Which HRM practices contribute to Service Culture?

Abstract

It is known that HRM can help to develop service culture, which will in turn improve service quality. The purpose of this article is to determine the relative importance of six HRM practices in terms of their impact on culture. A questionnaire survey of medium and large sized UK service businesses was conducted. The results reveal that there is a strong association between culture and the HRM practices, and that some management practices are more strongly associated with culture than others. Further research should explore the reasons why some HRM practices are more contributory to culture than others. Service businesses in pursuit of service quality should make use of these HRM practices for developing service culture in their organisations. This research has confirmed a strong association between culture and HRM practices, and also clarified the relative importance of the HRM practices in terms of their impact on culture in order to improve service quality.

Keywords: culture, HRM, services

Introduction
This article investigates the relative importance of six Human Resources Management (HRM) practices in terms of their impact on culture in order to improve service quality. In a previous study, it was found that there were, broadly speaking, seven practices which affect service quality: these encompass six HRM practices, namely, recruitment & selection, training, teamwork, empowerment, performance appraisals & reward (including measurement and recognition), communication (two-way, internal), and the seventh practice was culture (of the organisation) (Ueno, 2010). The existing literature certainly acknowledges that appropriate HRM practices will help to create and develop service culture, which in turn will improve service quality (Schneider, 1980; Schneider and Bowen, 1985, 1993; 1995; Schneider et al., 1992; Siehl, 1992; Clark, 1997; Schneider et al., 1998; Zerbe et. al., 1998; Bowen et al., 2000; Grönroos, 2007). There have been a number of studies to investigate the association between service quality and various practices including those management practices listed above. Moreover, there are conceptual discussions on the association between culture and these HRM practices, some of which have been empirically tested. However, to date, no research has attempted to compare the relative importance of the effect of HRM practices on culture.

Previous research by Ueno (2008) investigated the relationship between service quality and seven managerial practices (the six HRM practices listed above and culture of the organisation). In this paper, new analysis is conducted using the same data in order to determine the relative importance of the six HRM practices in terms of their impact on culture in order to improve service quality. This article begins by reviewing the literature on the importance of culture in terms of service quality, and shows what has been
established in the literature about how these management practices influence culture. The rest of the article then sets out in detail new findings from a questionnaire survey of UK businesses, illustrating the overall association between the six HRM practices and culture, and the ranking of the six HRM practices according to their individual strength of association with culture.

**Literature review**

A number of authors treat culture and climate interchangeably (e.g., Grönroos, 2007) while others differentiate between the two. Detailed discussion of the distinctions between culture and climate may be found in, for example, Denison (1996), Sopow (2007), Schein (2011), and Schneider et al. (2011), but the purpose of this section is purely to examine the importance of culture/climate with regard to service quality: distinguishing climate from culture is outside the scope of this research. Therefore, a range of terms including service culture (Zerbe et al., 1998), service climate (Schneider and Bowen, 1993; Clark, 1997), a culture of service excellence (Schneider et al., 1994; Blum, 1997; Chan, 2000), customer-oriented culture (Parasuraman, 1986), or service-oriented culture (Grönroos, 2007) will be used interchangeably and refer to similar attributes here.

*What is service culture, and why such culture is important?*

Culture is the employees’ belief about what their organisation regards as important and truly values (Schneider and Bowen, 1995). A strong culture will guide employees to perform in a certain way and to react to various situations in a consistent manner (Brown,
In a service context, culture is vital to the creation of a customer-focused firm (Craig and Roy, 2004; Zeithaml et al., 2009), and has been identified as a prerequisite for service organisations in pursuit of success (Parasuraman, 1986; Schneider and Bowen, 1995; Heskett et al., 1997; Hallowell et al., 2002; Skålén and Strandvik, 2005; Bowen and Pugh, 2008). This is because service businesses cannot operate by supervising employees directly. Employees are frequently operating on their own, face-to-face with customers (Schneider and Bowen, 1995). Therefore, it is simply not possible for service failures to be dealt with before reaching final customers (Zerbe et al., 1998). Moreover, customer-employee contact is not uniform and cannot be predetermined (Schneider, 1986). In other words, management do not have direct control over service employees’ behaviour (Schneider and Bowen, 1995). Yet, employees’ behaviour is critical for delivering quality services (Parasuraman, 1986). Therefore, a service culture which influences and guides employee behaviour can ensure appropriate behaviour toward customers (Siehl, 1992; Zerbe et al., 1998; Liao and Chuang, 2004; Zeithaml et al., 2009). In short, ‘service culture is fundamental to promoting service behaviour’ (Zerbe et al., 1998, p165). A service culture will exist in an organisation when everyone makes service quality the top priority and regards customer satisfaction as an everyday mission (Zeithamal et al., 2009), i.e., when an organisation becomes truly customer oriented (Beitelspacher et al., 2011).

