

# Detecting sub-cultures in an organisation

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## ABSTRACT

The purpose of this study was to determine whether an organisational culture questionnaire could be used to detect sub-cultures in organisations. The instrument that has been used since 1989 in various organisational culture studies was adapted and applied in an organisation. The results indicated that management processes appear to be the dimension that differs most between biographical groups. This subsequently leads to the creation of sub-cultures in the different regions, which is supported by the statistical analysis. It also appears from the analysis that the more strategic or long-term focused dimensions may have the biggest influence on the creation of sub-cultures.

## INTRODUCTION

Over the past 50 years, organisational culture has been studied from various perspectives and is regarded as central to business activities such as mergers and acquisitions, joint ventures, total quality management, organisational transformation, change, diversity and organisational performance (Buchanan & Huczynski 2004; Cooper, Cartwright & Early 2001; Martins & Martins 2003). Davidson (2003: 162) refers in her study to the research and views of a number of authors and summarises the importance of culture as follows: "These studies discovered that organisational culture seems to create a unifying force that boosts organisational performance and that it affects both employee behaviour and financial performance of the organization."

In order to synthesise and understand organisational culture, various models and instruments have been developed to measure and assess organisational culture. Typical models and quantitative assessment tools are summarised by Ashkanasy, Broadfoot & Falkus (2000: 133), according to whom three of the instruments focus on the first level of Schein's (1985) typology, namely patterns of behaviour, or the norms of behaviour, while the remaining 15 culture instruments address the second level of organisational culture, namely beliefs and values. This is a clear indication that

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researchers define their own approaches to culture assessment and conceptualise organisational culture in a way that is useful for a specific environment or organisational need.

Researchers and authors in the current millennium (Ashkanasy, Wilderom & Peterson 2000; Cooper et al. 2001; Martins, Martins & Terblanche 2004; Robbins, Odendaal & Roodt 2003) continue to emphasise the importance of organisational culture for business.

Although different approaches are used to assess organisational culture, researchers agree that organisational culture plays an important role in organisations:

- A strong culture provides shared values that ensure that everyone in the organisation is on the same track (Robbins 1996) and employees are influenced to be good citizens and ‘go along’ (Ivancevich, Konopaske & Matterson 2005).
- Culture enhances organisational commitment and increases the consistency of employee behaviour (Martins & Martins 2003).
- Organisational culture complements rational managerial tools (such as strategy, goals, tasks, technology, organisational structure, information systems and performance appraisal) by playing an indirect role in influencing behaviour (Martins et al. 2004).
- Organisational culture has a huge influence on change in organisations because change often encompasses the transformation of basic values and beliefs (Smit & Cronje 1997).
- It is assumed that culture predominantly serves two functions that contribute to organisational success or prevent it, namely internal integration and coordination (Furnham & Gunter 1993).
- Culture is regarded as the way of perceiving, thinking and feeling in relation to the group’s problems (Schein 1985).
- “Culture is manageable in terms of a culture-controlling management and follows the formulated strategy. One only has to identify the presently existing culture, that is, its components, and then change it (the culture) or them (its components) toward the desired culture, or ‘close the culture gap’” (Furnham & Gunter 1993: 71).
- Research conducted by Denison & Fisher, as quoted by Franck (2005), “clearly shows that, regardless of the size, sector, industry or age of a business, culture affects performance”.

Another important aspect of culture that researchers emphasise is the acknowledgement that culture has common properties. However, in most large organisations, there are a dominant culture and a number of sub-cultures (Robbins 2005; Deal & Kennedy 1982; Kotter & Heshett 1992). Lok & Crawford (1999) indicate in their research that “several writers have emphasised that organisational sub-cultures may

exist independently of organisation culture and that a small group may have its own distinct set of values, beliefs and attitudes”. Research by Harris & Ogbonna (1998) indicates that the different levels in an organisational hierarchy have different views of organisational culture, while Lok & Crawford (1999) found that sub-cultures have, for instance, a stronger association with commitment than organisational culture and that organisational culture and sub-cultures have different effects on individuals in the workplace. Schein (1985) also refers to subunits in an organisation that can be referred to as groups and that may develop group cultures. The existence of sub-cultures is summarised by Martins (2000) as the unique values that are shared by smaller groups of employees with the same problems, situations and experiences. Variables that play a role in the formation of sub-cultures are departmental groupings, geographical distribution, occupational categories, race groups or the influence of a specific manager. The influence of sub-cultures on employees’ behaviour can thus not be ignored in the assessment of organisational culture (Robbins 1996).

