic, and political indicators of a society (Kale and Barnes 1992). Second, Hofstede’s works are confirmed empirically through empirical observation (e.g. Shackleton and Ali 1990) and has been heavily cited as the most popular and accepted theory of culture types (Sondergaard, 1994). Hofstede’s theory has been noted as “a watershed conceptual foundation for many
subsequent cross-national research endeavours” (Fernandez et al., 1997) and “the beginnings of the foundation that could assist scientific theory building in cross-cultural research”. Third, it consistently proves to be beneficial when adopted in cross-cultural and international studies (e.g. Donthu and Yoo 1998; Furrer et al., 2000). Finally, Hofstede’s cultural dimensions are highly relevant to explaining cross-cultural behaviour on service recovery attributes. Hofstede’s five-dimensional measure of culture is the most broadly used perspective on cultural values (Farhangmehr et al., 2007). Hofstede’s cultural dimensional measures of culture include the following 5 factors:

**Power distance:** Firstly, there is power distance, in which is the degree to which members that hold less power within an organization or institution within a country assume and accept that power is going to be unequal. (Boonghee et al., 2011). Hofstede (1980) determined that with high power distance norms, power holders are entitled to privileges, a few should be independent whereas most would be dependent, there is a latent conflict between powerful and the powerless, stress is placed on coercive and referent power, other people are a threat to one’s power and rarely can be trusted, and there should be an order of inequality in this world in which everyone has his rightful place. Liu et al., (2001) report that those of high power distance are more likely to spread negative word of mouth communication because they consider themselves to have higher power and are therefore less tolerant of negative service quality. Finally, they are more likely to complain when they experience a problem (Liu et al., 2001).

**Uncertainty-Avoidance:** Secondly, there is uncertainty-avoidance is the degree to which employees feel threatened by unknown or uncertain situations. Uncertainty-avoidance is scored from zero, indicating a culture with the weakest uncertainty avoidance, to 100, indicating a culture with the strongest uncertainty avoidance (Hofstede, 1997). In cultures of strong uncertainty avoidance, rules and formality to structure life and competence is a strong value resulting in belief in experts. In weak uncertainty avoidance cultures, there is a strong belief in the generalist. Moreover, in weak uncertainty avoidance cultures, people tend to be more innovative and entrepreneurial. In cultures of strong uncertainty avoidance, people tend to be better groomed than in cultures of weak uncertainty avoidance because it is one way to face a threatening world. For example, purity in food is an important need in cultures of high uncertainty avoidance (De Mooij and Hofstede, 2002). This dimension is the extent to which members of a culture are vulnerable or feel unsafe because of uncertain or unknown situations (Yoo et al., 2011).

**Individualism/Collectivism:** The dimension of individualism refers to the extent to which the ties between individuals are loose (Hofstede, 1997). In individualist cultures, people look after themselves and their immediate family only. In collectivist cultures, individuals belong to groups that look after them in exchange for loyalty. In individualist cultures, identity is in the person; in collectivist cultures, identity is based on the social network to which one belongs. In individualism cultures there is more explicit, verbal communication; in collectivism cultures, communication is more implicit (De Mooij and Hofstede, 2002). Similarly, Triandis (1995) described collectivism as a social pattern that includes individuals who see themselves as an integral part of one or more collectives or in-groups, such as family and co-workers. People who are more collectivist are often motivated by norms and duties imposed by the in-group, give priority to the goals of the in-group, and try to emphasize their connectedness with the in-group. He defines individualism as a social pattern that consists of individuals who see themselves as autonomous and independent. People who are more individualistic are motivated by their own preferences, needs, and rights, give priority to their personal goals, and emphasize a rational analysis of their relationships with others (Triandis, 1994). Additionally, in individualist cultures, people often ignore the potential negative consequences of their buying behavior preferring to focus on the positive consequences of their actions and on their own feelings and goals. This may not be true for people from collectivist cultures, which are more likely to focus on the potential negative consequences of their behavior and the effect of their actions on in-group members (Triandis, 1995).

