

Academic service climate as a source of competitive advantage: leverage for university administrators

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Abstract

The psychological climate literature examines links between facets of climate, such as service orientation and a range of individual and organisational outcomes including work attitudes and performance. This study investigated the relationship between the service climate of an Australian university and outcomes important to its' key stakeholders. A measure of service climate was developed for use in an academic setting, and the reliability and criterion validity examined. Questionnaire data were collected from 340 staff and 1196 students. Results showed the measure of academic service climate to be internally consistent and strongly associated with employee work attitudes, and student evaluations. Implications for academic administrators are discussed.

Academic service climate as a source of competitive advantage: leverage for university administrators

It is increasingly important for tertiary education institutions to be competitive in both domestic and international markets, as the government contributes funding largely in the form of competitive, performance-based research grants, and allocates operating costs based on a specified number of student places (Nelson, 2004). Since achieving growth in a competitive market has much longer been the province of the business sector, there is potential for university administrators to

benefit from research which business managers have used to build a competitive edge. In the corporate context, the construct of the psychological climate in an organisation and its associated outcomes, has received considerable research attention for over twenty years. An important element of the psychological climate in an organisation is service climate, or the degree to which employees feel that the organisation places significant value on the needs of its client or customer base. Service climate has been particularly important in creating positive customer evaluations and staff satisfaction and retention, both important sources of competitive advantage for organisations. The purpose of this paper was to apply the service climate conceptual framework to an academic setting to examine its' association with a range of outcomes relevant to improving a university's competitive position, such as employee work attitudes and student evaluations of teaching and learning.

Approaches to the study of psychological climate in organisations

Psychological climate is a valuable construct in any investigation of organizational functioning (Brown & Leigh, 1996; James & James, 1989; James, Jones, Hartman & Stebbins, 1977), defined as a perceptual attribute of the *individual* regarding the organizational context (James & Jones, 1974). These perceptions provide a cognitive map of how the organization functions and therefore help individuals determine the appropriate attitudes and behaviour within that organization (Schneider & Reichers, 1983). Psychological climate is theorised as a mediator between objective characteristics of the work environment and employee attitudes and behaviours such as job satisfaction and adjustment during organizational change (Day & Bedeian, 1991; Martin, Jones & Callan, 2005). A recent meta-analytic review of over 100 empirical studies provided evidence that psychological climate had a consistently strong effect on employees' job satisfaction; which in turn, predicted motivation and performance (Parker, Baltes, Young, Huff, Altmann, Lacost, & Roberts, 2003).

Although early research in this area sought to define a global measure of psychological climate, current conceptualisations of psychological climate arise from two broad theoretical perspectives: the social constructionist and multiple stakeholder approaches. The social constructionist approach conceptualises psychological climate as applied

to a specific referent such as customer service (Schneider & Bowen 1993), creativity and innovation (Ekvall, 1996), or safety (Flin, Mearns, O'Connor, & Bryden, 2000). Schneider and Reichers (1983) phrased this approach as 'climate for something', while Rousseau's (1988) term is 'facet-specific climates'. Indeed, recent studies report referent measures of climate, that is, measures of a 'climate for something', produce stronger relationships with specific organizational outcomes than more global measures (Schneider, Wheeler, & Cox, 1992).

The multiple stakeholder approach to psychological climate emphasizes employee perceptions of the way the organization impacts on stakeholders as determinants of a range of broader employee attitudes towards the organization (Burke, Borucki, & Hurley, 1992). Stakeholders are those groups within or outside an organization, who have a stake in the performance of the organization and are therefore affected by its actions, for example customers and shareholders (Roberts & King, 1989). Burke *et al.*, (2002) provided a theoretical rationale for the multiple stakeholder perspective in climate research: (1) employees are aware of, and sensitised to, customer needs and organizational practices in relation to the provision of service; (2) employees are likely to affix meaning to environmental attributes on the basis of valuations or cognitive appraisals of how the attribute impacts on the employees' well-being; and (3) employees may cognitively appraise their work environment in terms of what is meaningful not only to their own well-being, but also to the well-being of stakeholders. Burke *et al.*, (1992) identified service orientation as an important stakeholder dimension. A climate for service exists when individual employee perceptions are integrated into a theme that indicates service is important to the organization (Johnson, 1996).

