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The relationship between organizational culture and performance in acute hospitals

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A B S T R A C T

This paper examines the relationship between senior management team culture and organizational performance in English acute hospitals (NHS Trusts) over three time periods between 2001/2002 and 2007/2008. We use a validated culture rating instrument, the Competing Values Framework, to measure senior management team culture. Organizational performance is assessed using a wide range of routinely collected indicators. We examine the associations between organizational culture and performance using ordered probit and multinomial logit models. We find that organizational culture varies across hospitals and over time, and this variation is at least in part associated in consistent and predictable ways with a variety of organizational characteristics and routine measures of performance. Moreover, hospitals are moving towards more competitive culture archetypes which mirror the current policy context, though with a stronger blend of cultures. The study provides evidence for a relationship between culture and performance in hospital settings.

Introduction

Culture, with its many definitions and meanings, has always been hard to pin down (Braithwaite, Hyde, & Pope, 2010; Martin, 2002). Anthropological and sociological approaches tend to define culture as a set of attitudes, beliefs, customs, values and practices which are shared by a group (Alvesson, 2002; Ashkanasy, Wilderom, & Peterson, 2000). The group may be defined in terms of politics, geography, ethnicity, religion, or some other affiliation. The characteristics which define the group may be manifested in the form of signs, symbols, language, artefacts, oral and written tradition and other means (Brown, 1995). One of the critical functions of these manifestations of a group's culture is to establish a distinctive identity and thereby provide a means by which members of the group can differentiate themselves from other groups (Throsby, 2003).

Culture, in this view, functions as a coordinating device (Schein, 1997). Cultural differences can be interpreted in terms of differences in the beliefs people hold about the way the world works and about one another, leading to the choice of one set of strategies rather than another and thereby, sustaining one set of institutions and technology rather than another (Greif, 1994). Institutions are therefore formed and held together by the beliefs members hold about one another and the world.

Sociologists and anthropologists (Richerson & Boyd, 2005) have accumulated a wealth of evidence on the impact of culture on economic behaviour. Many institutional economists emphasize both the links from culture to beliefs and values, and from beliefs and values to economic outcomes (Guiso, Sapienza, & Zingales, 2006). Culture has been found to influence both economic preferences (Fernández & Fogli, 2005) and political preferences, and affect economic outcomes through both these channels.

Within institutional economics there has been increasing focus on the role of *organizational* cultural factors in framing economic

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decisions, shaping preferences and regulating behaviour (Hermalin, 2000; Jackson, 2009). The main foci of study are the 'habits of use' and 'institutions' that taken together form the patterns of an organization's culture. Here, institutions comprise the 'rules of the game' in a social collectivism or the 'humanly devised constraints that shape human interaction and structure incentives in human exchange' (North, 1990). Economic institutions can serve to reduce the inherent uncertainty associated with complex economic processes so that co-ordination between different actors is more likely to occur.

Institutional economic theory postulates that an organization's core values help shape its members' preference patterns and in doing so may affect economic decision-making and performance in a variety of ways (Carrillo & Gromb, 1999; Hodgson, 1996; Kreps, 1990; Smith, Mannion, & Goddard, 2003).

First, culture may impact upon *efficiency*, via embedding shared values, beliefs and norms within the organization, which in turn help shape the ways in which organizational members interact and engage with each other. Specific cultural values may be more or less conducive to (for example): effective decision-making; reporting, responding to and learning from errors; team based working; and inter-departmental synergies and creativity.

Second, culture may influence the priority accorded to *equity considerations within organizational strategy*, for example by promoting shared ethical principles of protecting vulnerable consumers, and establishing arrangements that correct for purely efficiency-seeking behaviour.

Third, culture may influence the overall *economic and social objectives* that an organization pursues. Thus, the corporate culture may be one of concern for employees and the quality of their working lives and such considerations may mitigate the importance of profit maximisation or other economic goals in the organization's objective function.

Finally, where interaction and exchange between parties is complex and difficult to monitor, corporate culture may encourage *co-operation* and relationship building among agents (intra- and inter-organizational partnership working).