**Masculinity versus Femininity:** Fourthly is masculinity, which represents dominant, leading male sex role patterns in the majority of both traditional and modern societies (Yoo, et al., 2011). In masculine cultures, the dominant values are achievement and success performance and achievement is important. Status is important to show success. In contrast, the dominant values in feminine cultures are caring for others and quality of life. Feminine cultures have a people orientation, small is beautiful, and status is not very important. In masculine cultures there is substantial role differentiation between males and females whereas, in feminine cultures there is less role differentiation (De Mooij and Hofstede, 2005). The cultural masculinity characterized societies of clearly divided roles of gender where Men are expected to be assertive, tough, and focused on material success. Women are expected to be “modest, tender, and concerned with the quality of life (Hofstede, 1997).

**Long Term Orientation and Short Term Orientation:** The last Hofstede dimension is long-term orientation, which looks at long-term and short-term orientation towards futures (yoo et al., 2011). Long term orientation and short term orientation have two different characteristics. Long term directions societies, are characterized by persistence, ordering relationships by status and observing this order, thrift, and having a sense of shame. Whereas, People from short term societies are characterized by personal steadiness and stability, protecting the ‘face’, respect or tradition and reciprocation of greetings, favors, and gifts. Long term oriented cultures found in East Asia value acceptance of change, perseverance, thrift, and pursuit of peace of mind unlike the short term oriented cultures found in the Western world (De Mooij and Hofstede, 2005). Long term orientation tries to distinguish the difference in thinking between the East and West. Long-term orientation “stands for the fostering of virtues oriented towards future rewards, specifically perseverance and thrift” (Hofstede, 2001). This dimension represents a range of Confucian like values and was termed Confucian Dynamism (Bond, 1987). Hofstede (1991) later on suggested the long-versus short-term designation as more appropriate for this dimension.

**Related Studies on National Culture:** Various different researchers have studied the topic of national culture, its value dimensions and its influences. The first researchers were Kluckhohn and Strodtbeck (1961), who proposed that it is possible to distinguish cultures based on how research participants - 106 in total - each addressed five common
human concerns about universal problems, to figure out human’s relations with time, nature and each other, the basic human motives and the basis of human nature. Adler, (1989), explained that values relate to a single belief of a quite specific variety, as opposed to an attitude that relates to a firm of numerous beliefs around a specific person or scenario. The same corporate angle to intercultural differences research was used a few decades later by Hall and Hall (1990) among 180 participants who carried out a similar research with the focus to help managers in the United States to understand the behavior of West-German and French employees based on four value dimensions. Their idea is that this understanding happens when one experiences a extremely different culture. The role of culture is both the influential factor for behavior along with the interpretation factor of behavior, defined in four value dimensions: fast against slow messages, high against low context messages and the value definition of space and time.

Barkow et al. (1992) recognized three cultural types: (1) Meta-culture, (2) Evoked-culture, and (3) Epidemiological-culture. The history of culture signifies that values are among the essential elements that form the foundation of a provided culture. Values are shared among the people existing in the same era and are passed on from one particular generation to another by social procedure. These traditionally acquired values present a base for forming a culture and a yardstick for socially suitable norms which affect individual's formation of attitudes. A more extensive research has been performed by Trompenaars and Hampden-Turner (1994) with a sample of 15.000 employees in companies, focused on mixed behavioral and value patterns as cultural dimensions of business execution. They identified seven value orientations as waves of culture that involve the definition of defuse against specific cultures, universalism, individualism, the achievement versus ascription and the human aspects of emotions and the relationships with time and nature, focused on the behavior aspect.