The concept of service orientation, or a climate for service, is highly salient in the university context. The modern university has expressed its core business as comprising three major strands: building knowledge, teaching students and service to community; with funding contingent primarily upon the first two. While fee structures for students have varied across time and nations, in Australia, the advent of the Higher Education Contribution Scheme whereby students contribute financially to the costs of their education has emphasised the importance of service climate. Any academic or administrator who has had a conversation with a dissatisfied student will be acutely aware that students have expectations about both course content and the service they receive in

return for their fees; they perceive themselves in a customer role. They would also be cognizant of how the dissatisfaction of students impacts on the general morale of both academic and general staff.

We argue that our paper's focus on academic service climate, effectively combines both of the above approaches by reflecting employee perceptions of how the university impacts on a key stakeholder group (students) and applying the social constructionist idea of a specific climate referent. It is the central aim of the present study that this focus will yield a useful investigation of psychological climate in an academic setting that will enhance our knowledge of an important means of improving the competitive position of a university.

A review of the service climate literature

There is considerable evidence supporting a relationship between employee perceptions of service climate in an organization, and customer evaluations of service received (Borucki & Burke, 1999). The proposed mechanism for this relationship is that employee attitudes, such as job satisfaction, positively influence customer satisfaction via service transactions (Homburg & Stockk, 2005). Customer satisfaction with service received is an important determinant of customer loyalty and retention, and in turn, increased profits (Salanova, Agut, & Peiro, 2005). Accordingly, it has been argued that a positive service climate can be a source of sustainable competitive advantage to an organisation (for example Borucki & Burke, 1999; Griffith, 2001; Horwitz & Neville, 1996; Schneider & Bowen, 1993).

Schneider and his colleagues have consistently reported findings that employee perceptions of strong service climate, result in customers reporting more positive experiences and higher levels of customer satisfaction (Schneider & Bowen, 1985; Schneider & Bowen, 1993; Schneider, Parkington, & Buxton, 1980; Schneider, Wheeler, & Cox, 1992). Other researchers have continued to find support for this relationship (Borucki & Burke, 1999; Homburg & Stock, 2005; Liao & Chuang, 2004). Heskett, Sasser, and Schlesinger (1997) support a reciprocal relationship between employees' and customers' attitudes, identifying a 'cycle of success' to explain the contagious impact of one group's success on the other. Clearly, positive employee perceptions of service are an important factor in creating positive customer attitudes,

evaluations, and purchasing behaviour, and in turn, the organisation's financial performance (Yoon, Beatty, & Suh, 2001).

Schneider and Bowen (1983) claimed that aspects of the climate of an organization are visible to the customer due to the psychological and physical proximity between employees and customers during service interactions. It could be argued that in an academic setting, where there are many opportunities for students to receive cues from multiple staff (rather than from relatively few staff as is the case in sectors such as retail or banking), that employee perceptions of service climate are especially pertinent to student evaluations of service.

The contagious effects of employee affect on customer attitudes are further illuminated by Pugh (1997, 1999, cited in Griffith, 2001) who proposed that the emotions employees express during the course of their jobs, are often those emotions they feel toward their work. Subsequently, during service interactions, customers experience the expressed feelings of employees. These experiences in turn, become the customers' experience of service, and contribute to evaluations of service.