How can service culture be developed, and how can such a culture improve service quality?
The existing culture may be resistant to change (Mosley, 2007), and transforming an organisational culture to a service culture can take time (Snape et al., 1995). Cultural change is the most commonly discussed principle of TQM (Ueno 2010), and ‘the TQM practice of cultural change…is mostly significantly affected by HRM’ (Yang, 2006, p168). Other authors also acknowledge that HRM practices are significantly associated with organisational culture (Zerbe et al., 1998; Bowen et al., 2000; Grönroos, 2007, Browning et al., 2009), and that a failure to change organisational culture can be partly due to ‘the neglect of HR policies’ (Wilkinson, 2004, p1021). Management’s HR practices which communicate standards of excellence to employees can create a service-oriented culture, and this has a direct impact on employees’ behaviour/service delivery, which in turn affects customer perceptions of the service quality which they receive (Schneider, 1980; Schneider and Bowen, 1985; 1993; 1995; Schneider et al., 1992; Siehl, 1992; Clark, 1997; Schneider et al., 1998; Zerbe et. al., 1998; Bowen et al., 2000). In other words, a culture which reinforces service values can be demonstrated through HRM practices (Siehl, 1992). Employee perceptions of HRM practices and the way employees experience a service-oriented culture are significantly reflected in customer perception of service quality (Schneider and Bowen, 1985; 1993; 1995; Moeller and Schneider, 1986; Beitelspacher et al., 2011). When employees feel well treated by management’s HR practices and their firm is strongly service-oriented, employees are likely to have less dissatisfaction; therefore, employees can devote more time to customers and in turn, customers report that they receive high quality service (Schneider, 1980; Schneider et al., 1994). The appropriate management of HR will improve service quality via the creation
of a service culture (Zerbe et al., 1998; Grönroos, 2007; Wilson et al., 2008; Zeithaml et al., 2009).

Before proceeding to the quantitative analysis, it is necessary to review briefly what has been established in the literature about the relationship between each of the HRM practices and culture. Culture here is examined purely with regard to quality/service quality.

Recruitment & selection

Recruitment & selection have been regarded as the starting point for establishing and developing a quality culture through acquiring the right staff (Snape et al., 1995; Redman and Mathews, 1998; Grönroos, 2007), or that focus on a quality-oriented culture is the desired outcome of recruitment & selection (Bowen and Lawler, 1992). This is because the types of people recruited and selected send powerful messages about an organisation’s priorities (Schneider et al., 1994) and hence can help to disseminate a cultural orientation (Wilson, 2001). A large number of staff tend to be made redundant during a cultural change initiative (Keenoy and Anthony, 1992; Grugulis and Wilkinson, 2002) so that an old culture can be broken by the bringing of new recruits into the organisation (Snape et al., 1995).

Training

Training is regarded as a prerequisite for achieving a service culture (Grönroos, 2007), and has been utilised by the service sector in order to support the development of a
service culture (Watson and D’Annunzio-Green, 1996). This is because it is a formal way of communicating to employees the desired message and of emphasising what is really important in order to create a strong service orientation (Schneider, 1986). The existing culture must be changed to a quality-oriented culture, and cultural change requires adjustments in employees’ behaviour, attitudes and working practices (Lainas, 1999). In other words, cultural change can take place by changing people’s behaviour and attitudes, and the change can be facilitated by providing training for quality (Dale and Cooper, 1992; Patel, 1994; Choppin, 1995). Through training, employees’ attitudes and behaviours towards customers can be promoted (Kelemen, 2007). When training is provided as a reinforcement of the desired behaviour, culture can be changed as a result of such training (Shook, 2010).