The most comprehensive study to date that empirically researched the relationship between culture and leader behavior in so many societies is the research of the Global Leadership and Organizational Behavior Effectiveness (GLOBE) group (House et al., 2004). They conducted research on 17.300 middle managers in 951 organizations focusing on the preferred states of behavior as measurement instrument. This research takes the results of the research of Hofstede (1980, 2001). The major finding of the research is that leader effectiveness is contextual. It is embedded in the societal and organizational norms, values and beliefs of the people being led. As the first step to measure leader effectiveness across cultures, GLOBE empirically proposed nine cultural dimensions to make it possible to confine the similarities and/or differences in norms, values, beliefs among societies building on the work of many researchers till that date. Also the research of Hofstede (1980, 2001) is focused on the value dimensions. With this research GLOBE expanded Hofstede’s (1980) research by a very large empirical study. The work that Hofstede published in 1980 – investigating approximately 116.000 IBM-employees in the 1970’s - was based on his Value Survey Method (VSM) examining work-related values in 79 different countries and continental regions. In his research he sees culture as “the collective programming of the mind distinguishing the members of one group or category of people from the other” (Hofstede, 2011), where he aggregates scores of individuals within one organization to from the business’ cultural outcome.

Various studies have shed light into the problem of the homogeneity assumption of the Arab region. For instance, Tolba (2003) studied the Jordanians users’ culture characteristics and the link between cultural dimensions and user interface acceptance. She found that users in Jordan are high power distance, collectivistic, feminine, high uncertainty avoidance, and time orientation which are close to Hofstede’s analysis for Arab world. Later in (2006) Twai studied the Libyan users’ culture characteristics and the relationship between cultural dimensions and the adoption of information system. His study showed that Libya is high on the power distance dimension, high on uncertainty avoidance, more feminine culture. Al Dulaimi (2011) conducted a study with the objective of empirically examining the national culture dimensions for Qatar based on Hofstede’s (1980, 2001) theory of national culture dimensions. His research findings revealed that are significant differences in Hofstede’s cultural dimensional indices between Qatar, as the current study sample, and the Arab Countries score on Hofstede’s measure. The author believes that the recent economic transformation in the country has led to equivalent transformation in the cultural values of this country. His conclusion denies the assumption that culture maintains stability over time.

Fischer and Al-Issa’s (2012) replicated Hofstede’s survey (VSM08) on 329 students from eight Arab speaking countries studying in the University of Sharjah in the UAE, of which four countries were found to be from the original study. The results of the study were found to be very different from Hofstede’s original scores for the Arab States. Respondents scored very low on power distance and uncertainty avoidance, but high in individualism and masculinity; a complete reversal of Hofstede’s original score for the Arab States. Later, Rarick et al., (2013) examined Ugandan cultural values used Hofstede cultural value survey and concluded that Uganda is a low power distance, masculine, collectivist, high in uncertainty avoidance, and time short-term orientated. Hasan (2015) conducted a study with purpose of highlighting some of the key features of Kurds cultural values in Iraq adopting Hofstede’s work on cultural dimensions as a paradigm. The result of the study seemed to be not in line with Hofstede’s findings in the original study done on Iraq. Therefore, the author concludes that there is a shift in the result of these cultural dimensions and it needs to be re-investigated every so often. This finding might support the argument Hofstede’s typology can only work best when measurements are on national level which it looks at the whole nation as homogenous society. Pirjir (2017) conducted a case study with the objective of analyzing four cultural dimensions of the Republic of Sudan. In analyzing these dimensions, he focused on a comparative presentation of the above mentioned dimensions with the similar ones belonging to the countries of the ten International Clusters (Globe classification). The author stated that he adopted four dimensions only because of a direct consequence of the political and the economic contexts in Sudan which made impossible a conduct a scholar survey. Looking at the scores the author adopted in his study as representing the case of Sudan, it is evident that the author has not made any survey, he just borrowed the Arab countries scores to represent the scores of Sudan. This fact renders the results of this study invalid.