## ROLE OF QUANTITATIVE MEASUREMENT

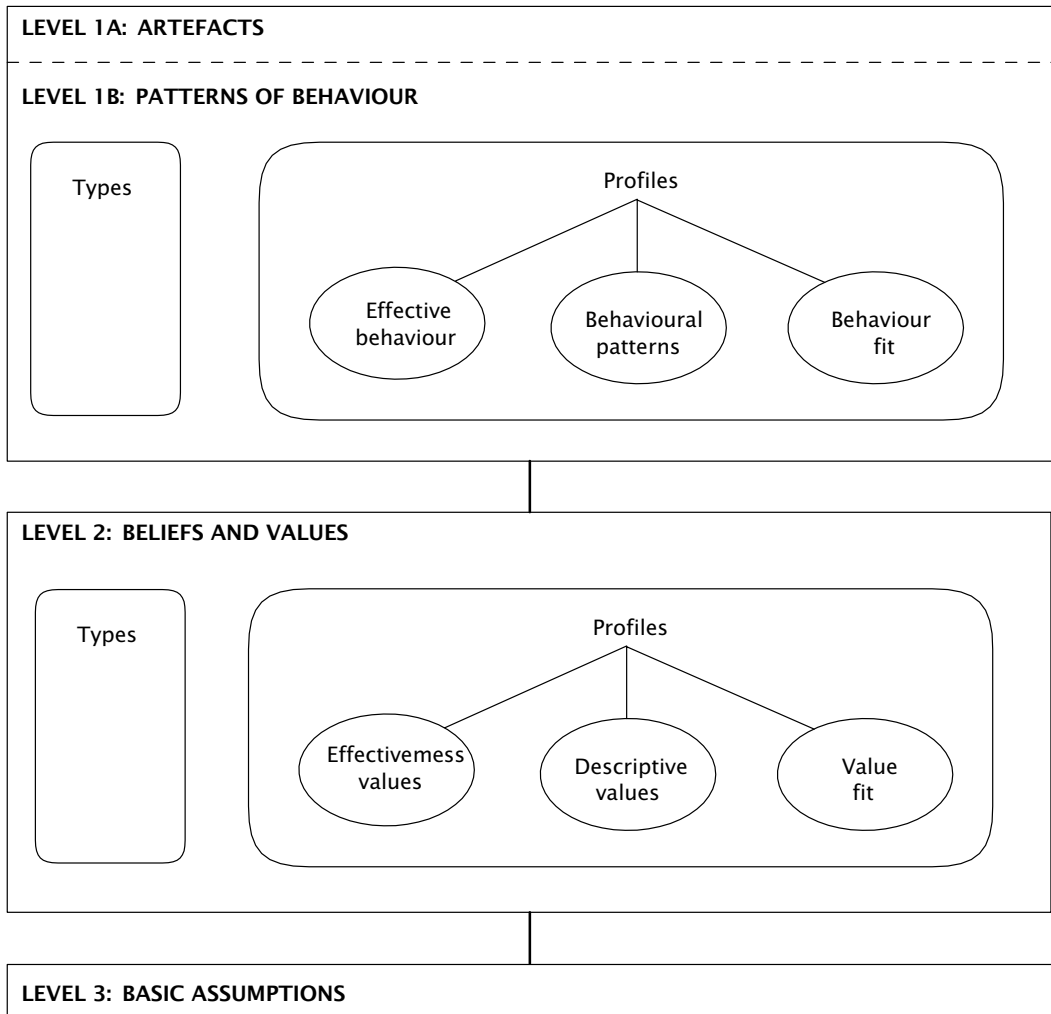
The foregoing classification of quantitative survey measures of organisational culture by Ashkanasy et al. (2000a) gives an overview of organisational survey instruments up to 1992. Ashkanasy et al. (2000a) found a lack of consensus concerning questionnaire format as well as lack of a theoretical basis for many of the instruments. This creates difficulties for assessing organisational culture as well as its impact on business and organisational performance. The focus of organisational culture research can, according to Ashkanasy et al. (2000a), be classified as either typing or profile surveys.

Typing surveys are those that classify organisations into particular taxonomies on the basis of role, achievement, power and support (Pheysey 1993), or the clan culture, adhocracy culture, hierarchical culture and market culture (Cummings & Worley 2005), while the second type of survey scale (profile surveys) focuses on a variety of beliefs and values resulting in separate scores on a number of dimensions.