**Teamwork**

Co-operation between people facilitates the accomplishment of service culture (Grönroos, 2007). Teamwork is a means of supporting the willingness to deliver quality service (Berry and Parasuraman, 1992) as it strengthens the motivation of workforce (Browning et al., 2009). Moreover, teamworking spirit is the one of the vital factors of quality culture (Ali et al., 2010). In addition, teamwork can be a dissemination of good practice which also support and induct new staff (Redman and Mathews, 1998). Gallear and Ghobadian (2004) found that teamwork was a very important factor for facilitating organisational cultural change or maintaining quality culture. A well-functioning team creates a friendly, positive climate, and a lack of teamworking, on the other hand, causes
a stale climate (Macaulay and Cook, 1995). When effective, a team tends to develop employee commitment towards customer service (Tjosvold, et al., 1999).

*Empowerment*

Empowerment can be a mechanism for transforming the culture of an organisation (Davis and Stocking, 1996). There will be an important change in organisational culture due to empowerment (Cook, 1994). This is because ‘employees cannot simply be ordered to empower themselves: the opportunity for empowerment must be incorporated into the culture of the organisation’ (Bowen and Lawler, 1992 cited by Downey-Ennis et al., 2004, pp1148). Front-line staff are important sources of customer information, and are the ones who interact directly with customers on a daily basis. Therefore, front-line staff need adequate authority to use their judgement in dealing with customers (Parasuraman, 1986). This requires that autocratic and controlled culture be minimised (Downey-Ennis et al., 2004). If they are not empowered to carry out their work, a culture of service excellence will not exist (Schneider et al., 1996).

*Performance appraisals & reward (including measurement and recognition)*

Service culture can also be created and developed through expecting and rewarding service excellence (Schneider et al., 1992). Performance appraisals are used to give direction to the workforce (Nevling, 1992) by communicating organisational goals and informing employees how their performance compares with management expectations (Elmuti et al., 1992). Therefore, when organisations place service quality as their top priority, management can use performance appraisals in order to facilitate cultural change
by including service quality as one of the criteria (Chang and Sinclair, 2003). Reward and recognition can provide an example of desirable behaviour for achieving the company’s quality goals, hence encouraging employee involvement in cultural change (London and Higgot, 1997). Employees infer their organisation’s priorities through appreciating which performance and behaviour are appraised and rewarded by the management, and hence these techniques can become a major mechanism for creating a culture of service excellence (Schneider et al., 1994).

Communication (two-way internal)

Communication improves organisational culture (Lievens et al., 1999) via communicating quality concepts (Higginson and Waxler, 1994), and continuously emphasising service philosophy (Gilbert-Jamison, 2009). Moreover, communication will enable cultural change (Zerbe et al., 1998; Grönroos, 2007; Cook and Macaulay, 2010; Jorritsma and Wilderom, 2012): cultural change usually means behavioural change (McLaurin and Bell, 1991; Anjard, 1995), and people’s behaviour can be influenced by communication (Oakland, 1993). Hence, communication facilitates cultural change through its influence on employee behaviour (McLaurin and Bell, 1991; Oakland, 1993; Anjard, 1995; Zerbe et al., 1998). Watson and D’Annunzio-Green (1996), and Haynes and Fryer (2000) find that communication is one of the essential practices to support the development of a service culture.

Research issues
It is clear from the literature that each management practice has a role in developing a culture in order to improve service quality. It seems that recruitment & selection is regarded as having the most importance among the six HRM practices in terms of its impact on culture since these techniques are defined as the starting point of a quality culture (Snape et al., 1995; Redman and Mathews, 1998; Grönroos, 2007). Since the literature has not specified which of the remaining HRM practices are more influential on culture than others, this article aims at identifying the relative importance of the association between six HRM practices and culture in order to improve service quality.

**Methodology**

As stated in Ueno (2008), the data analysed in the following section was initially collected for an investigation into the relationship between service quality and seven managerial practices: the six HRM practices discussed above and culture of the organisation. In this paper, new analysis is conducted using the same data in order to identify the relative importance of the six HRM practices in terms of their impact on culture in order to improve service quality.