**Choice of National Culture Concept:** Looking at the concept of national culture, it becomes clear that the major consensus in the academic world is a focus on certain values that
supposedly make up national culture. Independent of the specific model that is used to define the concept, all authors assume that national culture has a relevant impact on individuals within a society and the way they act and think. Due to this relevance, national culture offers great opportunities for research, specifically when looking at the scope of the influence the aspect has on different fields. This is also reflected by the immense attention national culture gets in the academic field. For this research, national culture is defined by means of Hofstede’s Cultural Dimensions model. This choice is justified by the model’s popularity and frequent citation as well as its approach to measure culture in a numerical way, which is required for the subsequent empirical research of this thesis. When using Hofstede’s model, however, one has to be aware of the criticism he has received from various authors, who claim that his work is outdated, too context-specific and neglects relevant aspects like race, religion and first language, which leads to a lack of generalizability (Javidan, 2006; McSweeney, 2002). Hofstede has continued to address the points brought up by his critics over the years and has also received strong support from the scientific community. Mikael Sondergaard, who analyzed 61 replications of Hofstede’s study in 1994, confirmed the validity of his results, while Triandis (2004) states that “Hofstede’s work has become the standard against which new work on cultural differences is validated. Almost every publication that deals with cultural differences and includes many cultures is likely to reference Hofstede”. Magala (2009) argues that “the robustness of Hofstede’s model, in spite of growing criticism, is being acknowledged far beyond the academic world.”

Research Objectives

Sudan is a north African country closely associated with Muslim and Arab cultural traditions. The Sudanese Arabs are approximately 70% of the populations and the rest is formed by the traditional native groups as Fallata, Fur, Beja, etc. (CIA World Factbook, Sudan). The central part of the country could be ranked in the Arab-speaking region as Egypt or Morocco. The other parts Sudan might have been influenced by the cultures of the neighboring countries. There is a strong belief among most Sudanese people that the national culture of Sudan is dominated by Arab culture rather than any African culture. Comparing the dimensions of Sudan national culture with Arabs and some African culture might show an interesting result. The previous studies conducted on Sudan national culture have adopted the indices of the Arab national culture to represent Sudan’s national culture, which represents a major limitation for these studies. According to Al-Nashmi and Syd Zin (2011), different Arab people from different Arab countries are not the same in terms of their national cultural values. It is worthwhile to mention the fact of the inexistence of Sudan’s cultural values in Hofsted’s survey or in the GLOBE Book of the In-Depth Studies. To date, most of the previous research examined national culture was based on Hofstede's concept of national culture. Sudan is not on Hofstedc's cultural dimension; he studied some Arab countries (Egypt, Iraq, Kuwait, Libya, UAE, and Lebanon) and generalized findings obtained to all Arab countries including Sudan in a group as “Arabic-speaking countries”. As a group, the seven Arab countries included in Hofstede’s model scored high on the power distance, the uncertainty avoidance, and the masculinity dimensions, while scoring low on the individualism dimension. Although Sudan shares two pillars of culture with other Arab and Islamic countries, it has unique characteristics that warrant separate treatment. Among these unique aspects are the complete adoptions of political Islam regime in all social and economic life, the mix of Arab African cultures, the level of economic development, the population density and female labor force participation. Thus the study has two broad objectives. First, it intends to develop an index of national culture for Sudan by replicate Hofstede’s cultural dimensions with data obtained from a Sudanese sample to fill the gap in the literature and contributes to recent research on Hofstede's cultural dimensions by testing the robustness of the Hofstede model. Second, to empirically examine the national cultural dimensions using VSM in the Sudanese context in order to see whether it differs from the Arabic Countries and some African countries score as described by (Hofstede 1980-2001). The comparison between scores of the Sudanese cultural dimensions on one hand, and the Arab and African countries, on the other hand, may provide evidence on how far the Sudanese culture is closer to the Arab culture compared to the African culture.

METHODS

Hofstede Value Survey Module 94 (VSM 94), was employed as the research instrument to measures Hofstede’s five cultural dimensions at individual level. National culture dimensions measured are Power distance, Individualism, masculinity, uncertainty avoidance, and long term orientation. The results were verified by using the index calculation method developed by Hofstede.

Sample: The data reported in this paper were collected from Sudanese respondents in Khartoum using a self-administered quantitative survey. From a total of 700 questionnaires distributed, 640 were returned and used for the study, of which 340 (53%) were males and 300 (47) were females. more than 85 % of the respondents were between 20 and 40 years old. About 55% of the respondents were students whereas, 28% were employee in the public and private sectors, and 17% were self-employed.