Over and above these two approaches, Ashkanasy et al. (2000a) found that three of the instruments focus on the first level of Schein’s (1985) typology, namely patterns of behaviour or the norms of these patterns, while the remaining 15 instruments address the second level of Schein’s organisational culture, namely beliefs and values (see Figure 1).

Ashkanasy et al. (2000: 131) discuss the limitations and usefulness of quantitative measurements in some depth and conclude that “in summary, what is borne out by the literature, is that questionnaires can play an important role in quantitative analysis of culture because multiple methods are often complex, expensive and time consuming”. They further recommend that quantitative procedures should be used together with qualitative methods to study organisational culture and climate.

A South African-developed organisational profile survey instrument (Martins 1989) and model to describe organisational culture based on the work of Schein

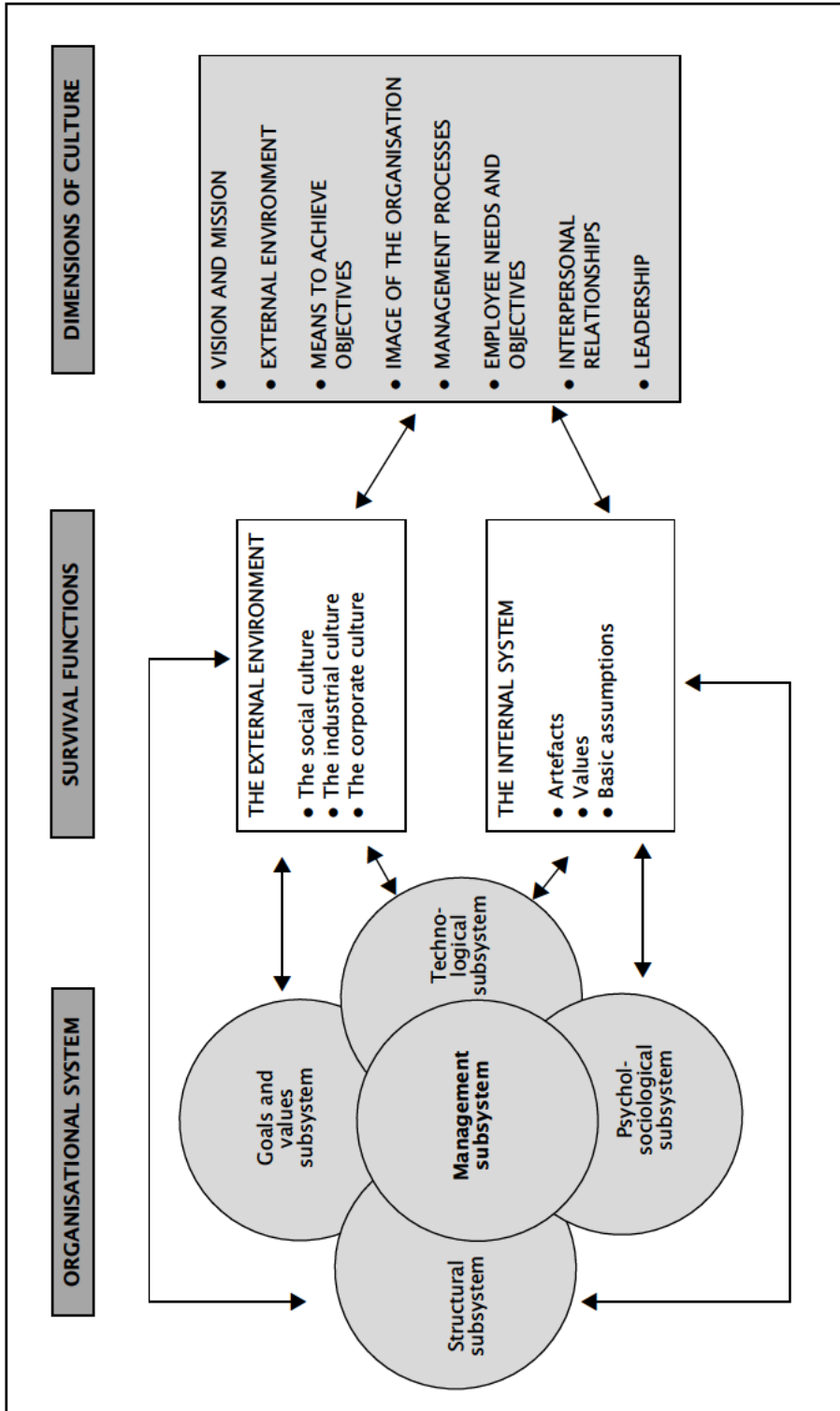


Source: Ashkanasy et al. 2000a: 134

Figure 1: Quantitative instruments operating at different levels of culture

(1985) is an approach to conceptualising organisational culture in a way that is useful to managers who are trying to understand and manage culture. A theoretical model (see Figure 2) was developed to portray organisational culture and its dimensions (Martins 1989: 14). Martins (1989: 15) defines organisational culture as follows:

Organisational culture is an integrated pattern of human behaviour, which is unique to a particular organisation and which originated as a result of the organisation's survival process and interaction with its environment. Culture directs the organisation to goal attainment. Newly appointed employees must be taught what is regarded as the correct way of behaving.



Source: Adapted from Martins (1987: 92); as adapted in 1997

Figure 2: Organisational culture model

This definition tries to capture not only the essence of the work of earlier researchers such as Schein, but also the importance of organisational culture for management.

Martins's model is based on the interaction between the organisational sub-systems (goals and values, and structural, managerial, technological and psychosociological sub-systems), the two survival functions, namely the external environment (social, industrial and corporate culture) and the internal systems (artefacts, values and basic assumptions) and the dimensions of culture. These dimensions encompass the following (Martins 1989; Martins 2000):

- Vision and mission, which determines employees' understanding of the vision, mission and values of the organisation and how these can be transformed into measurable individual and team goals and objectives
- External environment, which determines the degree of focus on external and internal customers and also employees' perceptions of the effectiveness of community involvement
- Means to achieve objectives, which determines the way in which organisational structure and support mechanisms contribute to the effectiveness of the organisation
- Image of the organisation, which focuses on the image of the organisation to the outside world and on whether it is a sought-after employer
- Management processes, which focuses on the way in which management processes take place in the organisation, including aspects such as decision-making, formulating goals, innovation processes, control processes and communication
- Employee needs and objectives, which focuses on the integration of employees' needs and objectives with those of the organisation as perceived by employees
- Interpersonal relationships, which focuses on the relationship between managers and personnel and on the management of conflict
- Leadership, which focuses on specific areas that strengthen leadership, as perceived by employees.

This a comprehensive model that encompasses all the aspects of an organisation that organisational culture could influence, and *vice versa*. This model can therefore be used to describe organisational culture in any organisation. The model has been used (Martins 1989, 2000) as the basis for identifying the determinants of organisational culture that influence the degree of creativity and innovation in organisations. The organisational culture questionnaire, based on the model and dimensions, was used to diagnose organisations quantitatively. The quantitative assessment was supported by qualitative assessments that were done by means of focus groups and interviews with a view to understanding and clarifying the deeper levels of culture. However, changing market trends, such as timeousness and cost

implications, have made it necessary sometimes to use only quantitative assessments. It is, however, important to use instruments that have been validated for the particular criteria they are required to measure. If instruments have not been validated, they may produce poor results that in turn can lead to poor decision-making on a probable culture change (Steinberg & Wagner, quoted in Franck 2005).

## PROBLEM INVESTIGATED

The research sets out to validate the reliability and validity of the South African Culture Instrument (SACI) in an organisation with eight regions in South Africa and then to determine whether any sub-cultures can be detected in the organisation.

## RESEARCH STRATEGY

### The participants

Four hundred and eighty-seven (487) employees from a listed company participated in the survey. The sample was drawn from all eight regions (see Table 1). Human resources consultants in the various regions managed the distribution and collection of the questionnaires. The names of the regions were changed to maintain organisational confidentiality.

Table 1: Responses per region

Responses	Frequency	%	Cumulative %
Region A	72	14.8	14.8
Region B	77	15.1	29.9
Region C	64	13.1	43.0
Region D	36	7.4	50.4
Region E	72	14.8	65.2
Region F	30	6.2	71.4
Region G	20	4.1	75.5
Region H	62	12.7	88.2
No Response	54	11.8	100.0

Table 2 provides an overview of the biographical groups that participated in the survey. From these results, it can be inferred that the majority of respondents belong to the job grade of 'staff' and are female and African. The distribution between full time and semi-full time respondents is almost even. Although all the questionnaires

were distributed by human resources consultants, who assured participants that their responses would be treated confidentially, a number of participants did not complete the biographical section (between 10.5% and 12.0% of the response group).