The strategy for data collection was by a mailed questionnaire. The FAME database (a computerised database containing company information as well as UK standard industrial classification of economic activities) was used to identify appropriate organisations. Extensive pilot testing was undertaken, and the pilot sample was analysed using exploratory factor analysis and reliability testing. A total of 2,495 questionnaires were distributed to named managers who were responsible for the promotion of service quality.
in UK businesses with 100 or more employees, and 371 useable responses were returned which made the response rate a little under 15%. The pilot responses were included in the following analysis, because although there was a reduction in the total number of question items, no changes were made to the remaining question items: the same questions were used in both the pilot survey and the main survey. In order to assess the construct validity and refine items where necessary, the total sample of 412 was evaluated with confirmatory factor analysis. See Ueno (2008) for details of the questionnaire items used in the research. Respondents come from a wide range of service businesses including advertising agencies, cleaning companies, computer & related activities, construction, distribution, education, electricity, gas, stem & hot water supply, healthcare, film & media, financial services, funeral services, hotel, restaurants, bars & catering, maintenance & repair, post & communication, real estate, recruitment agencies, renting of machinery & equipment, research & development, retail, transport, security companies, storage, travel agencies, waste management, and wholesale.

**Results and discussion**

All items on the questionnaire were tested by One-Way ANOVA (with Post Hoc Test) in order to establish that the results were not confounded by the influence of ownership of the company, type of business, size of company, the level of turnover or respondent demographics.

*The association between culture and six HRM practices*
In order to measure the strength of the overall relationship between culture and the six HRM practices, canonical correlation analysis was applied to the total sample (see Appendix A). There was a strong correlation (.948) between culture and these management practices. Function 2 was also identified as significant so summing the canonical $R^2$s of functions 1 and 2, it can be estimated that 90 per cent (.764 + .135) of the variation in culture is accounted for by these six HRM practices. The results suggest that the development of service culture depends very largely on these management practices. In order to determine the relative importance of the six HRM practices in terms of their impact on culture, canonical correlation was again applied individually for each practice. The results are brought together in the following table, and will be discussed below.

Table 1. Summary of all canonical correlations

<table>
<thead>
<tr>
<th>6 HRM practices</th>
<th>Canonical correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>.808</td>
<td>.000</td>
</tr>
<tr>
<td>Training</td>
<td>.707</td>
<td>.000</td>
</tr>
<tr>
<td>Teamwork</td>
<td>.696</td>
<td>.000</td>
</tr>
<tr>
<td>Performance appraisals &amp; reward</td>
<td>.687</td>
<td>.000</td>
</tr>
<tr>
<td>Recruitment &amp; selection</td>
<td>.633</td>
<td>.000</td>
</tr>
<tr>
<td>Empowerment</td>
<td>.559</td>
<td>.000</td>
</tr>
</tbody>
</table>

Communication

Contrary to the literature on recruitment & selection, the data revealed that communication had the strongest association with culture (.808). Although the literature on communication suggests that it is one of the essential practices which support a service culture (Watson and D’Annunzio-Green, 1996; Haynes and Fryer, 2000), it has not previously been suggested that culture and communication are so strongly associated.
It appears that cultural change requires behavioural change (McLaurin and Bell, 1991; Anjard, 1995), and employees’ behaviour can be influenced by communication (Oakland, 1993). Moreover, communication can be the basis for trust between management and employees (Zelnik, 2012). Therefore, communication seems to play the most important role among the six HRM practice in developing the culture of the organisation and in facilitating cultural change toward service excellence.

**Training**

Training is a formal way of communicating to employees the desired message and of emphasising what is really important in creating a strong service-orientation (Schneider, 1986). A strong association between culture and training (.707) may not be unexpected. Moreover, due to high staff turnover (which averaged 20% in the sample), training may have become more important in order to keep communicating with new recruits about the company’s service philosophy including its vision, mission, business objectives and service standards. Additionally, training tends to results in the reduction of staff turnover (Khan and Matlay, 2009). The results seem to be consistent with Grönroos (2007) who asserts that training is a prerequisite for achieving service culture.

**Teamwork**

The data from those respondents whose organisation adopted teamworking in their organisation (about 75% of the sample) revealed a quite strong association between culture and teamwork (.696). The results tend to suggest that teamwork will help to accomplish service culture (Grönroos, 2007). This is because teamwork can support
willingness to deliver quality services (Berry and Parasuraman, 1992) and hence can help team members to place service quality as their top priority, and this will in turn help to create a culture of service excellence. However, teamwork was not the strongest factor within the management practices. This could be because most service companies have high staff turnover often due to low pay (Schneider, 1986), and no exception to this sample, the average staff turnover was 20%. Such high staff turnover may disrupt the continuous relationships which encourage effective teambuilding (Ingram and Desombre, 1999). Nevertheless, the statistical association between culture and teamwork is highly satisfactory and demonstrate a clear linkage between them.

