

National culture differences in project management: Comparing British and Arab project managers' perceptions of different planning areas

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Abstract

The influence of National Culture (NC) on Project Management (PM) and specifically project planning is not well understood. We report the results of an empirical study of British and Arab project managers in the United Arab Emirates (UAE). A structured survey method was used to investigate NC and the integrity of Planning processes. Differences between the Arab and British attitudes and perceptions of planning were analysed using Mann–Whitney U tests and Independent t-tests. Ratings in Scope, Time planning, Innovation/Technology, Integration, and Communication variables significantly differed between both groups, with the Arab group rating Communication higher and the British group rating the remaining variables higher. Hypothesised relationships on NC differences were supported for Scope, Time planning, Integration and Innovation/Technology. Since they rated the integrity of planning practices differently we conclude that NC influences the way a project manager understands the planning stage of the project.

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1. Introduction

1.1. PM and NC

Projects often comprise of people and organisations from different NCs such as multicultural teams, foreign managers, and international partners. A number of authors have called for more attention to be paid to the impact of NC on PM processes (Rees, 2008; Shore and Cross, 2005). For instance, Zwikael et al.'s (2005) study of NC and PM found that there were cultural differences in the intensity of planning processes and proposed that more research be carried out in other countries. Interestingly, Hodgson (2007: 224) argues that PM associations are nationally embedded and that professionalism is nationally and culturally circumscribed. Therefore, if associations such as the PMI, ASAPM (US), APM (UK), GPM (Germany) PMAJ (Japan) and

IPMA continue to pursue professional status, NC research seems even more relevant.

Recent research has begun exploring the affects of social and cultural factors on PM (Bredillet et al., 2010). The literature indicates that culture can influence a variety of PM issues including: Teams (Ochieng and Price, 2009; Binder, 2007) Leadership (de Bony, 2010; Makilouko, 2004; Yasin et al., 1997), Trust (de Bony, 2010), Communication (Ochieng and Price, 2009; Loosemore and AlMuslmani, 1999), Performance (Eriksson et al., 2002), Risk assessment (Zwikael and Ahn, 2011; Keil et al., 2000), Business negotiations (Hurn, 2007), PM deployment (Bredillet et al., 2010) and Planning (Zwikael, 2009; Zwikael et al., 2005).

The United Arab Emirates (UAE) is open to foreign companies but large and complex projects are often performed in collaboration with local partners (El-Sayegh, 2008). There are likely to be cultural differences between them and many of the construction projects in the UAE are complex, such as Dubai's Metro, and Abu Dhabi's Sheikh Zayed Mosque. PM is important to the success of these initiatives and project managers face numerous challenges (Thomas and Pinto, 1999), which include

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cultural factors such as managing multicultural teams (Milosevic, 1999; Enshassi and Burgess, 1990).

The UAE depends on expatriate workers (Enshassi and Burgess, 1990), including hired labour from other Arab countries (Yasin and Zimmerer, 1995), thus issues of NC are prevalent. The NC of this Arab “hired labour” may have an impact on project work. Likewise, the British culture should be considered since British companies are involved in many of the UAE’s projects, such as BP and Rolls Royce, and the country employs over 120,000 British expatriate workers (Salian, 2008). Project managers from different cultural backgrounds run similar kinds of projects, yet may manage them in different ways (Zwikael et al., 2005). It is worthwhile investigating differences in how projects are run by British and Arab labour. Specifically, how does the Arab NC and the British NC influence project managers’ perceptions of project planning?

1.2. *The influence of NC on PM*

Linking culture to project outcomes is problematic since there are changes in definitions (Lechler and Dvir, 2010), assessment (Cohen, 2009), and numerous factors concerned (Yasin et al., 1997). The intangibility of both concepts seems to challenge investigators (Kippenberger, 2000). Zwikael and Globerson (2006) found that industry may also affect planning ratings. Differences in industry and in profession complicate matters further. For instance, differences between the PMBoK (2004) and the APMBok (2006) in conceptualisation of the principal knowledge and processes of PM highlights professional differences in what constitutes professional PM. The US and UK have similar NCs (e.g. both individualist) but differences in depth and coverage of PM knowledge (i.e. the US PMBoK guide is close to 400 pages, whereas the UK APM guide is 200 pages and deals with a broader range of knowledge bases (Morris et al., 2006)) may reflect NC differences in the need for information.

A further problem concerns understanding the variation arising from Organisation Cultures (OCs), Project Cultures (PCs), and Individual Differences (IDs). A PC has been conceptualised as dynamic and changing over the lifetime of the temporary forms of project organisation (Van Marrewijk, 2007). Micro-level IDs are also likely to play a role in PM. The extent that project managers and their teams interact effectively with the project environment is not exclusively an issue of NC; it is influenced by IDs in a variety of PM roles and activities, including leadership (Keegan and Den Hartog, 2004). Consequently, OC and NC should be distinguished for their different levels of conceptual analysis (Pinnington, 2003).

Cultural differences may affect the performance of a project manager (Milosevic, 1999). Global project managers report that NC has an influence on PM work (Shore and Cross, 2005). Hofstede (1983) noted that the differences found between countries affect PM. He claimed that PM is individualistic since the temporary task is the main focus. Therefore, a person from a collectivist culture may experience problems created by cultural incompatibility and “lose their work identity” (Hofstede, 1983:46). The Western thinking behind PM concepts and principles has been mentioned by several authors (e.g. Burchell

and Gilden, 2008; Hofstede, 1983), each questioning the effectiveness of applying “Western thinking” to international projects.

Further, NC is based on the formation of cognitive schemas over time (Shaw, 1990), which is likely to influence PM thinking and behaviour. Milosevic (2002) found that project members have different PM schemas/scripts which are shaped by NC. For instance, leadership schemas (a good or a bad leader) and behaviour scripts (greetings) vary between cultures (Shaw, 1990). Ramaprasad and Prakash (2003) demonstrated how a lack of local knowledge inhibits effective PM. It has been argued that project managers must be acquainted with the background and culture of all international stakeholders in the project, particularly the customers, suppliers and partners (Zwikael, 2009). Problem-solving differs between cultures as some prefer to look at the whole problem before acting, whilst others prefer trial and error (Eriksson et al., 2002). Yasin et al. (1997) assert that it is beneficial for project managers to possess those competencies that are specific to the culture in which the project is undertaken. What’s more “...PM is culture-bound, which means ... members with different cultural backgrounds interpret the same PM practices differently” (Milosevic, 1999:27). Turner (1999) also argued that PM applications vary with culture.

Schneider (1995) states that those from high-context NCs attempt to gather as much detail as possible when planning, whereas low-context NCs are more efficient in selecting content. The usage of the WBS also varies across different cultures, with some insisting on many work packages (Western Europeans) and others (US) forming less detailed WBS (Milosevic, 1999). Schneider (1995) claims that some cultures “atomise” their time (act in networks and multi-task), while others “divide” their time (sequential and divided into sub-tasks). Scheduling may also differ as Milosevic (1999) revealed that African project managers view schedules as pointless since only God knows the future. They are more likely to be concerned with building sound relationships, which differs to a Western focus on punctuality. An appreciation of these cultural variations is vital since misunderstandings could lead to the collapse of the project (Milosevic, 1999). Most recently, Zwikael and Ahn (2011) found that higher levels of perceived risk and higher risk planning are found in countries characterised by high uncertainty avoidance. The level of project risk planning varied across Israel, Japan, and New Zealand due to different attitudes towards uncertainty.