Table 2: Biographical variables

Category	Frequency	%
<b>Job grade</b>		
Executive management	2	0.4
Senior management	16	3.3
Management	78	16.0
Staff	338	69.4
No response	53	10.9
Total		100.0
<b>Gender</b>		
Male	176	36.1
Female	260	53.4
No response	51	10.5
Total		100.0
<b>Race</b>		
African	217	44.6
Coloured	63	12.9
Indian	48	9.9
White	103	21.2
No response	56	11.4
Total		100.0
<b>Employment status</b>		
Full time	206	42.3
Semi-full time	222	45.6
No response	59	12.1
Total		100.0

## The measuring instrument

The South African Culture Instrument (SACI) has been used since 1989 for various organisational culture studies. The overall reliability (Cronbach Coefficient Alpha) of the SACI was 0.933, and the internal consistency of the dimensions between 0.655 and 0.932 (Martins et al. 2004). The questionnaire as a quantitative measurement is usually supported by qualitative analysis such as focus groups and interviews. The questionnaire dimensions, as portrayed in Figure 2, give an overview of the existing



questionnaire dimensions. In collaboration with the participating company, the 89 items of the questionnaire were refined and updated to adhere to the criteria for questionnaire construction and the needs of the organisation. The purpose of this was twofold, namely to ensure the content validity of the questionnaire and to ensure that the questionnaire items were as clear as possible, since no qualitative analysis would be used to support the quantitative analysis in this case. The questionnaire employs a five-point response format ranging from strongly disagree (1), disagree (2) and uncertain (3) to agree (4) and strongly agree (5). This gave the researchers the opportunity to validate the questionnaire in an environment where no simultaneous qualitative analysis is done.

## Statistical analysis

The statistical procedures were selected for their suitability to the purpose of the study. These procedures indicate descriptive statistics, factor analysis, item analysis and analysis of variance. All calculations were done by means of the SPSS-Windows program of SPSS (Statistical Package for the Social Sciences).

## RESULTS

### Factor analysis

After careful analysis of the descriptive statistics, factor analysis was used to assess whether the instrument measures substantive constructs (construct validity). Kaiser's criterion and scree plot were employed in determining the number of factors to include (Hair, Anderson, Tatham & Black 1995). The principal factor analysis, also called principal axis factoring, was used after eight factors were postulated according to Kaiser's (1961) criterion (eigenvalues greater than unity) and scree plot. The factor matrix obtained was rotated to simple structure by means of Varimax rotation. The eight factors explain 52% of the variance in the factor space (see Table 3).

According to Hair et al. (1995), solutions of less than 60% of the total variance (and in some instances even less) are regarded as a satisfactory solution in the social sciences. The results in Table 4 give an overview of the rotated factor matrix. Only two statements (factors 3 and 4) show factor loadings of less than 0.30. After the item analysis, the inclusion or exclusion of these two items is considered. Hair et al. (1995) use the following rule of thumb to examine a factor matrix: factor loadings greater than  $\pm 0.30$  are considered to meet the minimal level; loadings of  $\pm 0.40$  are considered more important; and if the loadings are 0.50 or greater, they are considered practically significant. Hair et al. (1995) further state that for a sample size of 350 or greater, loadings of 0.30 can be regarded as having practical significance.

Table 3: Total variance explained

Factor	Initial eigenvalues			Extraction sums of squared loadings		
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %
1	1.348	7.929	7.929	.481	2.827	2.827
2	1.125	6.619	14.547	.282	1.660	4.486
3	1.108	6.519	21.066	.235	1.381	5.867
4	1.097	6.450	27.517	.215	1.266	7.133
5	1.061	6.243	33.759	.178	1.048	8.181
6	1.056	6.211	39.970	.159	.938	9.118
7	1.021	6.006	45.976	.113	.665	9.783
8	1.017	5.982	51.958	.098	.575	10.358

Table 4: Rotated factor matrix (Varimax)

	Factor							
	1	2	3	4	5	6	7	8
V83	0.785							
V85	0.770							
V80	0.769							
V82	0.767							
V88	0.762							
V86	0.756							
V81	0.754							
V87	0.725							
V84	0.719							
V89	0.655							
V90	0.575							
V79	0.494							
V42	0.471							
V67	0.452							
V66	0.446							
V54	0.400							
V71	0.381							
V65		0.572						
V64		0.533						
V74		0.527						
V73		0.515						
V72		0.512						
V63		0.494						
V61		0.478						
V75		0.467						

