

## INDUCTING THE DIMENSIONS OF ISLAMIC CULTURE

### *A Theoretical Building Approach and Website Information Architecture Design Application*

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**Abstract.** Research on cultural aspects of user interface has attracted ongoing research effort in the localization process for indigenous culture. Furthermore, information architecture (IA) is considered as one of the areas that has been mostly neglected in the development of Islamic genre website. In our effort towards addressing these issues, existing western culture dimensions may be used to create better understanding of Muslims. Thus, this paper adapt well-known western cultural dimensions of Hofstede and Hofstede (2005), Trompenaars (1993) and Hall (1966) to be correlated with Islamic universal values. The main objective of this paper is to reflect the theoretical building process of Islamic culture framework by using these cultural dimensions as the theoretical bases of explanation. The theoretical building process was justified by using case study research methodology on Islamic community. Initial practical design indication is also being reflected.

## 1. Introduction

### 1.1. GROWING CONCERN FOR INDIGENOUS CULTURE

The universal capabilities of interface design for the World Wide Web is still questionable due to the differences of user perception in terms of beliefs, values and attitudes (Syarif et. al., 2003). Currently, the developments on the Web are set to divorce the indigenous cultures from control of their own cultural material (Spennemann et. al., 1996). However, cultures have struggled for centuries to preserve law and standards as the Internet and on-

line information networks are presenting them with problems that defy traditional solutions (Flynn, 2001). This is because, a design for one community may be inappropriate for other community. Therefore, various studies had been conducted to personalize web interface with cultural dimensions of user (Gould *et. al.*, 2000; Hsu, 2003; Marcus *et. al.*, 1999).

## 1.2. GROWING CONCERN FOR ISLAMIC CULTURE

Islamic culture is the culture prescribed by a religion of which the cultivation of entire human race and human progress are the definite and avowed aim (Pickthall, 1972). The estimated number of Islamic genre website around 2477 (as of July 2007) and about 2 billions Muslim population with 20 percent internet penetration, warrants website designer to look into the cultural perspectives and issues related to website IA design (Wan Abdul Rahim *et. al.*, 2005). Furthermore, Muslim communities may need to configure their identities in relation to the Internet and inform themselves and others (Bunt, 2000). Thus, these provoke the manifestation of growing concern and demands on more research areas in protecting and preserving Muslim online user based on their fundamental Islamic culture values. The main objective of the study is to provide theoretical and empirical contribution to the definition of Islamic culture in the online context towards the development of IA design guideline for Islamic genre website. The breakdown of the paper is seen as the following. Section 2 discusses the case study research methodology and results. Section 3 illustrates on how this framework may be used as theoretical bases prescribing into practical IA design indication. Lastly, section 4 draws the conclusions.

## 2. Research Methodology and Results

Case study research methodology is used in this study as it is considered as part of the theoretical building process (Yin, 2003) for the Islamic culture framework. The methodology was used to collect evidence supports for the formed Islamic culture framework. We prescribe the similarity of Islamic universal values based on the cultural dimension of high uncertainty avoidance (HUA), short term orientation (STO), both masculinity (MAS) and femininity (FEM) , both individualism (IND) and collectivism (COL), high power distance (HPD), polychronics (POLY), high context (HC) and universalism (UNI). To support these presumptions, evidence supports were accumulated. The evidence were collected by qualitative interviewing with two Islamic experts as the key informants from International Institute of Islamic Thought and Civilization (ISTAC), Malaysia and web online survey with international online respondents.

## 2.1. QUALITATIVE INTERVIEWING – QUALITATIVE EVIDENCE

The descriptions of the proposed Islamic culture theoretical framework are as follows:

### 2.1.1. *High Uncertainty Avoidance (HUA)*

In general, HUA refers to societies that are uncomfortable with uncertainty and avoid taking risks (Hofstede and Hofstede, 2005). Furthermore, HUA is a belief that is more frequent on having the ultimate Truth. The difference between high and low uncertainty avoidance lies in the amount of certainty one needs about having this Truth (Hofstede and Hofstede, 2005). We prescribed the idea that Islam is HUA cultures as Islam is much concerned with Truth. In fact, Hofstede and Hofstede (2005) also gives the impression that Islam is a religion that is based on the existence of a Truth that humans can possess and share the assumption that there is absolute Truth that excludes all other truths.