According to Milosevic (1999), all cultures vary across six dimensions that were originally proposed by Kluckhohn and Strodtbeck (1961). These concern “Relationship to the Environment,” “Time Orientation,” “Nature of People,” “Activity Orientation,” “Focus on Responsibility,” and “Orientation to Space” (Milosevic, 1999). According to Kluckhohn and Strodtbeck (1961) these variables consider a relaxed or controlled approach to the environment, task priorities understood as simultaneous or sequentially one at a time, importance on the past, present, or future, human nature as fundamentally good, bad or mixed, attitudes towards activities such as concern for detail versus general impressions, assigning responsibility

to the individual, the group or transitional, and a preference for confidentiality or openness.

Later, Milosevic (2002) included Trompenaars and Hampden-Turner's (1998) Universalism/Particularism, Affectivity/Neutrality, and Specific/Diffuse dimensions, along with Hofstede's (1983) Power Distance (PD) and Uncertainty Avoidance (UA) dimensions. Trompenaars and Hampden-Turner's (1998) variables refer to rule compliant or exception-based, emotional or unemotional approach to issues and people, relationships being open/single or personal/multiple. PD considers the perceptions and preferences of leadership styles and the freedom to express oneself. UA assesses the degree to which people feel anxious when experiencing ambiguity (Hofstede and Hofstede, 2005). This concept is particularly relevant to projects due to their uncertainty.

These cultural differences could play a role in the project environment since expectations between an Arab and a British project manager may differ. For example, Monochronic cultures such as the UK encourage a time-ordered approach to life based on preparation and planning, whereas Polychronic cultures such as the Arab NC encourage simultaneous working, spontaneity, and a number of working relationships (Ramaprasad and Prakash, 2003). Research shows that frustration can arise between people of Monochronic and Polychronic cultures (Shachaf, 2008) particularly during negotiations (Hurn, 2007). The emphasis placed on being punctual may frustrate the Arab project manager or conversely a British project manager may get frustrated with a more relaxed approach to time management. A British project manager is also accustomed to a small PD so there is a preference for interdependence between leader and subordinate and members are not afraid to express their opinions (Hofstede and Hofstede, 2005). Members from large PD countries (e.g. the Arab project manager) may not assume such close relationships with subordinates but expect people to go along with what they say (Hofstede and Hofstede, 2005). British project managers are likely to spend a significant amount of time planning, whereas this can be going against fate for the Arab project manager (Loosemore and AlMuslmani, 1999). According to Gray and Larson (2002), Arab project managers' plans are less detailed and only take account of the next week or even less since other situations may take priority. Although lack of planning has been attributed as characteristic of the Arab culture (e.g. Kabasakul and Bodur, 2002), Hofstede and Hofstede (2005) suggested that high UA cultures do plan but prefer to leave it up to the experts. Similarly, Hall and Hall (1990) explain how Polychronic cultures expect less information because they have already built wide social networks that convey multiple sources of information. Relationships are very close in the Arab world and a promise is binding (Hall, 1960). However, the British prefer to be very specific when stating and agreeing terms in the contract (Hurn, 2007).

2. Literature background and justification for the survey design

From research focusing on British and Arabs NCs, several distinctions may be made (see Table 1).

2.1. The planning phase

Researchers should study NC differences in the planning stage since they have been found to play a role in project success or failure (e.g. Zwikael, 2009; Zwikael et al., 2005; Milosevic, 2002, 1999; Yasin et al., 1997; Enshassi and Burgess, 1990). Zwikael and Globerson (2006) found a relationship between the quality of planning and project success. Focusing only on the planning stage will account for behaviour changes that occur at different project phases (Zwikael and Ahn, 2011; Zwikael et al., 2005), e.g. a future-focus during planning and past-focus during project termination (Thomas and Pinto, 1999).

There is however a lack of planning models and frameworks available for use in PM (Zwikael and Globerson, 2004). Only one available measure for analysing the quality of a project's planning appears to exist, the Project Management Planning Quality (PMPQ) model (Zwikael and Globerson, 2004). In total, 33 products are included in the PMPQ model, 16 of which are planning products related to PMI's (2004) nine knowledge areas (Zwikael and Globerson, 2004). These planning products however are also covered by the APM (2006), i.e. project office, project management plan, risk management, quality management, scope management, scheduling, resource management, budget and cost management, change control, earned value management, information management and reporting, requirement management, estimating, technology management, procurement and human resource management. They are also covered by IPMA's ICB under the technical competences, i.e. project requirements and objectives, risk and opportunities, quality, project structures, scope and deliverables, time and project phases, cost and finance, changes, control and reports, and communication. The PMPQ model includes the role of the organisation which is also noted by the APM and ICB, however the present study concentrates on NC differences between British and Arab project managers. Thus, only the planning processes/products are incorporated. While the PMPQ model appears to be the only model available to assess the quality of project planning, other planning processes are discussed in the literature. These include Control Procedures (Meredith and Mantel, 2006), "Planning the Planning" (Laufer and Tucker, 1987), Information Distribution (Laufer and Tucker, 1987; Shtub et al., 2005), Establishing Evaluation Procedures (Meredith and Mantel, 2006), Risk Identification, Analysis, Response (PMI, 2004; Turner, 1999), and Establishing Quality Assurance Metrics (Shtub et al., 2005).

This study notes the importance of Innovation, Technology, and Performance Reporting. Innovation in PM has received recent attention. Hobbs et al. (2008) studied innovation in the creation of PM Offices (PMOs) which may facilitate project planning. Innovation also covers novel planning methods and techniques, including use of planning software (e.g. Primavera) to facilitate innovation.

In developing the hypotheses for this research study, all of the planning items mentioned were arranged into eight variables (see Table 2), and then related to the NC variables in the literature. The planning items were organised into variables based on the

Table 1
Evidence for Arab and British NC.

National culture/dimensions			
Environment	<u>Subjugation</u> Arab (Lane et al., 2005; Loosemore and AlMuslmani, 1999)	<u>Harmony</u>	<u>Mastery</u> British (Lane et al., 2005)
Time (scale a)	<u>Past</u> Arab (Feghali, 1997; Hurn, 2007) British (Galanti, 2008)	<u>Present</u>	<u>Future</u>
Time (scale b)	<u>Monochronic</u> British (Shachaf, 2008)	<u>Polychronic</u> Arab (Hall, 1960; Lane et al., 2005)	
Human nature	<u>Good</u> Arab (Lane et al., 2005)	<u>Mixed</u> British (Lane et al., 2005)	<u>Evil</u>
Activity	<u>Being</u> Arab (Lane et al., 2005)	<u>Controlling</u> British (Walker et al., 2003)	<u>Doing</u> British (Lane et al., 2005)
Responsibility	<u>Hierarchical</u> British (Milosevic, 1999)	<u>Group</u> Arab (Kabasakul and Bodur, 2002)	<u>Individualistic</u>
Space	<u>Public</u> Arab (Hall, 1960)	<u>Mixed</u>	<u>Private</u> British (Lane et al., 2005)
Power distance	<u>High</u> Arab (Hofstede, 1983)	<u>Medium</u> Arab (Gupta and Hanges, 2004) British (Carl et al., 2004; Gupta and Hanges, 2004)	<u>Low</u> British (Hofstede, 1983)
Uncertainty avoidance	<u>High</u> Arab (Hofstede, 1983)	<u>Medium</u>	<u>Low</u> British (Gupta and Hanges, 2004) Arab (Gupta and Hanges, 2004)
Universalism–particularism	<u>Universalist</u> British (Trompenaars and Hampden-Turner, 1998)	<u>Particularist</u> Arab (Hale and Whitlam, 1999)	
Affectivity–neutrality	<u>Affectivity</u> Arab (Loosemore and AlMuslmani, 1999)	<u>Neutrality</u> British (Milosevic, 2002)	
Specific diffuse	<u>Specific</u> British (Binder, 2007)	<u>Diffuse</u> Arab (Hale and Whitlam, 1999)	