ANALYSIS AND DISCUSSION

Data in Table 1 presents the mean score of the five dimensions of culture: Power Distance (large vs small), Individualism vs Collectivism, Masculinity vs Femininity, Uncertainty Avoidance (strong vs weak), Long vs Short-Term Orientation. The calculation is based on the answers to the twenty questions on a five-point scale. Where Answers range from (1) very important, and (5) not at all important.

Power Distance Index: Power Distance Index (PDI) is defined as “Power distance is the extent to which the less powerful members of organizations and institutions (like the family) accept and expect that power is distributed unequally” (Hofstede, 1997). Cultures with high power distance have power and influence concentrated in the hands of a few rather than distributed throughout the population (Hofstede, 2001, 2005). It ranges in value from zero, for a culture with a small power-distance, to about 100, for a culture with a large power distance. The high rank of power distance indicates the high level of power and wealth inequality within society. Countries with a high level of power distance practice authoritative structure of vertical hierarchies where, everyone has his/her
It is worth pointing out that there is a negative relationship between this dimension and the power distance dimension. Countries with large power distance, such as Arab countries, tend to be more collectivist. In such countries, people are more dependent on groups as well as on power figures than on individuals (Hofstede, 1994). While in this study, we have different results, Sudan has a lower power distance and tends to be more individualism.

**Masculinity/ femininity Index Formula:** Masculinity describes the extent of roles division between sexes to which people in society put different emphasis on work goals and assertiveness as opposed to personal goals and nurture. Masculinity is the opposite of femininity. This dimension refers to societies where gender roles are clearly distinct: men are —assertive, tough, and materialistic— and women are —modest, tender, and concerned with the quality of life. Femininity stands for a society in which social gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life (Hofstede, 2001, 2005). The index formula is:

\[
\text{MAS} = +60m(05) - 20m(07) + 20m(15) - 70m(20) + 100
\]

Sudan Masculinity/ Femininity Index = 60(1.6) - 20(1.7) + 20(3.7) - 70(3) + 100 = 26

The Masculinity Index for Sudan reported in this study is (26) which is significantly lower than that of Arabs and Africans reported by Hofstede and demonstrating a strong level of femininity. This means that Sudanese are caring for others and quality of life, have a people-orientation and for them, status is not very important. Arabs and Africans as well as Sudanese are all considered to be close to the feminine side of the masculine-feminine continuum in that they care about establishing a friendly relationship with other people and “work to live”, whereas in a masculine society, the belief is that a person “lives to work” (Hofstede, 2001).

**Uncertainty Avoidance Index:** This dimension is defined as the degree to which the members of institutions and organizations within a society feel threatened by uncertain, unknown, ambiguous, or unstructured situations (Pierre Jean, 2012). According to G. Hofstede (1980), uncertainty avoidance measures the extent to which members of an organizational society feel threatened by and try to avoid future uncertainty or ambiguous situations. The index formula is:

\[
\text{LTO} = \frac{\sum \text{Value of items}}{\sum \text{Mean of items}}
\]