Dietz, Pugh and Wiley (2004) tested this hypothesis and found that the more proximal the employee to the customer, and the more contact between employee and customer, the stronger the relationship between employee perceptions of service and customer perceptions of service. These findings were explained by the authors in terms of network theory and the contact hypothesis. Network theory proposes that frequent contact and direct interactions result in vicarious experiences of each other's behaviours. Subsequently, individuals within the network develop similar opinions, beliefs and attitudes. Similarly, the contact hypothesis (Allport, 1954) suggests that more frequent contact facilitates enhanced information sharing, which in turn increases mutual knowledge. This mutual knowledge can manifest as shared attitudes and group norms.

More recently, Homburg and Stock (2005) cite Heider's (1958) balance theory to support the positive link between employees' work satisfaction and customer satisfaction. According to balance theory, the relationships between two persons and an object can either be balanced or unbalanced. In balanced triads, the two persons have similar attitudes towards the object, whereas in unbalanced triads, the two persons' attitudes differ. If the triad is unbalanced, cognitive tension results and

forces activities to restore balance. In the context of the present research, the triad components would include: i) employees, ii) students, and iii) university. Balance theory would argue that differences in employee and student attitudes towards service climate, would result in either employees or students changing their attitude to restore balance. Homburg and Stock (2005) argue that the employee is more likely to be influential on the customer, than vice versa. Mere exposure phenomenon is used to explain the direction of this relationship, as employees experience the work environment on a daily basis, and as such have attitudes towards the organization that are more stable and resistant to change, than those of customers.

Andrews and Rogelberg (2001) made the point that relative to goods, services are less tangible, require greater customer participation, and are typically produced and consumed simultaneously. Hence, customer evaluations of service are at least in part, a function of the service received, rather than the characteristics of a product. Therefore, in theory, a university might deliver academically excellent courses, but if this is in the context of a poor service climate, it is reasonable to expect that student satisfaction would be negatively affected.

Research Aims and Hypotheses

Given the literature reviewed above, it appears that service climate is a source of competitive advantage in terms of its function as a source of employee and customer satisfaction. The current study aims to adapt the concept of service climate to the university setting to examine its potential to impact competitive advantage. The study offers an original contribution to both the service climate and educational administration literatures in a number of ways. Firstly, service climate is investigated in an Australian academic setting. The majority of research investigating climate for service has been confined to the banking and retail sectors in the United States. Hence, the current research aims to increase the generalisability of service climate research to Australian and educational contexts. A concise instrument measuring academic service climate is tested for reliability and validity in both staff and student samples. In both these stakeholder groups, outcomes of the service climate construct are investigated, as they are proposed to be sources of competitive advantage for universities. The relationship between academic service climate and student satisfaction indicators is

previously unreported. In addition, the relationships between service climate and work attitudes are investigated in the staff sample. While there is substantial literature demonstrating the relationship between positive service climate perceptions and work outcomes such as job satisfaction, work effort, and performance (see Liao & Chuang, 2004; Yoon *et al.*, 2001), there is relatively little including commitment and turnover. We include these latter measures of staff attitude as important indicators of staff retention, an important source of competitive advantage both directly (through reducing recruitment and training costs) and indirectly (through the proposed theoretical mechanism that influences customer satisfaction).

The literature provides considerable support for the directional nature of the proposed relationships between psychological climate and employee and customer attitudes (Parker *et al.*, 2003; Schneider & Bowen, 1993; Liao, & Chuang, 2004). Hence, the hypotheses of the present study are as follows.

H1. Positive staff perceptions of academic service climate will be associated with high levels of job satisfaction, organisational commitment, and low levels of intentions to turnover.

H2. Positive student perceptions of academic service climate will be associated with high levels of teaching and course satisfaction.

Method

Staff Sample

Three hundred and forty (340) voluntary respondents were drawn from four campuses of a regional university in Australia. Both academic and general staff from all divisions and faculties of the university were invited to participate by completing an online questionnaire (or on paper if preferred). The questionnaire was promoted to staff through e-mail, the staff intranet, heads of faculties and divisions, and posters displayed on the largest campus. Incentives were offered in that participants were invited to enter a prize draw. The prizes were obtained from local community businesses in exchange for advertising during survey promotion.