PMI's (2004) definitions of the nine PM knowledge areas. For instance, "Planning the Planning" refers to the planning stage as a whole, i.e. the level of detail, effort, time and centralisation required (Laufer and Tucker, 1987), which is compatible with Project Integration Management since this "...is concerned with the identification, monitoring, and control of all interfaces..." (Shtub et al., 2005: 53). The Integration variable should also incorporate Evaluation Procedures and Control Procedures consistent with Meredith and Mantel's (2006) inclusion of establishing procedures to monitor, evaluate and control the project.

3. Methodology

3.1. Research design

A structured survey method was selected to assess differences in NC in PM. The questionnaire items covered specific areas of project planning and were then analysed to compare British and Arab project managers' perceptions of planning scope, time, cost, risk, quality, integration, innovation and technology, and communication.

Several questions were drawn from the PMPQ model since this is the only measure that exists for analysing the quality of a project's planning (Zwikael and Globerson, 2004). The focus of the investigation was on NC dimensions and project planning,

and a limitation of this study is that it did not aim to identify specific practices or features of PM that may be somewhat different in the UK and UAE. Unfortunately, NC researchers have constructed very long questions, particularly in the case of Kluckhohn and Strodtbeck's (1961) cultural items. Due to the impracticality of retaining such a large number of items, (i.e. causing respondent fatigue), only the Environment, Time, Activity, Power Distance (PD), and Uncertainty Avoidance (UA) variables were studied. NC dimensions examining human nature, responsibility, space, universalism/particularism, affectivity/neutrality and specific/diffuse were omitted.

We identified 12 major academic studies that provide evidence for impacts of NC (Environment, Time, Activity, PD and UA) on Project Planning. Four studies assert NC links between *Environment* and Integration (Lane et al., 2005; Loosemore and AlMuslmani, 1999); Scope, Time Planning (Lane et al., 2005; Milosevic, 2002), Cost (Lane et al., 2005; Milosevic, 1999); and Innovation/Technology (Loosemore and AlMuslmani, 1999).

Four studies assert NC links between *Time* and Integration (Hall and Hall, 1990; Lane et al., 2005), Time Planning (Lane et al., 2005; Milosevic, 1999; Walker et al., 2003); and Quality (Milosevic, 1999).

Two studies assert NC links between *Activity* and Cost (Milosevic, 1999) and Quality (Milosevic, 1999; Walker et al., 2003).

Table 2
Project planning item variables.

Integration	Scope	Time Planning	Cost	Quality	Risk	Communication	Innovation/Technology
1. Project plan PMPQ model	1. Project deliverables PMPQ model	1. Project activities PMPQ model	1. Resource planning PMPQ model	1. Quality plan PMPQ model	1. Risk plan PMPQ model	1. Communication plan PMPQ model	1. PMO Researcher
2. Control procedures Meredith and Mantel (2006) ^a	2. WBS PMPQ model	2. PERT or Gantt chart PMPQ model	2. Resource costs PMPQ model	2. Establish quality assurance metrics Shtub et al. (2005) ^a	2. Risk Id PMI (2004) ^a	2. Information distribution Laufer and Tucker (1987); Shtub et al. (2005) ^a	2. Software Researcher
3. Establish evaluation procedures Laufer and Tucker (1987); Meredith and Mantel (2006) ^a		3. Activity duration estimates PMPQ model	3. Time-phased budget PMPQ model		3. Risk analysis PMI (2004) ^a	3. Reporting performance Researcher	3. Updates Researcher
4. Planning the planning Laufer and Tucker (1987) ^a		4. Schedule development PMPQ model			4. Risk response PMI (2004) ^a		

^a Item developed by the researcher based on ideas from stated sources.

Four studies assert NC links between PD and Communication (Hofstede and Hofstede, 2005; Milosevic, 1999) and Innovation/Technology (Hofstede, 2001; Steers et al., 2008).

Four studies assert NC links between UA and Risk (Binder, 2007; Keil et al., 2000), Communication (Overby, 2005), and Innovation/Technology (Binder, 2007; Hofstede, 2001).

Our research therefore concentrates on NC where some evidence for links between NC and PM planning has been found. Based on this literature, we identified possible impacts of 6 dimensions of NC on 8 planning areas (Fig. 1).

3.1.1. Propositions and hypotheses

The following propositions and hypotheses were constructed.

Proposition 1. Scope will possibly relate to the Environment (Lane et al., 2005; Milosevic, 2002). The British Mastery orientation (Lane et al., 2005) favours a specific description of goals and activities (Lane et al., 2005), whereas Arab Subjugation orientations prefer vague definitions (Lane et al., 2005).

H1. The British sample will appraise scope planning products higher than the Arab sample.

Proposition 2. Time planning elements are expected to relate to Environment and Time (Monochronic/Polychronic) variables (Lane et al., 2005; Walker et al., 2003; Milosevic, 2002). As in Proposition 1, the British culture is Mastery-oriented, whilst the Arab culture has a Subjugation orientation (Lane et al., 2005; Loosemore and AlMuslmani, 1999). British project managers are likely to be precise and prefer orderly planning since their culture is Monochronic (Shachaf, 2008), whereas the Arab culture is Polychronic which concerns a preference for spontaneity (Hall, 1960; Lane et al., 2005).

H2. In contrast to the Arab sample, time planning products will be rated higher by the British sample.

Proposition 3. Cost is likely to be associated with the Environment and Activity variables (Lane et al., 2005; Milosevic, 1999). As well as the British Mastery nature (Lane et al., 2005), resources should be carefully considered due to a Controlling (Walker et al., 2003) or Doing (Lane et al., 2005) activity orientation. The Arab Being orientation (Lane et al., 2005; Walker et al., 2003) in contrast favours adaptability and imprecise criteria (Milosevic, 1999).

H3. British ratings for cost planning products will be higher than Arab ratings.

Proposition 4. Risk is associated with UA (Binder, 2007; Keil et al., 2000). The Arab culture has a high UA score (Hofstede, 1983), which indicates higher risk awareness (Keil et al., 2000). The opposite is true for low UA cultures (Keil et al., 2000) such as the British culture (Gupta and Hanges, 2004).

H4. The Arab sample will rate risk planning higher than the British sample.