Table 4: (continued)

	Factor							
	1	2	3	4	5	6	7	8
V68		0.453						
V69		0.446						
V37		0.435						
V58		0.425						
V17		0.425						
V76		0.424						
V60		0.417						
V59		0.414						
V38		0.409						
V70		0.387						
V56		0.383						
V62		0.370						
V36		0.359						
V44		0.337						
V46		0.334						
V24			0.490					
V23			0.483					
V26			0.475					
V40			0.470					
V53			0.465					
V8			0.448					
V52			0.447					
V48			0.446					
V15			0.438					
V39			0.429					
V9			0.423					
V41			0.421					
V25			0.411					
V47			0.411					
V27			0.402					
V20			0.400					
V10			0.399					
V18			0.397					
V55			0.391					
V32			0.379					
V43			0.363					
V22			0.302					
V28			0.255					
V49				0.544				
V11				0.520				
V57				0.518				
V29				0.517				

Table 4: (continued)

	Factor							
	1	2	3	4	5	6	7	8
V21				0.515				
V14				0.509				
V13				0.509				
V6				0.462				
V31				0.426				
V12				0.420				
V16				0.416				
V19				0.399				
V45				0.373				
V51				0.293				
V2					0.684			
V1					0.643			
V3					0.452			
V4					0.421			
V5					0.376			
V7					0.357			
V34						0.768		
V35						0.736		
V33						0.677		
V50							0.429	
V30							0.368	
V77								0.675
V78								0.675

Using the results of the factor analysis, the factors were named as follows:

- Factor 1: Leadership, which focuses on specific attributes that strengthen leadership such as people management, leaders' competence, managing the work and personal contact with employees
- Factor 2: Means to achieve objectives, which determines the way in which organisational structure and support mechanisms (such as support services, conflict handling, physical appearance, work distribution and coordination) contribute to the effectiveness of the organisation
- Factor 3: Management processes, which focuses on the way in which management processes take place in the organisation – these processes include aspects such as management of change, setting and implementing of goals, training, delegation and performance management
- Factor 4: Employee needs and objectives, which focuses on interpersonal aspects that influence the individual, such as the remuneration systems, equal opportunities, caring, trust, career planning and participation in decision-making

- Factor 5: Vision and mission, which determines employees’ understanding of the vision, mission and values of the organisation and their informing of the strategy
- Factor 6: External environment, which determines employees’ understanding of the effectiveness of community involvement
- Factor 7: Diversity strategy, which focuses on the communication of the organisation’s employment equity or diversity strategy.

### Item and reliability analysis

Reliability is a measure of the internal consistency of the construct indicators, depicting the degree to which they “indicate the common latent unobserved construct”(Hair et al. 1995: 641). A suitable criterion for instruments in the early stages of development is regarded as between 0.5 and 0.6, although for established scales it would typically be about 0.7 (Nunnally 1967). The results of the reliability analysis in Table 5 show that seven of the eight constructs show reliability coefficients of above 0.7, which indicates high reliability. All the remaining factors portray highly satisfactory results, with coefficients ranging between 0.8021 and 0.9529. All constructs except factor 7 were retained for further analysis.

Table 5: Reliability coefficients of constructs

Cronbach’s Alpha				
Construct	Initial reliability coefficient	Number of items	Final reliability coefficient	Number of items
Factor 1	0.9529	17	0.9529	17
Factor 2	0.9235	23	0.9235	23
Factor 3	0.9346	23	0.9346	23
Factor 4	0.9074	14	0.9074	14
Factor 5	0.8136	6	0.8136	6
Factor 6	0.8484	3	0.8484	6
Factor 7	0.3947	2	-	-
Factor 8	0.8021	2	0.8021	2

### Analysis of variance/t-test

All the items in the culture questionnaire require the respondent to respond on a 5-point Likert-type scale, where a low rating (1) indicates that the respondents strongly disagree and a high rating (5) that they strongly agree. The questionnaire is then scored for each of the various dimensions as uncovered by the factor analysis. All factors are scored such that a low score indicates non-acceptance of the cultural

dimension, while a high score indicates acceptance of the cultural dimension. An objective of the study is to determine whether the SACI can be used to detect sub-cultures. The analysis of variance and t-test approaches are appropriate strategies for achieving this objective. The biographical groups such as regions, job grades, gender, race and employment status are regarded as the independent variables. The dependent variables are the cultural dimensions derived from the factor analysis. The results of the analysis of variance are displayed in Tables 6 to 10.