**Performance appraisals & reward**

There is another quite strong association between culture and performance appraisals & reward (.687). However, these techniques are not the most influential factor among the six HRM practices in terms of their impact on culture. This could be because quality measurement in the service sector is regarded as notoriously problematic due to the nature of service characteristics (Cowling and Newman, 1995; Silvestro, 1998; Singh and Deshmuch, 1999), and hence not all service businesses may have adopted performance appraisals & reward for front-line staff. Moreover, some organisations may have placed more emphasis on financial measures rather than quality (Chang and Sinclair, 2003). This could have affected the association. Nonetheless, the results suggest a clear connection between these techniques and culture so that culture can be shaped by the areas where performance is appraised and rewarded. Hence, service culture can be created and developed by expecting and rewarding service excellence to some degree.
**Recruitment & selection**

There is a moderate association between culture and recruitment & selection (.633). Despite the fact that recruitment & selection of front-line staff have been regarded as the first requirement in establishing a quality culture (Snape et al., 1995; Redman and Mathews, 1998; Grönroos, 2007), the association between culture and recruitment & selection appeared as the second weakest. Possible explanations include the fact that recruitment & selection of front-line staff can be very difficult in some service industries, which are characterised by low levels of pay, and where there is limited availability of front-line staff with the necessary knowledge and skills on the labour market (Wilson, 2001). Therefore, recruitment & selection of front-line staff may have been compromised. Moreover, high staff turnover in this sample might have affected the development of service culture when new recruits are constantly entering, and existing employees are frequently leaving a company. This could be why communication and training have the strongest and the second strongest associations with culture and hence even more important roles in the development of service culture: communicating about, and training in, service-oriented values to new recruits and to remaining employees.

**Empowerment**

The data indicate that empowerment had the least importance among the six HRM practices in terms of its impact on culture (.559). One of the reasons could be that empowerment may not have been implemented by some organisations. Empowerment of front-line staff needs management support (Randolph, 1995; Beach, 1996; Erstad, 1997)
since it involves sharing authority and responsibility between management and employees (Dale and Cooper, 1992; Kennerfalk and Klefsjo, 1995). Therefore, in organisations where management did not support or accept empowerment, front-line staff would not have been empowered. Moreover, in top-down hierarchical organisations where top management makes decisions, front-line staff feel that ‘they do not have right and enough information and skills’ to take responsibility (Arsić et al., 2012). In this case, a culture of service excellence will not exist (Schneider et al., 1996). This may have caused the lower association between empowerment and culture.

**Conclusion and areas for further research**

The purpose of this article is to determine the relative importance of the association between six HRM practices and culture in order to improve service quality. A number of authors have previously discussed aspects of the association between culture and the areas covered in these management practices (Bowen and Lawler, 1992; Dale and Cooper, 1992; Cook, 1994; Lashley and McGoldrick, 1994; Macaulay and Cook, 1995; Zerbe et al., 1998; Lainas, 1999; Lievens et al., 1999; Bowen et al., 2000; Grönroos, 2007). However, to date, there has been no academic research which examines the overall strength of the association, or clarifying the relative importance of these management practices in terms of their impact on culture. Moreover, the literature does not specify which of these HRM practices were more important than others.

In empirical analysis based on the data from a questionnaire survey, it was found that culture and these management practices were all significantly associated, and the relative
importance of the association between six HRM practices and culture was also
determined. It was expected that recruitment & selection might have the most importance
for culture among these management practices as these practices have been argued to be
the first requirement in establishing a quality culture (Snape et al., 1995; Redman and
Mathews, 1998; Grönroos, 2007). However, the data indicated that recruitment &
selection were not the strongest factors in establishing a quality culture. Among the six
HRM practices, the most strongly associated with culture was in fact found to be
communication. Although the literature on communication suggests that it is one of the
essential practices which support service culture (Watson and D’Annunzio-Green, 1996;
Haynes and Fryer, 2000), it has not previously been suggested that culture and
communication are so strongly associated. The strength of the associations between, on
the one hand, culture, and on the other hand, training, teamwork, and performance
appraisals & reward were very similar. Since the literature does not specify which of the
practices were more important in achieving a quality-oriented culture, the similar strength
of these associations with culture may not be unexpected. Although empowerment was
found to be the least influential to culture among the six HRM practices, the association
was moderate. Hence, when front-line staff are equipped with the necessary authority,
empowerment could affect the development of a service culture to some extent.
Exploring the reasons why some HRM practices are more influential to culture than
others, is an important part of the agenda for further research. These areas could be
investigated further via in-depth interviews.