Proposition 5. Quality is expected to be connected to Time (Past/Present/Future) (Milosevic, 1999) and Activity orientations

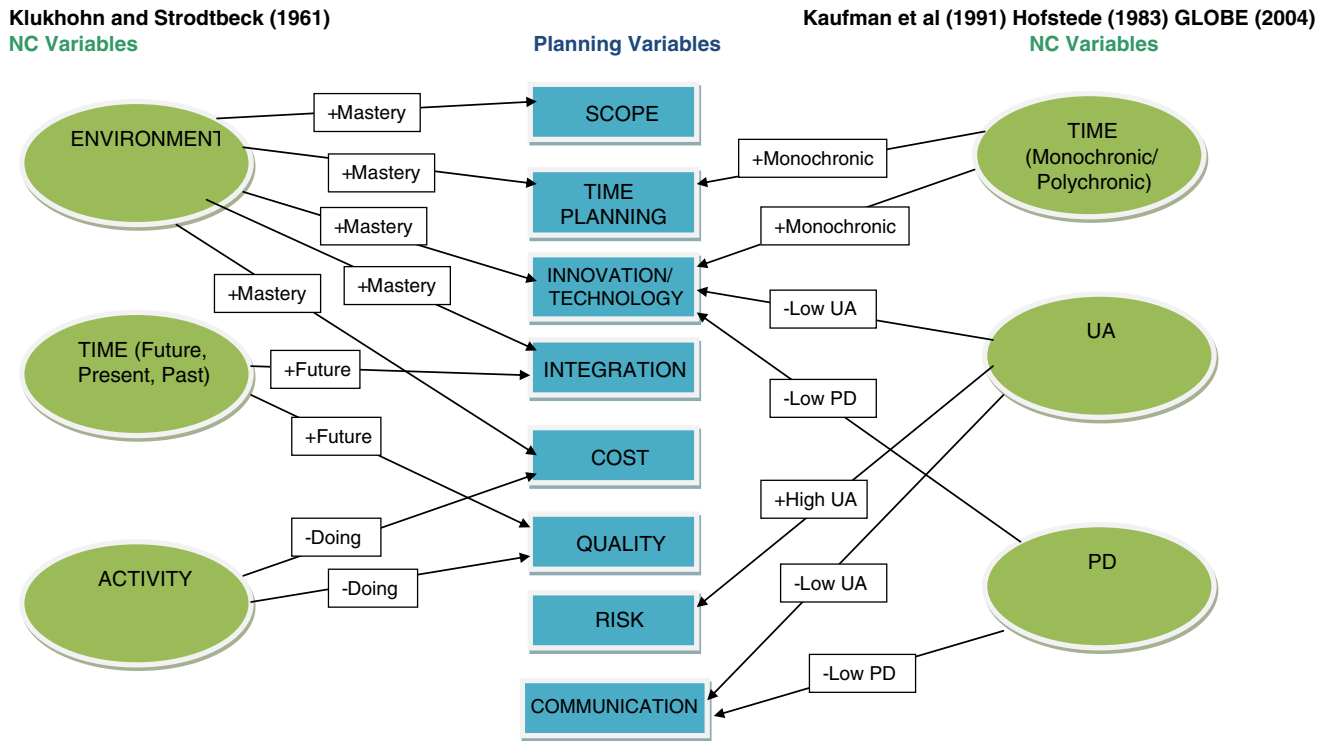


Fig. 1. Possible influences of NC on project planning.

(Walker et al., 2003; Milosevic, 1999). Both British and Arab cultures consider the Past (Galanti, 2008; Hurn, 2007; Feghali, 1997), yet the British culture is Controlling (Walker et al., 2003) or Doing (Lane et al., 2005) in its orientation which may influence the efficiency of quality measures (Milosevic, 1999). Metrics in Being orientations, such as in the Arab culture (Lane et al., 2005; Walker et al., 2003), are likely to change continuously (Milosevic, 1999).

H5. British ratings will be higher than Arab ratings for quality planning.

Proposition 6. Integration items are likely to interact with the Environment variable due to variations in project control (Lane et al., 2005; Loosemore and AlMuslmani, 1999) and the Time variable (both scales) as a result of preparation differences (Lane et al., 2005; Hall and Hall, 1990). The British have a Monochronic (Shachaf, 2008) and Mastery orientation (Lane et al., 2005), suggesting strict control and clearly defined initial planning. They also appreciate “learning from the past” (Galanti, 2008). The Arab culture likewise has a Past time orientation (Hurn, 2007; Feghali, 1997), yet a flexible and lenient approach can be anticipated given that the Arab culture has been classified as Polychronic (Lane et al., 2005; Hall, 1960) and values Subjugation to nature (Lane et al., 2005; Loosemore and AlMuslmani, 1999).

H6. In comparison to the Arab sample, the British sample will rate integration items higher.

Proposition 7. Innovation and Technology is connected to Mastery-oriented cultures (Loosemore and AlMuslmani, 1999)

and is greatest in low PD (Hofstede, 2001; Steers et al., 2008) and low UA cultures (Binder, 2007; Hofstede, 2001). The UK has lower PD (Carl et al., 2004) and UA (Gupta and Hanges, 2004) scores than the Arab culture.

H7. British ratings for Innovation and Technology items will be higher than Arab ratings.

Proposition 8. Communication is linked to UA (Overby, 2005), and PD (Lane et al., 2005). The British culture has a low UA (Hofstede, 1983) entailing information sharing but both cultures have medium PDs (Carl et al., 2004; Gupta and Hanges, 2004). Both cultures may make similar appraisals of the extent communication elements are used when project planning. Therefore, a null hypothesis is expressed.

H8. There will be no difference between Arab and British ratings for communication elements.

3.2. Pilot study

Firstly, questionnaires were piloted on 3 Arab and 3 British project managers to ensure the clarity of instructions and questions. Questionnaires were first piloted on British participants so that any change could be correctly translated before piloting the questionnaire on the Arab respondents. The questionnaire was translated into Arabic to prevent any confusion with the jargon/phrases used. When piloting the Arabic translated questionnaire, a few changes were made due to the classical and modern form of the Arabic language and there is a difficulty of translating PM phrases from English to Arabic (e.g. WBS, Primavera, MS-Project).

3.3. Study sample

A convenience sample was used to collect data. Feghali (1997) has noted the problems of effectively studying the Arab culture, i.e. Arabic should be the mother tongue language and one must consider themselves an Arab. Other nationalities and languages were excluded from analysis.

3.4. Study instrument

The final questionnaire contained the following sections and comprised a total of 63 questions (Table A: Appendix A).

3.5. Demographic and career variables

Sex, Age, Nationality, Language, Work Location, Industry, Project-based organisation, and PM qualification were measured using six different values and scales.

The Planning products referred to the 8 variables indicated in Table 2. All 25 items were measured using a five-point Likert scale (Never, Rarely, Sometimes, Frequently, Always). For these items, 16 were obtained from Zwikael and Globerson’s (2004) PMPQ model. Additional items were formulated by the researcher based on other sources of information (see Table 2). These were areas mentioned in the above literature review that were not included in the PMPQ model but thought necessary to be included since these planning processes have been noted in PM literature.

Culture contained 26 questions, relating to the NC variables, Environment, Time, Activity, PD and UA. For PD and UA variables, items were retrieved from both Hofstede (2001) and GLOBE (2004). However, two of the PD items belonging to

Hofstede’s (2001) questionnaire were omitted since they entailed a considerable amount of reading. The scales used for each item were the same as the scales used by each of the authors’ in their questionnaires. Therefore, if the original author used a 5-point scale, the same 5-point scale was employed, or if the author used a 7-point scale then this was utilised. The cultural variable of Time is measured in two ways. The first is based on Monochronic/Polychronic principles so Kaufman et al.’s (1991) Polychronic scale was used. The second approach refers to Kluckhohn and Strodtbeck’s (1961) ideas of the Past, Present and Future. This along with Kluckhohn and Strodtbeck’s (1961) Environment and Activity variables were measured using their scenario-type items. Questions however were shortened and two of their items were altered to items retrieved from Hills (2002). For instance, one of Kluckhohn and Strodtbeck’s (1961) Environment items referred to monotheism and polytheism, which is inappropriate to use in the Arab context.