Table 1. Mean Scores and value score for Sudanese culture

<table>
<thead>
<tr>
<th>No.</th>
<th>measure</th>
<th>Mean score</th>
<th>Value Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>[Q1] Have sufficient time for your personal or family life.</td>
<td>1.63</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>[Q2] Have good physical working conditions</td>
<td>1.69</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>[Q3] Have security of employment.</td>
<td>1.90</td>
<td>79</td>
</tr>
<tr>
<td>4</td>
<td>[Q4] Have an element of variety and adventure in the job</td>
<td>2.41</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>[Q5] Have a good working relationship with your direct superior</td>
<td>2.05</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>[Q6] Be consulted by your direct superior in his/her decisions</td>
<td>1.95</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>[Q7] Have an opportunity for advancement to higher level jobs</td>
<td>1.72</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>[Q8] Most people can be trusted.</td>
<td>1.78</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>[Q9] Have often do you feel nervous or tense at work?</td>
<td>3.03</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>[Q10] One can be a good manager without having precise answers to most questions that subordinates may raise about their work.</td>
<td>2.71</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>[Q11] Competition between employees usually does more harm than good.</td>
<td>3.04</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>[Q12] A company’s or organization’s rules should not be broken.</td>
<td>2.38</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>[Q13] What to do to buy an expensive good</td>
<td>2.00</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>[Q14] Insistence is the best way to achieve results</td>
<td>3.23</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>[Q15] Your personality in work is the same when in home</td>
<td>1.52</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>[Q16] Be consulted by your direct superior in his/her decisions</td>
<td>2.01</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>[Q17] One can be a good manager without having precise answers to most questions that subordinates may raise about their work.</td>
<td>3.25</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>[Q18] The culture of the society feel threatened by and try to avoid future uncertainty or ambiguous situations.</td>
<td>43</td>
<td></td>
</tr>
</tbody>
</table>

**Masculinity/ femininity Index Formula:**

\[
\text{Masculinity/ femininity Index Formula:} = \text{PD} - \text{IND}
\]

**Power Distance Index Formula:**

\[
\text{PDI} = \frac{20m(03) + 35m(06) + 25m(14) - 20m(17) - 20}{-50m(01) + 30m(02) + 20m(04) - 25m(08) + 130}
\]

**Individualism/ Collectivism Index**:

According to G. Hofstede (1980), individualism describes the relationship between the individual and the collectivity which prevails in a given society. Individualism is the opposite of collectivism. It stands for a society in which the ties between individuals are loose: a person is expected to look after himself or herself and his or her immediate family only. Collectivism stands for a society in which social gender roles are clearly distinct: men are —assertive, tough, and materialistic— and women are —modest, tender, and concerned with the quality of life. Femininity stands for a society in which social gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life (Hofstede, 2001, 2005). The index formula is:

\[
\text{IDV} = \frac{20m(17) + 35m(23)}{-50m(01) + 30m(1.6) + 30m(1.6) + 20m(1.9) - 25(2.3) + 130} = 79
\]

**Uncertainty Avoidance Index:** This dimension is defined as the degree to which the members of institutions and organizations within a society feel threatened by uncertain, unknown, ambiguous, or unstructured situations (Pierre Jean, 2012). According to G. Hofstede (1980), uncertainty avoidance measures the extent to which members of an organizational society feel threatened by and try to avoid future uncertainty or ambiguous situations. The index formula is:
UAI = +25m(13) +20m(16) –50m(18) –15m(19) +120
Sudan Uncertainty Avoidance Index = 25(2.8)+20(3.2) - 50(3.1)-15(2.2)+120= 66

According to the results shown in this study the Uncertainty avoidance index for Sudan is (66) which more or less similar to Arabs and African values. In following the cultural values of harmony and avoiding uncertainties in life, respondents in Sudan make relatively safer and less risky decisions. They also keep in mind that decisions are aimed at promoting group cooperation and harmony. They have to be direct and straight forward in explaining their decisions and their outcomes.

**Long Term Orientation Index:** Long term orientation is the opposite of short term orientation. It is based on Confucius’ teachings of daily pragmatic rules in ethics with no religious content, combining values and virtues, that is, perseverance and thrift. Short term orientation stands for a society, which fosters virtues related to the past and present, in particular, respect for tradition, preservation of “face”, and fulfilling social obligations (Hofstede, 2001, 2005). Long Term Orientation stands for a society that fosters virtues oriented towards future rewards, in particular, adaptation, perseverance, and thrift.

Short term orientation stands for a society that fosters virtues related to the past and present, in particular, respect for tradition, preservation of “face”, and fulfilling social obligations. The formula is:

LTO = + 45m(09) – 30m(10) – 35m(11) + 15m(12) + 67
Sudan Long/short Term Orientation index=45(2.1)-30(3.1)- 35(1.6)+15(2)+67= 43

The long-term orientation index in this study is (43) which considered relatively low but higher than that of Arabs and Africans. In Low LTO society families show more respect and tolerance for other people, show more respect for tradition, to consider status as not a major issue in relationships, and to value leisure time (Hofstede, 2001).