### 2.1.2. *Short Term Orientation (STO)*

The fundamentalism Islam stands for STO (Hofstede and Hofstede, 2005). In general, STO stands for the fostering of virtues related to the past and present-in particular, respect for the tradition and fulfilling social obligation (Hofstede and Hofstede, 2005). Two of the similar characteristics of STO and Islam are concern with possessing the Truth and based on prior knowledge that there are universal guidelines of what is good and evil. This is because Islam's virtue came from the Truth and are focusing on wisdom from the past where fundamentalism Islam represent STO as decisions are based on the holy book (Hofstede and Hofstede, 2005).

### 2.1.3. *Masculinity (MAS) and Femininity (FEM)*

MAS refers to societies where gender roles are clearly distinct and FEM stands for societies where gender roles overlap (Hofstede and Hofstede, 2005). According to Hofstede and Hofstede (2005), Islam is considered both as tough and tender religion where justification of tough behaviour towards fellow humans also demands caring behaviour toward fellow humans. Their comparison where made on different sects in Islam. For example, Islamic Sunni, a more MAS version of faith than Shia and Iran, as Islamic country, considered as predominantly Shiite, scored FEM than the predominantly Sunnite Arab-speaking countries (Hofstede and Hofstede, 2005). Although, there are considerable differences between Sunni and Shiite Islam, the two Islamic sects of Islam however do share common traditions, beliefs and doctrines (Armanios, 2004). Furthermore, the holy book (Quran) of Muslim, noted that there is no difference whatever is made between the sexes in relation to God as both are promised the same reward for good, the same punishment for evil conduct (Pickthall, 1972).

#### *2.1.4. Individualism (IND) and Collectivism (COL)*

IND refers to cultures that have loose ties between individuals but collectivism refers to people integrated as one cohesive group (Hofstede and Hofstede, 2005). We argue that the role of Muslims falls between roles as IND and as a COL group members. This is because, Islam is based on the concept that all men form one united community without distinction of race or colour, language or culture and history (Waddy, 1976).

#### *2.1.5. High Power Distance (HPD)*

HPD suggests inequality in power distribution (Hofstede and Hofstede, 2005). Islam is HPD based on the presumption that Muslims are expected to behaves according to the rules defined by God's revelation and authoritative resources. This is because the resources of Muslims tend to be dependable and trusted as they rely back upon their holy book, prophet and authoritative sources (Mohd Nor and Siti Fatahiyah, 1999). Furthermore, Prophet Muhammad also declared that "No Arab has any superiority over a non-Arab or non-Arab has any superiority over an Arab, nor does a white man any superiority over black man or the black man any superiority over the white man" (Ibrahim, 2002). This is only one of the examples that implies the order imposed on the community by authoritative resource.

#### *2.1.6. Polychronics (POLY)*

POLY cultures are prone to multitasking and able to adapt changes to initial plan (Halls, 1966). The impression that Arab culture which is predominantly based on Islam and is often being characterized by POLY (Louadi and Everard, 2004). In this sense, we argue that Islamic culture is POLY cultures. This is also due to the multiple roles and different responsibilities of its believers as an individual and as member of the community.

#### *2.1.7. High Context (HC)*

HC dimension do not require a detailed exchange of information whereas low context require more detailed exchange of information as part of the communication (Halls, 1966). Islam is HC due to the implicit nature of information dissemination and communication based practices. For example, information dissemination involves ethics of information management that includes professionalism (Mohd Nor and Siti Fatahiyah, 1999). Furthermore, the constant use of a host of phrases among Muslims such as 'Bismillah' (with God's name) before starting any work and twenty-two symbols identified with Islam, reflect characteristics of HC community (Wan Abdul Rahim et. al., 2005).