The percentage of males and females in the sample was 43.9 per cent and 56.1 per cent respectively. Most of the participants were aged

between 31 and 50 (57.3 per cent). Of the remaining subjects, 19.5 per cent were 30 or younger, while 23.2 per cent were 51 or older. Academic staff comprised 39.7 per cent of the sample and 60.3 per cent of subjects were general staff encompassing a wide range of job types such as administration, finance, marketing, and maintenance. More than three-quarters of the sample had been employed by the university for three or more years. The approximate response rate was 25 per cent (calculated from 1310 full time equivalent staff). Table 1 shows the demographic statistics of the sample, as compared to the actual staff. Comparison between the actual university percentages and sample percentages indicated that the sample was representative of the university staff profile.

Table 1
Demographic Profile of Staff Participants

Demographic	Description	Frequency	Sample Percent	Staff Statistics
Gender	Female	189	56.1	51.5
	Male	148	43.9	48.5
Age Group	21 or younger	2	0.6	
	22 - 30	63	18.9	
	31 - 40	106	31.8	
	41 - 50	85	25.5	
	51 or older	77	23.1	
Job Type	Academic	126	38.1	41.4
	General staff	205	61.9	58.6
Division	Corporate & Commercial	52	16.0	17.6
	Research & International	18	5.5	6.4
	Info Service & Tech	32	9.8	7.75
	Staff & Students	29	8.5	5.25
Faculty	Science & Engineering	67	20.6	19.0
	Law, Bus & Creative Arts	20	6.1	8.5
	Arts, Ed & Soc Sciences	52	16.0	13.4
	Med, Health & Mol Sciences	54	16.6	15.5
Campus Cairns		38	17.8	14.9
	Townsville	172	80.8	81.7
Service	Mt Isa	3	1.4	1.3
	Less than 1 year	45	13.4	
	1 - 2 years	39	11.6	
	3 - 5 years	94	27.6	
	6 - 10 years	73	21.7	
	11 years or more	85	25.3	

Note: Participants n=340. Percentage given is valid percent calculated to account for any missing data.

Staff Measures

The questionnaire included a scale measuring the independent variable, academic service climate and also measured the dependent variables of organizational commitment, job satisfaction, and turnover intentions. For the purposes of this research, items of the service scale were constructed according to a definition of service climate as the perception of the university and its members to provide quality courses to students in a supportive, responsive, and cost efficient manner. This definition was derived from Burke and colleagues' (1992) discussion of service orientation as a stakeholder dimension. A sample item is 'this organization puts students first'. This scale was developed for use in the present study and all six items appear in Appendix A.

Organizational commitment was measured using Culpepper's (2000) revised scales for the Meyer and Allen (1991 as cited by Culpepper, 2000) three-component commitment construct. Culpepper (2000) cites Allen and Meyer (1997) as reporting the following reliability coefficients, affective scale 0.85, continuance scale 0.79, and the normative scale 0.73. Culpepper (2000) successfully improved the reliability of the scales by removing items identified as problematic in the literature, maintaining 19 of the original 24. Some items were reverse scored and a 5-point likert scale was used where 1 = 'strongly disagree' and 5 = 'strongly agree'.

Defined as the strength of an individual's identification with, involvement in, and attachment to the organization, organizational commitment measures the affective, continuance and normative commitment of employees (Meyer & Allen, 1991 as cited by Culpepper, 2000). Affective commitment stems from positive emotions about the organization. A sample item is, 'this organization has a great deal of personal meaning to me'. Continuance commitment is often due to a high perceived cost of leaving the organization. A sample item is, 'too much in my life would be disrupted if I decided I wanted to leave my organization now'. Normative commitment develops because of an employee's internalization of organizational values and goals, and the associated sense of obligation. A sample item is, 'if I got another offer for a better job elsewhere I would not feel it was right to leave my organization'.