3.6. Procedure

Contact with potential participants was either made directly, via email or by phone. Standardised instructions were administered on the top of each questionnaire and a research contract commenced each survey. Once completed, questionnaires were returned in-person or via email. Data gathering was achieved over a period of four weeks.

3.7. Demographics

A total number of 200 participants (100 British and 100 Arab) took part in this investigation. Table 3 reflects the sample distribution according to the demographic variables.

Table 3
Description of the sample.

	Sex			ID			Language			Work location			Industry			PM qualified			
	A	B	T	A	B	T	A	B	T	A	B	T	A	B	T	A	B	T	
Male	74	78	152																
Female	26	22	48																
British				0	100	100													
Arab				100	0	100													
English							0	100	100										
Arabic							100	0	100										
UAE										100	8	108							
UK										0	92	92							
Engineering													23	67	90				
Construction													15	24	39				
Services													36	2	38				
IT/software													3	2	5				
Communications													0	1	1				
Banking/insurance													19	0	19				
Production													1	0	1				
Media													1	3	4				
Other													2	1	3				
PM qualification																44	32	76	
No PM qualification																56	68	124	
Total	200			200			200			200			200			200			

N.B.: A = Arab, B = British, T = Total.

4. Results

4.1. Cultural orientation

Both groups differ on Environment and Time variables, with Pearson chi-square test confirming findings. Identification (Arab/British) was compared to Time responses (Past/Present/Future) and Environment (Subjugation/Harmony/Mastery). The majority of the British group have a Future and Mastery orientation and the majority of the Arab group have a Present and Subjugation orientation [Time: $X^2=31.441, p<0.001$] [Environment $X^2=52.421, p<0.001$]. Both samples answered three out of four Activity items with a Being orientation, thus non-significant ($p>0.05$).

Both NCs differ on Polychronic [$X^2=111.7, p<0.001$], PD [$X^2=54.295, p<0.001$] and UA [$X^2=91.064, p<0.001$] scales. The majority of the Arab group have a medium PD (53%), a high UA (62%) and are Polychronic (73%), whereas the British sample are Monochronic (61%), have a low PD (71%) and a medium UA (46%) or a low UA (42%).

4.2. Arab and British planning ratings

SPSS 16.0 then ran an independent samples t-test to calculate the Arab mean score and British mean score for each planning variable. The stronger and weaker areas of planning according to British and Arab mean responses show that the Arab mean score (12.74) was greater than the British mean score (10.4) for the Communication variable. It was also higher for the Risk variable but scores were similar (Arab $M=16.33$ and British $M=16.01$). British mean scores were superior for all of the other planning variables, yet mean scores were extremely close for Cost (British $M=13.05$ and Arab $M=12.78$) and Quality (British $M=8.04$

Arab $M=7.84$). The other mean scores were: Integration (British $M=17.99$, Arab $M=15.9$), Scope (British $M=9.32$, Arab $M=7.81$), Time Planning (British $M=18.72$, Arab $M=15.09$) and Innovation/Technology (British $M=13.21$, Arab $M=10.24$).

British and Arab ratings were then compared for each planning item (Fig. 2). Overall, these differences suggest that Arab project managers culturally are likely to place more emphasis on reporting performance, information distribution, and the communication management plan. In contrast, British project managers will place more emphasis on planning aspects such as use of a PMO, software, updates, control, WBS, PERT/Gantt and activity durations.

4.3. Cronbach's alpha

According to Zwikael and Globerson (2004:1551), the PMPQ model has good reliability ($\alpha 0.91$ and $\alpha 0.93$). In the current study, the Planning scale employed (25 items) was also highly reliable ($\alpha 0.889$). Kluckhohn and Strodbeck (1961) did not report any reliability values for their scales but this study found that the Alpha coefficients for the Environment scale (5 items) was $\alpha 0.818$, $\alpha 0.779$ for the Time scale (5 items) and $\alpha 0.855$ for the Activity scale (4 items). An Alpha coefficient of 0.68 was reported by Kaufman et al. (1991) and 0.76 by Lindquist and Kaufman-Scarborough (2007) for the Polychronic scale (4 items), yet a Cronbach alpha coefficient of 0.832 was found here. For the three PD items, the scale's Alpha coefficient was 0.581 and is therefore below the acceptable level of 0.7 (Pallant, 2006). Nevertheless, this would increase to $\alpha 0.753$ if item "PD 11" was deleted. Item PD11 was therefore removed. An Alpha value of 0.375 was found for the UA scale (5 items). This would only increase to $\alpha 0.591$ if item "UA 10" was deleted.

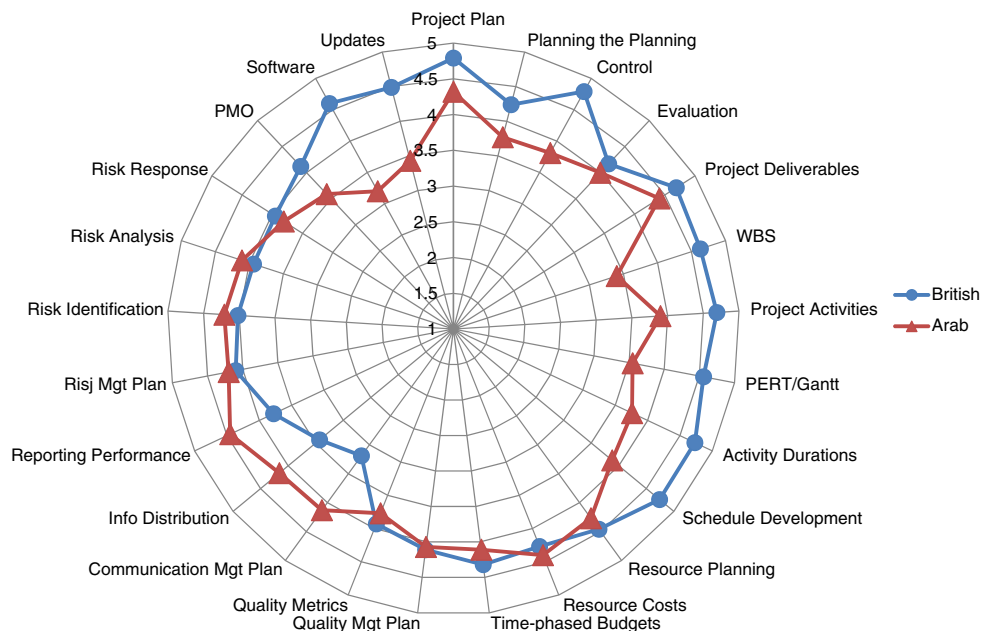


Fig. 2. Arab and British ratings for each planning item.

Consequently, item 10 was not included in further analyses, and hence the reliability of the UA scale is a limitation.