Table 6: ANOVA summary table for the race groups as the independent variables and the dimensions as the dependent variable

Dimension	Source	SS	df	ms	F	Sig
Factor 3: Management processes	Between groups	71.095	3	23.698	37.667	0.000*
	Within groups	268.664	427			
	Total	339.739	430			
Factor 5: Vision and mission	Between groups	15.983	3	5.328	7.515	0.000*
	Within groups	302.724	427			
	Total	318.707	430			

\*  $p < 0.01$

Table 7: ANOVA summary table for the job grades as the independent variables and the dimensions as the dependent variable

Dimension	Source	SS	df	ms	F	Sig
Factor 3: Management processes	Between groups	42.584	3	14.195	20.521	0.000*
	Within groups	297.433	430			
	Total	340.017	433			
Factor 2: Means to achieve objectives	Between groups	5.473	3	1.824	2.239	0.083***
	Within groups	350.364	430			
	Total	355.837	433			
Factor 7: Diversity strategy	Between groups	7.356	3	2.452	3.210	0.023**
	Within groups	328.523	430			
	Total	335.880	433			

\*  $p < 0.01$

\*\*  $p < 0.05$

\*\*\*  $p < 0.10$

Table 8: ANOVA summary table for the regions as the independent variables and the dimensions as the dependent variable

Dimension	Source	SS	df	ms	F	Sig
Factor 1: Leadership	Between groups	19.675	7	2.811	3.136	0.003*
	Within groups	380.940	425			
	Total	400.615	432			
Factor 2: Means to achieve objectives	Between groups	10.731	7	1.533	1.885	0.070***
	Within groups	345.687	425			
	Total	356.418	432			
Factor 3: Management processes	Between groups	91.391	7	13.056	21.967	0.000*
	Within groups	252.600	425			
	Total	343.992	432			
Factor 4: Employee needs and objectives	Between groups	10.332	7	1.476	1.870	0.073***
	Within groups	335.525	425			
	Total	345.856	432			
Factor 5: Vision and mission	Between groups	18.388	7	2.620	3.531	0.001*
	Within groups	315.346	425			
	Total	333.683	432			
Factor 6: External environment	Between groups	10.459	7	1.494	1.910	0.067***
	Within groups	332.564	425			
	Total	343.023	432			
Factor 7: Diversity strategy	Between groups	19.469	7	2.781	3.693	0.001*
	Within groups	320.114	425			
	Total	339.582	432			

\*  $p < 0.01$

\*\*  $p < 0.05$

\*\*\*  $p < 0.10$

Table 9: Summary table for gender groups as the independent variables and the dimensions as the dependent variable

Dimension	Gender	(a) Mean	t-test for equality of means		df	Sig (2-tailed)
			Std	t		
Factor 5: Vision and mission	Male	0.13164	0.81254	2.592	434	0.010**
	Female	-0.08969	0.91437			
Factor 6: External environment	Male	-0.10111	0.88096	-2.233	434	0.026**
	Female	0.09185	0.88435			

(a) Factor scores for dimension analysis were used

Equal variables assumed

\*  $p < 0.01$

\*\*  $p < 0.05$

Table 10: Summary table for employment status groups as the independent variables and the dimensions as the dependent variable

Dimension	Gender	(a) Mean	t-test for equality of means		df	Sig (2-tailed)
			Std	t		
Factor 2: Means to achieve objectives	Full time	-0.08286	0.07380	-2.112	426	0.035*
	Intermittent	0.10326	0.09440			
Factor 3: Management processes	Full time	-0.39438	0.88359	-8.162	426	0.000*
	Intermittent	0.25406	0.75892			
Factor 6: External environment	Full time	0.08326	0.88428	1.698	426	0.090***
	Intermittent	-0.06414	0.90972			

(a) Factor scores for dimension analysis were used

\*  $p < 0.01$

\*\*  $p < 0.05$

\*\*\*  $p < 0.10$

## DISCUSSION

### The culture instrument

The results of the factor and item analysis changed the original dimensions of the questionnaire somewhat. In the original analysis, eight dimensions were postulated. The current analysis postulated seven dimensions. A more detailed investigation of the content of the dimensions reveals that the dimensions on vision and mission, means to achieve objectives, management processes and external environment did not change substantially. However, the two dimensions of image of the organisation and interpersonal relationships were now integrated with leadership and employee needs and objectives. A new dimension, namely diversity strategy, was postulated. This is in line with the emphasis on employment equity/diversity in South Africa and in the participating company. Two statements that focus on employment equity and personal effort were omitted from the final analysis because of low factor and item loadings.