#### *2.1.8. Universalism (UNI)*

UNI cultures emphasize on rules and procedures (Trompenaars, 1993). We also argue that good and evil acts had been defined as the Holy book of Muslim (Quran), stated no difference whatever is made between the sexes in relation to God as both gender are promised the same reward for good, the same punishment for evil conduct (Pickthall, 1972). Islam presented itself as a global and universal religion and Prophet Muhammad also emphasized this universal dimension and said that there is no difference between Muslims except how pious and good one may be (Abushouk, 2006). Based on these Islamic culture theoretical framework, evidence supports were collected by conducting qualitative interviewing with two prominent Islamic experts; Prof. Emeritus Dato' Dr. Osman Bakar (E1) and Ustaz (Dr) Muhammad Uthman El-Muhammady (E2) as shown in Table 1.

TABLE 1. Islamic Experts on Culture Dimension.

Traits	E1	E2
HUA	"Islam as explained in 'Quran' as the religion of Truth"	"..Islam is absolutely the truth with the coming of revelation.."
STO	"..that is 'Quran' teaching..you define evil with relation to good.."	"..good and evil is determined, first and foremost by the Divine will.."
MAS/FEM	".. 'quran' is both pro masculine and femininity.."	"..we give emphasize on both roles.."
IND/COL	"..preserving delicate balance between individuality and collectivism"	"..It is quite difficult as we emphasize on both.."
HPD	"..in certain areas, we have to follow what have been laid.."	"..when we deal with authority, we deal with authority.."
POLY	"Multiple. That is to be correct way"	"..we have to perform various obligations to the best manner.."
HC	"..natural symbols...sky (blue).. and 'kaabah' is ritual symbols.."	"..symbols Islam as being the natural religion is called milk.."
UNI	"..that is 'Quran' teaching..you define evil with relation to good.."	"..good and evil is determined, first and foremost by the Divine will.."

## 2.2. WEB-BASED SURVEY: QUANTITATIVE EVIDENCE

TABLE 2. Descriptive statistics of the respondent.

Measure	Items	Freq	%
Gender	Male	273	63.9
	Female	154	36.1
Age	Under 26	42	9.8
	26-35	152	35.6
	36-45	126	29.5
	Above 45	107	25.1
Region	Southeast Asia ( <i>Malaysia, Brunei, Indonesia</i> )	199	46.6
	Middle East ( <i>Saudi Arabia, Oman, Palestine, Jordan, Iran, Turkey, United Arab Emirates, Qatar, Pakistan, Tajikistan, Iraq, Bahrain, Yemen, Lebanon</i> )	171	40.0
	South Asia ( <i>Bangladesh, India</i> )	10	2.34
	North Africa ( <i>Egypt, Sudan, Libya, Algeria, Morocco</i> )	18	4.22
	Other ( <i>USA, NZ, Aus, UK, German, Mauritius, Nigeria</i> )	12	2.8
	Not Answered	17	3.98

	(*Assorted by <a href="http://worldatlas.com/aatlas/world.htm">http://worldatlas.com/aatlas/world.htm</a> )		
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To collect the Muslim's perception data, the web-based survey available at URL, <http://inforec.uitm.edu.my/perseus/se.ashx?s=0B7FD90F46C0BBE3> and accessible for one month from March to April 2007. Invitations were sent by emails to Muslims with at least undergraduate qualification. The emails were selected from university database in Islamic countries. Descriptive statistics as shown in Table 2 where 427 responses were accumulated. Furthermore, we adapted the culture dimensions into Islamic culture statements in the survey. From Table 3, it was determined that almost more than 50 percent of the respondents share in agreement with the cultural propositions identified in our framework.

TABLE 3. Agreement of Muslim perceptions towards the Islamic Dimension.