4.4. Inferential statistics—differences and correlations

Non-parametric Mann–Whitney U tests (Table 4) indicate that there was a significant difference between British (M=126.32) and Arab (M=74.68) ratings for the global variable Planning [p<0.001]. In addition, significant differences [p<0.001] were found between Arab and British groups for Scope, Time planning, Integration, Innovation/Technology, and Communication.

Parametric independent t-tests reveal the same significant differences. Therefore, magnitudes of differences were calculated using Eta squared equations. The magnitude of the difference in the means was moderate for the global Planning variable (eta squared=0.13), indicating that 13% of the variance in planning is explained by NC identification. Eta squared values for the remaining planning variables illustrates that Identification (Arab/British) explains 32% of the variance in Scope, 38% of the variance in Time planning, 17% of the variance in Integration, 35% of the variance in Innovation/Technology and 26% of the variance in Communication.

Spearman's rho correlations highlight several positive and negative correlations between NC and Planning variables (Table 4). For example, they suggest that Doing orientations are likely to rate Cost planning items higher [p<0.05].

Future orientations are likely to rate Scope, Time planning, Integration, Innovation/Technology, and the global variable Planning higher [p<0.05]. However, Past orientations are associated with high Communication scores [p<0.05].

Mastery orientations rate Scope, Time planning, Integration, Innovation/Technology, and the global variable Planning higher [p<0.001]. A negative relationship was found between Environment and Communication, signifying that Subjugation orientations rate Communication higher [p<0.01].

The Polychronic/Monochronic variable was also significantly and positively associated [p<0.001] with five planning variables. Monochronic orientations are likely to rate Scope, Time planning, Innovation/Technology, Integration and the global Planning variable higher. However, Polychronic orientations rate Communication higher [p<0.01].

High PD scores related to higher Communication and Risk ratings [p<0.01]. Low PD scores correlated with high planning ratings in Scope, Time planning, Integration, Innovation/Technology and Planning [p<0.05].

Low UA scores significantly related to high ratings in Scope, Time planning, Innovation/Technology, global Planning [p<0.001] and with Integration [p<0.05]. High UA scores related to higher Communication ratings [p<0.001].

Similar findings were obtained from carrying out Pearson r correlations. The only difference found between running Spearman's rho and Pearson r tests was that the correlation between global Planning and PD was non-significant [p>0.05].

Table 4
Inferential statistics.

Planning variables	NC identification		Mean rank	Mann Whitney U test Z	Eta-squared
	British	Arab			
Planning global	126.32	74.68		-6.315 ***	0.13
Scope	132.46	68.54		-8.069 ***	0.32
Time	135.74	65.26		-8.753 ***	0.38
Integration	121.84	79.16		-5.269 ***	0.17
Innovation/Technology	138.11	62.89		-9.274 ***	0.35
Communication	70.10	130.90		-7.509 ***	0.26

Spearman's rho correlations	NC variables					
	Activity	Time (Past, Present, Future)	Environment	Polychronic/Monochronic	PD	UA
Planning global	-.058(ns)	.161 *	.236 **	.313 ***	-.206 *	-.283 ***
Scope	-.006(ns)	.287 ***	.283 ***	.368 ***	-.369 ***	-.413 ***
Time Planning	.013(ns)	.256 ***	.280 ***	.376 ***	-.301 ***	-.395 ***
Cost	-.146 *	.038(ns)	.012(ns)	-.035(ns)	-.082(ns)	.058(ns)
Risk	-.005(ns)	-.103(ns)	-.047(ns)	-.016(ns)	.231 *	.133(ns)
Quality	-.063(ns)	-.026(ns)	.060(ns)	.030(ns)	-.008(ns)	.061(ns)
Integration	-.048(ns)	.152 *	.229 **	.204 **	-.204 *	-.167 *
Innovation/Technology	.058(ns)	.243 **	.301 ***	.452 ***	-.197 *	-.461 ***
Communication	-.077(ns)	-.148 *	-.226 **	-.216 **	.224 **	.300 ***

Note:
 ns = Non-significant at 0.05 level or above.
 * Significant at 0.05.
 ** Significant at 0.01.
 *** Significant at .001.

Interestingly, both tests show that the only planning variable that did not relate to any of the above NC variables was Quality.

5. Discussion

Results illustrate that the *hypotheses for H1, H2, H6, and H7 can be accepted* (Scope, Time-planning, Integration, and Innovation/technology). H8 (H0) “There will be no difference between Arab and British ratings for communication elements” cannot be accepted since a difference was found. No other significant differences were confirmed for Cost, Risk, or Quality variables. The higher preference of the British sample for Scope, Time planning, Integration and Innovation/Technology might relate to it being positively associated with the British NC which has a lower UA, a Mastery, and Monochronic orientation. Likewise, the higher preference for Communication in the Arab sample might relate to a higher UA and PD score and a Subjugation and Polychronic orientation.

The model derived of NC differences between Arab and British project managers suggests five significant differences in planning. The results in more detail for each of the eight hypotheses are as follows.

5.1. Scope (H1 supported)

A positive relationship between Environment and Scope was found, which implies that Mastery orientations offer higher ratings to Scope. In Proposition 1, Scope was related to Environment since scope and task definitions are often carried out on a larger scale by Mastery orientations (Lane et al., 2005; Milosevic, 2002). Scope was rated significantly higher by the Mastery British sample, which was suggested by Lane et al. (2005).

No research study has linked Time (both scales), PD and UA variables to Scope. These correlations coincide with the finding that the British sample is Future, Monochronic, has a low PD and a Low/Med UA. The two items that measured the Scope variable were “Project Deliverables” and “WBS” which concern time, i.e. project completion. Monochronic orientations may have rated these higher since they emphasise a time-ordered approach (Lane et al., 2005) and Future time orientations are said to plan for long-term results (Milosevic, 2002). Hofstede and Hofstede (2005) also imply that unplanned requests are usually dealt with more efficiently by low UA cultures.

5.2. Time planning (H2 supported)

Again, the British sample rated Time planning higher. This relates to the Scope points discussed above since Time planning also correlated positively with Environment, Time (both scales), and negatively with PD, and UA. Hence, low PD, low UA, Mastery, Future, Monochronic orientations such as the British are likely to give higher ratings.

The Arab NC was found to have a high UA, a Subjugation orientation, and is Polychronic. Subjugation orientations may not focus on time planning as this is going against fate (Loosemore and AlMuslmani, 1999), high UA cultures also

prefer to leave planning to the experts (Hofstede and Hofstede, 2005), and Polychronic cultures expect less information since they build large social networks (Hall and Hall, 1990).

5.3. Cost (H3 not supported)

No significant difference was found between both groups for Cost ratings. Cost only related to the NC variable of Activity. Since the results of this study show that both NCs have a Being orientation, it is reasonable to assume that no difference is likely to be found. Zwikael et al. (2005) also found that cost ratings did not differ between Japanese and Israeli project managers. Cost is an important issue in most projects across NCs (Zwikael and Globerson, 2006; Zwikael et al., 2005).

5.4. Risk (H4 not supported)

Both Arab and British ratings were similar for the planning variable Risk, with the Arab group presenting slightly higher ratings. It is surprising that Risk did not correlate with UA as UA is often linked to Risk issues (e.g. Zwikael and Ahn, 2011; Hofstede and Hofstede, 2005; Keil et al., 2000). A positive relationship was found between Risk and PD. In line with the results of this study, the Arab NC has a medium PD, which is therefore higher than the British low PD.