Job satisfaction was measured using Warr, Cook, and Wall's (1979) 15-item job satisfaction scale. Warr *et al.*, (1979) reported the coefficient alphas of .85, and .88 in 2 different samples. A test-retest correlation of .63 was observed across 6 months. The measure included subscales of intrinsic and extrinsic job satisfaction. Sub-scale reliabilities were reported as .74 for Extrinsic, and above .79 for Intrinsic. A sample intrinsic item is, 'how satisfied are you with the freedom to choose your own method of working'. A sample extrinsic item is, 'how satisfied are you with the physical work conditions'. A 7-point likert scale was used where 1 = 'extremely dissatisfied' and 7 = 'extremely satisfied'.

Turnover intentions were measured using a scale that expanded a 3-item index of employees' intention to leave their job from *The Michigan Organizational Assessment Questionnaire* (Cammann, Fichman, Jenkins, & Klesh, 1979). Two items from the work of Meyer, Allen and Smith (1993) were added to increase the scale to 5 items. Cammann *et al.*, (1979) reported the original 3-item scale to possess a coefficient alpha of .83. A sample item of the expanded scale is, 'how likely is it that you will be actively looking for a job next year'. Responses were scored on one of two 7-point dimensions. The first scored 1 = 'not at all likely' and 7 'extremely likely', whereas the second scored 1 = 'strongly agree' and 7 'strongly disagree'. Items 1 and 3 used the former, while items 2, 4, and 5 used the latter.

To ensure the accuracy and clarity of the questionnaire, it was informally pilot tested on a group of 15 people (employees and post-graduate students of the university) before the online and paper versions were made available to staff.

Student Sample

The university student association distributed approximately 14 000 surveys to all current students via email, of which 1196 useable surveys were returned. Despite a low response rate of approximately 8.5 per cent, the demographic profile of participants shown in Table 2, demonstrates a representative sample. The questionnaire was promoted to students through e-mail, and posters displayed on the main campus. The same incentives offered to staff were offered to students. ANOVAs were conducted between demographic variables and dependent variables, revealing no significant effects.

Table 2
Demographic Profile of Student Participants

Demographic	Description	Frequency	Sample Percent	Student Statistics
Gender	Female	890	74.4	64.13
	Male	306	25.6	35.17
Age Group	20 or younger	469	39.2	
	20 or older	726	60.7	
Campus	Cairns	282	23.6	23.3
	Townsville	881	74.1	73.73
	External	13	1.1	
	Other	13	1.1	2.97
Faculty	Science & Engineering	320	26.8	21.29
	Law, Bus & Creative Arts	226	18.9	22.62
	Arts, Ed & Soc Sciences	458	38.3	38.1
	Med, Health & Mol Sciences	192	16.1	17.99

Note: Participants n=1196. Percentage given is valid percent calculated to account for any missing data.

Student measures

The student questionnaire included a scale measuring the independent variable, academic service climate and also measured the dependent variables of *good teaching* and *course satisfaction*. These indicators of student satisfaction were taken from the *Course Evaluation Questionnaire* (Ramsden, 1991). The *good teaching* subscale consisted of 6 items including, 'the teaching staff of this course motivated me to do my best work' and 'my lecturers are extremely good at explaining things to me'. It should be noted that (as per the Course Experience Questionnaire) *course satisfaction* was measured with a single item 'overall, I am satisfied with the quality of this course'. Items were rated using a 5 point likert scale where 1 = 'strongly disagree' and 5 = 'strongly agree'.

Results

Means, standard deviations, inter-correlations and reliability coefficients for the staff variables appear in Table 1, and student variables in Table

2. The Cronbach alpha coefficients demonstrate internal consistency of all of the scales. Using Cohen's (1988) guidelines for interpreting statistical effect size for regression, Table 3 shows a strong correlation between job satisfaction and service climate. A strong correlation is also apparent between job satisfaction and turnover intentions, as consistent with the literature. Medium correlations are evident between service climate and organisational commitment, as well as service climate and turnover intentions. A small but significant correlation is shown between job satisfaction and organisational commitment, and organisational commitment and turnover intentions.