Dimension	Statement / Phrase	Freq	Percent
HUA	Islam is the only true religion	308	72.1
STO	'Quran', 'Hadith' and 'Sunnah' as guide	386	90.4
MAS/FEM	Exist sense of balance (e.g. male / female )	261	61.1
IND/COL	Individual and community have responsibilities	327	76.6
HPD	Different levels of authority (e.g. god at top level)	212	49.6
POLY	Individuals multiple roles (e.g. as parent, spouse)	279	65.3
HC	Wise in deliver message (e.g. preach)	247	57.8
UNI	'Quran', 'Hadith' and 'Sunnah' as guide	386	90.4

### 3. IA Design Indication

The existing IA designs that reflect cultural dimensions are accumulated alongside the Islamic culture theoretical framework of website IA. This is based on the previous study of the website IA dimensions, which are content, navigation and context (Wan Abdul Rahim et. al., 2007; Wan Abdul Rahim et. al., 2006). Hence, related design prescriptions to Islamic culture dimensions are as seen in Table 4, to reflect practical design indication.

TABLE 4. Adapted prescription to Islamic dimensions (Wan Abdul Rahim et al., 2007).

Islamic Dimension	IA Dimension	Design Prescriptions
HUA	Navigation	- Navigation schemes to prevent users from lost - Simple clear metaphor, limited choice & restricted data - Local & contextual navigational system - Include customer service, navigation local stores, local terms, free trial
	Content	- Mental model and help systems on reducing "user error" - Redundant cues (color, typography and sound, etc) to reduce ambiguity and chunk info by topic / modular. - Include tradition themes, local stores & local terms, customer service and navigation, free trials & download

UNI	Navigation	- Global & local navigational system
	Content	- Chunk information by task or topic
POLY	Navigation	- Local & contextual navigational system
	Content	- Chunk information by topic or modular
MAS/FEM	Navigation	- (MAS) Navigation oriented to exploration & control
	Content	- (MAS) Employ quizzes, games and realism themes - Clear, distinct gender role; include product effectiveness
STO	Content	- Content focused on truth & certainty of beliefs. - Rules as a source of information & credibility.
IND/COL	Navigation	- (IND) Global & customizable navigational system - (COL) Contextual navigational system
	Content	- (IND) Chunk information by task - (COL) Chunk information by modular - (COL) Include family theme, clubs or chatrooms, loyalty programs, community relations, symbols of group identity, newsletter & links to local websites
HPD	Content	- Include hierarchy info & pictures of important people with title. - Include quality assurance, awards, vision statements & appeal in pride of ownership. - Tall hierarchy in mental models - Highly structured access to information
	Context	- Significant, frequent emphasis on the social & moral order (e.g. portrayal of nationalism/religion) and symbols
HC	Navigation	- Local and contextual navigational system
	Content	- Chunk information by topic or modular - Use politeness, soft sell approach in message delivery
	Context	- Strong preference for visual - Use implicit cultural marker like visual & color - Emphasize on aesthetics value

**4. Conclusion**

The main objective of the study is to provide theoretical and empirical contributions to the definition of Islamic culture in the online context. Case study research methodology is being used in this study. We prescribe the similarity of Islamic universal values based on the cultural dimension of Hofstede and Hofstede (2005), Trompenaars (1993) and Hall (1966). To support these presumptions, evidence supports were accumulated by conducting qualitative interviewing with two Islamic experts as the key informants and web online survey with 427 international respondents. As the conclusion, the prescribe culture dimensions that share in agreement with Islamic cultural universal values, are induced. The dimensions prescribed are HUA, STO, both MAS and FEM, both IND and COL, HPD, POLY, HC and UNI. The empirical and non-empirical evidence reflected in this study are being used to support the formed Islamic culture framework. In addition, the IA design guideline is adapted into the context of Islamic culture to signify practical design indication of the formed Islamic cultural framework. However, the attempt is exploratory and still need to be empirically proven.

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