5.5. Quality (H5 not supported)

Quality ratings did not differ between the Arab and British groups. Based on ideas from Milosevic (1999) and Walker et al. (2003), Proposition 5 connected Quality to Time (Past/Present/Future) and Activity variables. Quality however was the only planning variable not to relate to any of the NC variables. This may perhaps be due to the quality items measured (the intensity of quality metrics and a quality management plan). Although both cultures gave similar ratings for these items, they may still differ in the way in which they use them. For example, Milosevic (1999) states that Present time orientations focus on corrective action (rather than preventive) and Future orientations prefer to adopt a Kaizen approach to quality.

5.6. Integration (H6 supported)

The British group rated Integration items higher than the Arab group. Integration associated with Environment and Time (both scales), like stated in Proposition 6 (Lane et al., 2005; Loosemore and AlMuslmani, 1999; Hall and Hall, 1990), but results also showed correlations with PD and UA variables. Findings are compatible with the British NC since it has a low PD, a med/low UA, a Mastery, Future, and Monochronic orientation. Mastery orientations are more likely to develop strict project control, whereas Subjugation orientations are more lenient (Loosemore and AlMuslmani, 1999). Again, a time-ordered approach is often taken by Monochronic orientations, whereas Polychronic orientations are likely to create several timelines (Lane et al., 2005; Hall and Hall, 1990).

5.7. Innovation/Technology (*H7 supported*)

The British group rated Innovation/Technology higher, which is expected since it correlated with all of the NC variables apart from Activity. Steers et al. (2008) point out that technology relates to several NC variables, for example House et al. (2004) found that technological development connects to Future orientations and Hofstede (2001) states that it relates to low PDs and high UAs. The British group have a Future orientation and a low PD, yet the Arab group have a high UA. Hofstede (2001) states that when innovations are accepted by high UA countries, innovation is strengthened and can be higher than in low UA countries. The high positive correlation between Innovation/Technology and Polychronic/Monochronic was surprising since Lindquist and Kaufman-Scarborough (2007) argue that Polychronic behaviour is more likely to accept technological innovations. There were a higher number of Arab participants in the IT/Software industry, yet the British sample still rated this variable higher. This could therefore imply that NC has a greater affect than industry/sector.

5.8. Communication (*H8 not supported*)

Communication was rated significantly higher by the Arab sample. Initially, Proposition 8 related Communication only to UA (Overby, 2005), and PD (Lane et al., 2005) and based on this no difference was predicted. However, Communication also correlated with Polychronic, Subjugation and Past orientations, which matches the Arab NC orientations found in this study. Communication ratings may have been rated higher by the Arab sample since the Arabic language is important to the Arab NC (Kabasakul and Bodur, 2002). Polychronic orientations prefer to build wide social networks (Hall and Hall, 1990) and relationships are very close (Hall, 1960). In addition, Present cultures tend to focus on what is happening now (Kluckhohn and Strodtbeck, 1961), which communication would facilitate.

5.9. Planning

Overall, a difference was found for the global Planning variable, with the British sample giving higher ratings. This may relate to a Western focus on planning (e.g. Hofstede and Hofstede, 2005; Milosevic, 1999) or it may be due to PM having a longer history in the UK (Morris et al., 2006).

5.10. Study limitations

Cohen (2009) points out that ethnicity can be a limitation of NC research. There are many different ethnic groups living in the UK and in the Arab world (Kabasakul and Bodur, 2002). Yasin and Zimmerer (1995) also found two Arab subcultures to exist. The researchers state that the first concerns the Arab Gulf states, which has a unique “conservative” culture heavily influenced by the Bedouin ethic and Islam but the second “liberal” culture consists of the rest of the Arab countries, like Jordan, Egypt, Lebanon, etc. Future research studies should investigate the role of culture at different levels of analysis such as the industry, organisation and project. The role of the industry has been

demonstrated by Zwikael and Globerson (2006) and Zwikael and Ahn (2011). Also, more attention should be paid to cross-cultural influences such as Arab project managers working extensively in UK managed firms or projects and vice versa British managers employed in Arab firms/projects.

6. Conclusion

Our research question asked whether differences in NC lead to different expectations regarding project planning. We conclude that NC influences the way in which a project manager understands the planning phase of a project. Our study supports Milosevic's (1999) argument that the same PM practices are interpreted differently and Zwikael et al.'s (2005) finding that project managers from different NCs run similar projects yet manage them in different ways. This suggests that project members may actually have different PM cognitive schema or scripts concerning the planning stage (Milosevic, 2002; Shaw, 1990). This seems important for working relationships, communication and collaboration between all project members concerning both PM planning and execution. For example, Hall (1960) argued that conflict may arise between cultures that have different appreciations of time, i.e. a delay may infer low interest to a British project manager, yet working too quickly or looking too much into the future may drive the Arab project manager away. Hurn (2007) states that deadlines are seen as a guide by the Arab NC, which may be due to a Present time orientation.

It appears from the literature that no research has been conducted linking Scope to PD, UA, and Time (both scales) variables; Integration to PD and UA variables; or Communication to Time (both scales) and Environment. This not only calls for more attention to be given to these relationships but also to investigate the planning and NC variables that were not further tested in this study, especially PM Value Management, Procurement, and HR, alongside NC dimensions of Universalism/Particularism, Specific/Diffuse, Affectivity/Neutrality, Responsibility, Human Nature and Space. Project performance should be considered by future researchers to shed light on whether the affect of NC on PM influences the achievement of project objectives such as those expressed in time, cost and quality targets.

Furthermore, investigations should study in detail the connections between NC variables and PM concepts, phases, methodologies, and performance outcomes. It is possible that a range of orientations are beneficial during different phases of any project (e.g. a Monochronic orientation during planning and a Polychronic orientation during closeout) or even for different PM methodologies (e.g. a Past time orientation for value analysis but a Future orientation for value planning). Research on Arab NC should continue and the UAE is one country that can help researchers evaluate the relevance to GCC countries of theories based on studies in western countries. Our research study has found PM differences influenced by NC in Scope, Time planning, Integration, Innovation/Technology and Communication. Other than Communication, these were all rated significantly higher by the British group. Communication was rated significantly higher by the Arab group. These findings should be compared with data gathered from other countries.

Appendix A

Table A
Questionnaire.