### Detecting sub-cultures

The analysis of variance and t-test were used to determine whether any significant differences occur between the various biographical variables in order to determine whether the SACI can be used to detect sub-cultures in an organisation. The results of the analysis of variance and t-tests (Tables 6 to 10) give an overview of the significant differences between the various biographical groups. In interpreting the tables, it is important to note that management processes appears to be the dimension



with the greatest significant difference between the biographical groups (namely, race, job grades, regions and status groups). This is an indication that management processes are applied or implemented differently in the various regions and experienced differently by various biographical groups. This leads to the creation of different sub-cultures of the way things are done. These results are further supported by the significant differences in the regions experienced in vision, mission, leadership and diversity strategy. These more strategic dimensions consequently impact on the implementation of management processes in the regions (Table 8). The impact of these 'strategic dimensions' is also apparent in the significant differences between the regions, although at a lower level of significance, in the remaining three dimensions (means to achieve objectives, employee needs and objectives and external environment).

Table 11: Summary of significant differences by dimension and biographical group

Dimensions of culture	Biographical groups	Significant difference
Vision and mission	Regions	*
	Race	*
	Gender	**
Leadership	Regions	*
Management processes	Regions	*
	Race	*
	Job grades	*
	Status groups	*
Means to achieve objectives	Regions	***
	Job grades	***
	Status groups	*
Employee needs and objectives	Regions	***
External environment	Regions	***
	Gender	**
	Status groups	***
Diversity strategy	Regions	*
	Job grades	**

\*  $p < 0.01$

\*\*  $p < 0.05$

\*\*\*  $p < 0.10$

The analysis of the biographical groups indicates that the most significant differences between the biographical groups are between the regions (Table 11). This might be explained by the fact that each region has a different manager or leader with his/her own management style, unique problems and different demographics. If the different demographics of South Africa (provinces, language groups and income groups) are considered, it is understandable that the management processes, especially their implementation, differ. According to Deal & Kennedy (1982), all companies have sub-cultures because of functional differences, gender, socio-economic and educational backgrounds. Kotter & Heshett (1992) believe that large and geographically dispersed organisations may have hundreds of different cultures. Robbins (2005) summarises these authors' understanding of culture. He believes that most large organisations have a dominant culture and numerous sets of sub-cultures. These sub-cultures tend to develop in large organisations to reflect common problems, situations or experiences. Ball & Ashbury (1998) focused on South African companies in their research and concluded that there seems to be no reason why different departments should not retain essential differences while having in common the qualities that shape the corporate culture. The results in Table 6, which indicate significant differences between the race groups for the dimensions of vision and mission and the management processes, support these findings. The job grades show significant differences for the dimensions of the management processes, the means to achieve objectives and the diversity strategy (Table 7). This is an indication that the various job levels and race groups experience these dimensions differently and also that they seem to modify the values to reflect their own distinct situation (Robbins 2005). Harris & Ogbonna (1998) found in their research that the various levels of the organisational hierarchy have different views of organisational culture, for instance the views of senior managers can be radically different from those of shop floor workers. Males and females experience only the vision and mission and the external environment differently (Table 9). This is an indication that gender does not influence the sub-cultures in the organisation to a large extent.

In summary, the results of the foregoing analysis indicate the creation of sub-cultures in the regions, which to some extent are reflected in some of the other biographical groups (Table 11). It appears from the analysis that the more strategic or long-term dimensions may have the biggest influence on the creation of sub-cultures. Lok & Crawford (1999) highlight the importance of sub-cultures in the summary of their research, noting that organisational sub-cultures had a greater effect on organisational commitment than did organisational culture. In particular, their study showed that innovative and supportive sub-cultures have a significant and positive effect on participants' commitment. This study confirms the creation of sub-cultures in a South African organisation. The assumption can thus be made that the management processes and means to achieve objectives are, especially in the regions

in which this organisation operates, applied differently. This discussion fulfils the purpose of the article, namely to determine whether SACI can be used to detect sub-cultures.

Future research should focus on the impact of sub-cultures across companies and the role they play in organisational effectiveness. Opportunities also exist for further research to explain the impact and influence of culture in the different sub-sectors of South African industries. The importance of employment equity/diversity on South African business practices also needs to be acknowledged in such research.

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