Table 3
Intercorrelations of staff variables

Scale	Mean	SD	1	2	3	4
1. Service Climate	4.90	1.13	(.87)			
2. Org Commitment	2.87	0.47	.27**	(.76)		
3. Job Satisfaction	4.66	1.0	.47**	.16**	(.90)	
4. Turnover Intentions	3.42	1.72	-.29**	-.20**	-.51**	(.88)

Note. Cronbach alpha coefficients are in parentheses.

**Correlations significant at $p < .01$.

Table 4
Intercorrelations of student variables

Scale	Mean	SD	1	2	3
1. Service Climate	4.79	1.24	(.90)		
2. Good Teaching	3.34	0.73	.59**	(.86)	
3. Course Satisfaction	3.91	0.59	.58**	.61**	(^a)

Note. Cronbach alpha coefficients are in parentheses.

^a Course satisfaction was a single item measure.

**Correlations significant at $p < .01$.

Intercorrelations of student variables

The first hypothesis of the study predicted a positive relationship between staff perceptions of service climate and staff reports of organizational commitment and job satisfaction, but a negative relationship with turnover intentions. To test this hypothesis, a series of three linear regressions were conducted with service climate as the independent variable and job satisfaction, organisational commitment, and turnover intentions as dependent variables. As shown in Table 5, service climate was a significant statistical predictor of all three independent variables, supporting hypothesis one. Inspection of the R^2 values revealed that service climate accounted for significant variance in organisational commitment (7 per cent), job satisfaction (22 per cent), and turnover intentions (8 per cent) respectively.

Table 5
Linear Regressions for Organizational Commitment, Job Satisfaction and Turnover Intentions (N=340)

Dependent Variables	Independent variable	β	R^2	F	t	p
Org Commitment	Service Climate	0.27	0.07	(1,338) 26.26	5.12	0.000
Job Satisfaction	Service Climate	0.47	0.22	(1,338) 96.43	9.82	0.000
Turnover Intentions	Service Climate	-0.29	0.08	(1,338) 30.04	-5.48	0.000

The second hypothesis predicted a positive relationship between students' perceptions of service climate and student reports of good teaching and overall course satisfaction. To test this hypothesis, two linear regressions were conducted with service climate as the independent variable and good teaching and overall course satisfaction as the dependent variables. As shown in Table 6, service climate was a significant predictor of both good teaching and overall course satisfaction, supporting hypothesis two. Inspection of the R^2 values shows that service climate explained a large amount of the variance in both good teaching (35 per cent) and course satisfaction (33 per cent).

Table 6
Linear Regressions for Good Teaching and Overall Course Satisfaction (N=1196)

Dependent Variables	Independent variable	β	R^2	F	t	p
Good Teaching	Service Climate	.59	.35	(1,1193) 644.09	25.38	0.000
Course Satisfaction	Service Climate	.58	.33	(1,1193) 598.63	24.47	0.000

Negative affect was not controlled for during the regression analysis. Negative affect is a higher order personality construct that encompasses neuroticism (or emotional stability), trait anxiety, and self-concept (Watson & Clark, 1984). Some researchers assert that negative affect can confound the self-report data of employees (for example Burke, Brief & George, 1993; Moyle, 1995; Payne, 1998). However, recent research has reported that claims of negative affect as a 'methodological nuisance' are misguided. For example, Spector, Zapf, Chen and Frese (2000) argued that affective disposition may be important to a study theoretically, but addressing it at a methodological level is not appropriate. Subsequently, the correlations did not control for negative affect.

Discussion

The present study sought to examine the utility of the concept of service climate in the Australian higher education context. The results make an important empirical contribution to the literature in a number of ways. Firstly, the measure of service climate developed for use in the present study showed preliminary evidence of reliability and criterion validity. The measure describes *academic* service climate as the perception of staff and students, as core stakeholders, that the university provides quality courses to students in a supportive, responsive and cost efficient manner.