Managerial implications
This article has clarified the relative importance of the six HRM practices in terms of their impact on culture, and provides several important lessons for managers in service businesses in pursuit of service quality. Since communication is found to be the most prominent practice in influencing culture, service organisations should adopt a range of communication methods to inspire and constantly reinforce their employees’ service-orientation. Training is also found to have a strong association with culture as it is vital not only for acquiring new skills and knowledge but also communicating the company’s service philosophy. Employees may infer their company’s priorities from the areas for which training is provided. Due to the clear linkage between teamwork and culture, service organisations should encourage teamworking in order to support the willingness to deliver quality service. Employees tend to prioritise their performance in areas assessed by their company. If a company wants service quality to be employees’ first priority, then that is the area which the company needs to appraise and reward. In companies which have high staff turnover, or have difficulty in recruiting suitable personnel, communication of service philosophy and provision of service training to existing and new employees becomes even more important. Empowerment can help to create and develop a service culture if front-line staff are the given necessary authority. Elimination of hierarchy (Ashness and Lashley, 1995), and education and training of management (Ripley and Ripley, 1992) might help the delegation of authority between management and front-line staff. The six HRM practices help to create and develop service culture which in turn improves service quality.
## Appendix A: Canonical correlation between culture and six HRM practices

<table>
<thead>
<tr>
<th>Management practices</th>
<th>Cross loadings</th>
<th>Set 2 Cross loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Function 1</td>
<td>Function 2</td>
</tr>
<tr>
<td>Recruitment &amp; Selection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality conscious</td>
<td>-0.545</td>
<td>-0.24</td>
</tr>
<tr>
<td>Formality and structure</td>
<td>-0.408</td>
<td>0.58</td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer focus</td>
<td>-0.642</td>
<td>0.89</td>
</tr>
<tr>
<td>Standardised training</td>
<td>-0.398</td>
<td>0.14</td>
</tr>
<tr>
<td>Cascade training</td>
<td>-0.540</td>
<td>0.017</td>
</tr>
<tr>
<td>Teamwork*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Team benefits</td>
<td>-0.553</td>
<td>0.57</td>
</tr>
<tr>
<td>Team support</td>
<td>-0.674</td>
<td>0.004</td>
</tr>
<tr>
<td>Individuals as well as teams</td>
<td>-0.574</td>
<td>0.085</td>
</tr>
<tr>
<td>Empowerment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delegation</td>
<td>-0.560</td>
<td>0.018</td>
</tr>
<tr>
<td>Freedom of action</td>
<td>-0.312</td>
<td>0.016</td>
</tr>
<tr>
<td>Performance appraisals &amp; reward</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Performance appraisals for facilitation</td>
<td>-0.433</td>
<td>0.015</td>
</tr>
<tr>
<td>Performance appraisals as feedback</td>
<td>-0.525</td>
<td>0.088</td>
</tr>
<tr>
<td>Reward as an encouragement for good performance</td>
<td>-0.494</td>
<td>0.042</td>
</tr>
<tr>
<td>Reward for individual and teams to improve quality</td>
<td>-0.631</td>
<td>0.087</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall communication</td>
<td>-0.778</td>
<td>0.025</td>
</tr>
<tr>
<td>Customer centric communication</td>
<td>-0.611</td>
<td>0.166</td>
</tr>
<tr>
<td>Canonical correlations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>.874</td>
<td>.367</td>
<td></td>
</tr>
<tr>
<td>Canonical (R^2)</td>
<td>.764*</td>
<td>.135*</td>
</tr>
</tbody>
</table>

\[ 0.764 + 0.135 = 0.899 \quad \text{sqrt} = 0.948 \text{ so that canonical correlation is 0.948} \]

* The questions on teamwork were answered by only those companies which adopted some forms of teamwork. Hence, the total number of cases for analysis was 296.

### References


Denison, D.R. (1996), ‘What is the difference between organisational culture and