There have been a number of empirical studies that have sought to identify a relationship between organizational culture and organizational performance. Indeed a clutch of populist texts dating back to the 1980s proved influential in instilling the notion that 'strong cultures', defined as "a set of norms and values that are widely shared and strongly held throughout the organization" (O'Reilly & Chatman, 1996, p. 166), are related to high performance across a range of industries (Deal & Kennedy, 1982; Denison, 1990; Peters & Waterman, 1982). This hypothesis is based on the idea that organizations benefit from having highly motivated employees dedicated to common goals. Within the literature it is possible to identify several studies that have purported to show that 'strong cultures' outperform 'weak cultures' (Chatman & Cha, 2003) and evidence suggested that 'strong' corporate cultures improved organizational performance by facilitating internal behavioural consistency (Sørensen, 2002). This work had a normative aspect in as much as mechanisms for modifying the cultures of organizations to approximate those of successful ones were widely discussed and applied in an effort to improve performance (Barney, 1986). Later work has thrown considerable doubt on whether such a simplistic causal relationship exists (Gordon & Di Tomaso, 1992; Wilson, 1992).

A number of empirical studies have sought to identify culture-performance relationships in healthcare settings. For example studies have found associations between organizational culture and the implementation of quality systems in hospitals (Shortell et al., 1995), the quality of patient-care (Rondeau & Wagar, 1998), attitudes to and satisfaction with the use of clinical information systems (Callen, Braithwaite, & Westbrook, 2007), effectiveness of provider teams and healthcare provider job satisfaction (Gifford, Zammuto, & Goodman, 2002; Goodman, Zammuto, & Gifford, 2001), outcomes of organizational structural change to clinical directorate service structures (Braithwaite et al., 2005), and patient satisfaction (Meterko, Mohr, & Young, 2004). Two studies of senior management team culture in hospitals in the UK and Canada found evidence to support a contingent relationship between dominant management cultures and a range of performance domains (Gerowitz, 1998; Gerowitz, Lemieux-Charles, Heginbothan, & Johnson, 1996). Another cross-section study of employees in Chinese public hospitals examined the relationship between organizational culture and hospital performance and found a similar contingent relationship where factors embedded in the culture (e.g. cost control) were associated with hospital performance (e.g. profitability) (Zhou, Bundorf, Chang, Huang, & Xue, 2011). Indeed, the authors have in an earlier study examined the relationship between organizational culture and performance in hospitals in a cross-section analysis (Davies, Mannion, Jacobs, Powell, & Marshall, 2007). Again, no specific causal mechanism is postulated in these studies, but taken together they support the view that specific aspects of performance are enhanced in those cultures that have closely aligned values to the performance.

There has been a dearth of empirical evidence on the longitudinal aspects of culture change and the association with performance over time. The aim of this study is to extend the previous cross-section analysis (Davies et al., 2007) by looking at changes in senior management team culture in English NHS acute hospitals over three time periods between 2001/2002 and 2007/2008. We link this to various performance measures and key characteristics of healthcare organizations to examine the relationship between culture and performance to see if organizational values deemed important within a particular dominant culture coincide with those aspects of performance at which the organization excels over time.

We use an established culture assessment instrument, the Competing Values Framework (CVF) (Quinn & Rohrbaugh, 1981), which has previously been used to assess culture in a number of health and non healthcare settings (Gifford et al., 2002; Goodman et al., 2001; Helfrich, Li, Mohr, Meterko, & Sales, 2007; Jones, DeBaca, & Yarbrough, 1997; Meterko et al., 2004; Shortell et al., 2000, 2004; Strasser, Smits, Falconer, Herrin, & Bowen, 2002). The CVF (shown in Fig. 1) differentiates organizational culture across two dimensions. One dimension differentiates an emphasis on flexibility, discretion, and dynamism from an emphasis on stability, order, and control. For example, some organizations and managers are viewed as effective if they are changing, adaptable, and transformational. Other organizations and managers are viewed as effective if they are stable, predictable, and consistent. This continuum ranges from versatility and pliability on one end to steadiness and durability on the other. The second dimension differentiates an internal orientation with a focus on integration, collaboration, and unity from an external orientation with a focus on differentiation, competition, and rivalry. For example, some organizations and managers are viewed as effective if they have harmonious internal relationships and processes. Others are judged to be effective if they successfully compete against others. This continuum ranges from cohesion and consonance on the one end to separation and independence on the other.

Using these two main dimensions, the CVF articulates four basic organizational cultural 'types' (Cameron & Freeman, 1991). The Clan culture identifies values that emphasize an internal, organic focus ('do things together'), whereas the Rational culture identifies values that emphasize external, control focus ('do things fast'). The Developmental culture identifies values that emphasize external,