Secondly, both hypotheses of the study were supported, indicating that in a staff sample, service climate is related to job satisfaction, organizational commitment and turnover intentions, and in a student sample, to satisfaction with teaching and courses. Specifically, staff perceptions of service climate accounted for 22 per cent of the variance in Job Satisfaction, 7 per cent of the variance in Organization Commitment and 8 per cent of the variance in Turnover Intention. Student perceptions of service climate accounted for 35 per cent of the variance in student perceptions of Good Teaching, and 33 per cent of the variance in Course Satisfaction. These findings provide further support to the literature documenting a range of important outcomes of service climate in other organisational settings.

Thirdly, the findings have practical implications for university management. It could be argued that an important implication of the relationship between service climate and job satisfaction found in this study relates to staff performance (for example Parker *et al.*, 2003). In the university setting, job performance indicators include: (i) for general staff, efficiency and effectiveness in the myriad of essential support functions from administration to technical services and buildings and grounds care and (ii) for academics, the funding-critical performance outputs of teaching and research quality. It should be noted that indirectly, general staff performance is also critical to the achievement of research and teaching outcomes. Although the relationships between service climate and commitment and turnover intentions were of lower magnitude, they may have some cost implications for human resource management.

The relationship between service climate and student evaluations of teaching and overall course satisfaction suggests that in addition to improving staff outcomes, efforts to improve service climate may have implications for another major stakeholder group, students, or customers of the university. As stated earlier in the paper, customer evaluations of service may be more influenced by perceptions of the service received than the actual quality of the product (Andrews & Rogelberg, 2001). Conversely, a relatively weaker course might receive higher ratings from students if delivered in the context of a positive climate for service. Indeed this is the rationale exploited by some training organizations: a course with relatively weak content or an ill-qualified instructor can be profitable when backed with a slick customer service system. It is not the intention of this paper to suggest that universities should adopt this strategy; rather that by seeking to

improve their internal climate for service, student evaluations may at least not be muddled by the impact of poor service. The contribution of service climate to student satisfaction with teaching and overall course also has an impact on the attraction of government funding for operating costs, and of full fee-paying international students. Hence, to the extent that a university has a positive service climate, it has an important contribution to its overall competitive advantage.

The good news for university administrators is that service climate is amenable to intervention. Although intervention must be tailored to the individual organization (or even its sub-units), some general observations from the research literature are pertinent. The antecedents of service climate include employee perceptions of the organisation's (i) human resource practices (ii) responsiveness to consumer input, and (iii) the processes and procedures for actual delivery of service to customers (Schneider & Bowen, 1985; Schneider, Wheeler & Cox, 1992). Schneider, White and Paul (1998) referred to such antecedents as foundation issues that are a necessary but not sufficient condition for a climate for service. They noted resources, training, managerial practice, and the support required to perform, as relevant foundation issues. The relevance of these antecedents is supported by research on the correlates of customer perceptions of service such as employee work attitudes (Johnson, 1996); employee training (Johnson, 1996; Schneider *et al.*, 1992); reward and recognition of employee service performance (Johnson, 1996); employee empowerment (Schneider & Bowen, 1993); and employee self reported control of the service situation (Dana & Iddo, 2002). These antecedents have important managerial implications.

Issues for managerial consideration include mechanisms that facilitate service delivery such as adequate physical and material resources and supportive supervision, or aspects of the environment that impact on an employee's experience of the organization, such as job autonomy, work group cohesion, or recognition of service performance. If the employees perceive that their capacity to deliver services is impeded by the policies and procedures of the organization, it is likely they will demonstrate a diminished ability to provide services. Furthermore, employees need to feel that their own needs have been met within the organisation, to effectively meet the needs of customers. Thus, managers must create two related but distinct climates: (i) a climate for service and (ii) a climate for employee well-being. Both are necessary conditions for a positive service climate, but alone, neither is sufficient (Schneider & Bowen, 1993). These dimensions may be

particularly pertinent in considering policies and management strategies affecting casual teaching staff who typically have high levels of contact with students.