**Comparative analysis:** The Data in Figure 1 shows a comparative analysis of Sudanese versus Arabs, African and the world average of the national culture dimensions. These results signify several differences in the value dimension scores for Sudan compared to Arab and African countries in the region. Sudan's score for Power distance, for example, is very low (27) suggesting that Sudanese culture is very different from Hofstede's original scores for the Arab countries.

![Figure 1. Scores of National cultures of Sudan, Arabs, Africans and the World](image1)

![Figure 2. Scores of National cultures of Sudan and Arab countries](image2)
Another surprising result showed that Sudan is a more individualistic than collectivism culture of both Arabs and Africans. However, Sudan culture is somewhat similar to Arabs and Africans in being feminine, uncertainty avoidance and short term oriented. Figure 2 reflects a comparison analysis of Sudanese cultural dimensions against selected Arab countries reported on the Hofstede website. The PDI dimension for all Arab countries ranks them as countries with very high power distance compared to the very low score of Sudan which reflects low power distance cultural values. The second dimension relates to the individualism and collectivism aspects found in societies. Generally, the Arab countries have all scored towards high collectivism culture, while the Sudan score shows a high individualism culture. In view of the Arab countries of the Masculinity index, they can be seen as ranked relatively average on the construct, Sudan ranked low in this score indicating femininity culture. The sole score that Sudan shared with Arab countries is the UAI dimension, Sudan score in this dimension together with Arab countries are ranked together almost similarly. Regarding the TO dimension, all Arab States scored less than average on the construct, while Sudan attained the highest score (43).

Conclusion

The intention of this research is to empirically examine the Hofstede national cultural dimensions using VSM in the Sudanese context. The study also aims to compare Sudanese culture to the Arab and African cultural indices reported by Hofstede (1980) to see whether it is closer to Arabic speaking countries' scores or the Africans countries. The findings revealed that there are significant differences in the cultural values of Sudanese compared to both Arab and African countries score reported in Hofstede’s original study (1980). The cultural indices for Sudan in the current study are (PDI=27, IDV=79, MAS=26, UAI=66, LTO=43). These results were found to be very different from Hofstede’s original scores for the Arab countries in three dimensions. Respondents show lower scores in power distance and masculinity but high in individualism, whereas, uncertainty avoidance dimension show similar scores to Hofstede’s original scores for Arab countries. According to these results unlike Arabs and Africans Sudanese are low in power distance and high individualist. Similar results were reported in (Al Dulaimi and Bin Sailan, 2011), (Alkailani, 2012), and Fischer and Al-Issa (2012), where power distance reported a lower index than that reported by Hofstede for Arab speaking countries group. Another surprising result is the high score in individualism (79) reported in this study compared to the Arab score (38) and eastern and western African countries (20, 27). This result is consistent with the results of the high individualism score reported in the study of Fischer and Al-Issa’s (2012). This may be explained by the difference in age and education. Sudan has a young population with more than 87 percent of Sudanese are under the age of 54 years old. The results of the current study showed that Sudanese share a similar place, with varying degrees, as Arab and African with a high uncertainty avoidance index and short term oriented, which is consistent with the result of high uncertainty avoidance. These results contradict with generalization made to Sudanese culture as an “Arabic-speaking country” make by Hofstede (1980). Although Sudan shares two pillars of culture, religion and language with other Arab and Islamic countries, it has unique characteristics that warrant separate treatment. Among these unique aspects are the complete adoptions of shariah law in all social and economic life, the mix of Arab African cultures, the level of economic development, the population density and female labor force participation which might explain the differences in culture found in this study between Arabs and Sudan. Sudan is a heterogeneous society of Arabs and Africans with different ethnic groups, each with its own distinctiveness. Thus, measuring national culture dimensions is very useful for those interested in cross-cultural research and international companies as it explains the individual behavior and attitudes in relation to cultural values.

REFERENCES


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