Please refer to the same project in all sections and to ONLY the planning phase of a recently completed project. For each of the following questions, please tick the most suitable answer using the following scale:	Never	Rarely	Sometimes	Frequently	Always										
<table border="1"> <tr> <td>The product is never utilised</td> <td>1</td> </tr> <tr> <td>The product is rarely utilised</td> <td>2</td> </tr> <tr> <td>The product is sometimes utilised</td> <td>3</td> </tr> <tr> <td>The product is frequently utilised</td> <td>4</td> </tr> <tr> <td>The product is always utilised</td> <td>5</td> </tr> </table>	The product is never utilised	1	The product is rarely utilised	2	The product is sometimes utilised	3	The product is frequently utilised	4	The product is always utilised	5					
The product is never utilised	1														
The product is rarely utilised	2														
The product is sometimes utilised	3														
The product is frequently utilised	4														
The product is always utilised	5														
Planning Products															
1. Project Plan [e.g. the planning phase concluded with a complete document of project deliverables, activity start/end dates, roles/responsibilities etc. This would be utilised or referred to throughout the project].	1	2	3	4	5										
2. Planning the Planning [e.g. the project manager considered the amount of time to be spent on planning the project and the level of detail required].	1	2	3	4	5										
3. Control procedures [e.g. control measures/procedures were established].	1	2	3	4	5										
4. Evaluation procedures [e.g. how the project would be reviewed was decided while planning the project].	1	2	3	4	5										
5. Project Deliverables [e.g. a clear description of everything to be achieved at project completion].	1	2	3	4	5										
6. Work Breakdown Structure [e.g. a hierarchical chart of all project activities].	1	2	3	4	5										
7. Project Activities [e.g. a description of all project activities to be performed, including small and manageable components].	1	2	3	4	5										
8. PERT or Gantt Chart [e.g. a chart/timeline of project activities and their dependencies].	1	2	3	4	5										
9. Activity Duration Estimates [e.g. approximations of all activity durations].	1	2	3	4	5										
10. Schedule Development [e.g. start and finish dates for each activity].	1	2	3	4	5										
11. Resource Planning [e.g. the amount and the type of resources required for each project activity].	1	2	3	4	5										
12. Resource Costs [e.g. cost estimates for each resource].	1	2	3	4	5										
13. Time-phased Budget [e.g. project cost over time, such as monthly project cost].	1	2	3	4	5										
14. Quality Management Plan [e.g. a document describing the implementation of quality policy].	1	2	3	4	5										
15. Quality Metrics [e.g. stated requirements such as quality checklists, metrics, and operational definitions are developed so that final project outcomes can be evaluated].	1	2	3	4	5										
16. Communication Management Plan [e.g. a document describing how to gather and store information].	1	2	3	4	5										
17. Information Distribution [e.g. information was communicated to the necessary employees from other departments].	1	2	3	4	5										
18. Reporting Performance [e.g. the team were informed of how to report performance/progress and who they should report it to].	1	2	3	4	5										
19. Risk Management Plan [e.g. a document describing inherent risks that may disrupt the project].	1	2	3	4	5										
20. Risk identification [e.g. everyone involved in the project took part in identifying risks].	1	2	3	4	5										
21. Risk Analysis [e.g. risk severity and prioritisation was assessed].	1	2	3	4	5										
22. Risk Response [e.g. a response plan and contingency plans were prepared].	1	2	3	4	5										
23. Project Management Office [e.g. a project office exists, which facilitated the project manager during the planning stage].	1	2	3	4	5										
24. Software [e.g. project management software, like MS-Project or Primavera was used].	1	2	3	4	5										
25. Updates [e.g. the project used up-to-date tools, techniques and procedures].	1	2	3	4	5										
Please indicate the degree to which you agree or disagree with the following statements on a 1-5 scale: [5-Strongly Agree, 4-Agree, 3-Undecided, 2-Disagree, 1-Strongly Disagree]															
1. Company rules should not be broken, even when the employee thinks it is in the company's best interest.															
2. I do not like to juggle several activities at the same time.															
3. People should not try to do many things at once															
4. When I sit down at my desk I work on one project at a time															
5. I am comfortable doing several things at the same time															

(continued on next page)

Table A (continued)

Please indicate the degree to which you agree or disagree with the following statements on a 1-7 point scale.

6. I believe that followers should:

1		3		5		7
Obey their boss without question						Question their boss when in disagreement

7. I believe that power should be:

1		3		5		7
Concentrated at the top						Shared throughout the society

8. I believe that orderliness and consistency should be stressed, even at the expense of experimentation and innovation:

1		3		5		7
Strongly Agree						Strongly Disagree

9. I believe that societal requirements and instructions should be spelled out in detail so citizens know what they are expected to do:

1		3		5		7
Strongly Agree						Strongly Disagree

Please answer the following questions:

10. How long do you think you will work for this company?

- 2 years at the most
- 2-5 years
- More than 5 years (but I will probably leave before I retire)
- Until I retire

11. How frequently in your experience are employees afraid to express disagreement with their managers?
[5-Very seldom, 4-Seldom, 3-Sometimes, 2-Frequently, 1-Very often]

12. How often do you feel nervous or tense at work?
[5-Never, 4-Seldom, 3-Sometimes, 2-Usually, 1-Always]

For each of the following questions, please tick (✓) the scenario/option you MOST Agree with:

13. I think it would be best to work for an employer who:

- A. is fair in appreciation of hard work. A high salary is provided but workers are not allowed to take the odd day off for fun.
- B. is not as firm as in A. He/she allows workers a day or two off for fun but only provides an average salary.

14. I prefer to:

- A. getting things done (accomplishments). I like to see results and think they are worth working for.
- B. enjoy life as I go along even if I don't always get much done. I like to be left alone to think/act in ways that best suit me.

15. It's best for people to:

- A. Work the basic hours so they have extra time for social events/occasions.
- B. work extra time but at the cost of social time/events.

16. When I am not working, I like to spend time:

- A. learning or trying out things which will help me in my work.
- B. talking, listening, laughing and so on with my relatives/friends.

Table A (continued)

17. Children should be brought up to:
- A. understand the traditions of the past. The old ways are the best.
 - B. understand some of the old ways but take on new ways that will help them along in the world of today.
 - C. learn things that will make them find new ways of doing things to replace the old.
18. In comparison to the family of my mother/father/relatives, I expect my family:
- A. to be better off in the future if we work hard and plan right. Things usually get better for people who really try.
 - B. to be about the same. The best way is to work hard and plan ways to keep our traditions.
 - C. I don't know whether my family will be better off, the same, or worse off. One can never really tell how things will be.
19. Attention should focus on:
- A. what is happening now. The past has gone but the future is too uncertain to count on.
 - B. the past (traditional ways). Change will make things worse.
 - C. the ways of the future. Change will create improvements in the long run.
20. I agree that:
- A. new ways are usually better than old ones. Things should be kept moving ahead.
 - B. the old ways should be kept.
 - C. its easier to accept some changes as they come along.
21. When I send money for use overseas I think it should be spent to:
- A. make a better life for the future.
 - B. make a better life for now.
 - C. keep the old ways and customs alive.
22. Natural hazards (e.g. drought, earthquakes, floods, etc):
- A. cannot be prevented by man. We all have to learn to take the bad with the good.
 - B. can be prevented by man by finding new ways of doing things.
 - C. can be prevented by living in harmony with the forces of nature.
23. If I was to plant flowers, I would:
- A. try to keep in harmony with the forces of nature that has the most effect on the way flowersturn out.
 - B. work sufficiently but not more than necessary. Things will depend on the weather conditions so nothing extra that people do could change things much.
 - C. make use of all new scientific ideas.
24. With regard to weather conditions, I believe that:
- A. people have never controlled the rain, wind, and other natural conditions and probably never will.
 - B. it is an individual's job to find ways to overcome such conditions just as they have overcome so many things.
 - C. we should live in harmony with the earth (keep the earth in good condition) so that everything will go along well.
25. It is my belief that:
- A. every person has a set time to live and when that time comes it just comes.
 - B. people will live longer since doctors and others are discovering new medicines, vaccinations, etc.
 - C. people will live longer if they act in accordance to the plan that aims to keep all living things moving together.
26. When I get sick I believe:
- A. doctors will be able to find a way to cure it.
 - B. I should live in a way to help avoid sickness.
 - C. I cannot do much about it and just have to accept it.

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