Research conducted by Salanova, Agut, and Piero (2005) supports the contention that foundational issues are necessary but not sufficient, including organizational resources and work engagement as significant predictors of service climate. The researchers found that when employees perceive that the organizational resources available assist in removing obstacles at work, they have higher levels of engagement, which is in turn related to more positive service climate. Positive service climate increased customer appraisals of employee performance, and subsequently customer loyalty. Hence, reviewing organizational resources and their capacity to facilitate rather than hinder work, would appear to be a reasonable target point for educational administrators to initiate change in their organizations and reap the 'flow on' rewards.

Limitations of the study and directions for future research

The major limitation of the present study is the cross sectional nature of the survey design and its' reliance on self-report measures. Future studies could look at other means of assessing outcomes of service climate and collecting sufficient data to enable student data and staff data to be linked. Although a directional relationship (causal link) between academic service climate and the outcomes of interest cannot be claimed on the basis of the regression analyses, considerable theoretical and empirical literature exists to justify the predictions made and results found (Parker *et al.*, 2003; Schneider & Bowen, 1993; Liao, & Chuang, 2004).

On the basis of the propositions of network theory and the contact hypothesis, it might be reasonable to expect that staff and student perceptions of service climate in a university setting may be more closely aligned at school/department/faculty level than with whole of university service climate. Indeed, it is likely that subunits will have different service climates within the overall university service climate. Hence it may be instructive to conduct service climate research to make these subunit comparisons. A large multiple sample study would enable multi-level analyses based on sub-unit level to be conducted.

One aspect of staffing for teaching may also be worthy of further investigation with respect to service climate in the academic setting. Universities typically employ a significant number of graduate students and other individuals on a casual basis to provide instruction in tutorials/practicals. The graduate students therefore, have dual stakeholder status both as students in their own right, and as staff. Given their recent and substantial experience as undergraduate students, and their limited, and perhaps more marginal experience as staff, it would be reasonable to expect that they would more closely identify with the students they teach than with the university that pays their casual wage. It may be that such staffing arrangements makes universities more vulnerable to the impact of general service climate than other sectors. In the retail and banking sectors for example, staff in customer service roles typically receive specific training, in customer service and may be rewarded for excellence in customer service. In universities, casual teaching staff are supervised by full-time academic staff who typically direct most supervisory effort to the academic content and learning activities. Neither recognition nor more tangible reward is offered for excellence in service to students, and even teaching awards which may imply a service component, are typically available only to permanent or longer-contract staff. Casual university staff may also have relatively lower levels of awareness of university policies and procedures relevant to service climate, and therefore base their perceptions primarily on their own experience of the university's service climate. Future research could also investigate this issue.

As most of the research investigating service climate has been conducted in the banking and retail sectors (for example Borucki & Burke, 1999; Schneider & Bowen, 1985), a new measure of academic service climate was devised for the present study. This measure demonstrated good reliability and criterion validity in this sample. It is argued that researchers and university administrators should consider including the measure in future staff and student surveys and research projects.

Conclusion

The results of this study indicate that in a university setting, service climate as perceived by staff is significantly related to job satisfaction, organization commitment and turnover intentions (constructs that the

literature has clearly demonstrated are critical to performance outcomes). In addition, the data presented here indicate that student perceptions of service climate are significantly related to their satisfaction with quality of teaching, and their course overall. Hence, as service climate is amenable to intervention, it constitutes a high leverage issue for university administrators in their need to develop competitive advantage in a global higher education market.

Appendix A: *Unpublished Scales*

Academic service climate items

1. I would recommend this organization as a place to study for close friends and family members.
2. The staff at this organization do their best to support students.
3. This organization puts students first.
4. This organization provides good quality academic training to students.
5. This organization is responsive to student needs.
6. This organization provides students with value for their fees.

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