

How Does an Organisation's Culture Relate to Professional Growth?

A Study of Finnish Higher Education Institutions

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Onko organisaatiokulttuurilla yhteyksiä ammatilliseen kasvuun?

Tutkimus kolmesta suomalaisesta korkeakoulusta

Abstrakti

Tässä tutkimuksessa on tarkasteltu organisaatiokulttuuria ja kasvuorientoitunutta

ilmapiiriä kolmessa Tamperelaisessa korkeakouluorganisaatiossa (Tampere3 korkeakoulut) ja pyritty tunnistamaan kulttuurin ja ilmapiirin välisiä yhteyksiä. Organisaatiokulttuurin arviointimittaria (OCAI) ja kasvuorientoituneen ilmapiirin kyselyä (GOAQ) soveltaen koottiin aineistoa yhteensä 322 henkilöstön jäseneltä. Tulokset osoittivat, että kaikkia neljää teorian mukaista organisaatiokulttuuria (hierarkkinen, markkinaorientoitunut, klaani ja adhokratia) esiintyi Tamperelaisissa korkeakouluissa, joskin

vallitsevana kulttuurina oli tunnistettavissa klaani. Kasvuorientoituneen ilmapiirin tulos oli yli keskiarvon, mikä osoitti ilmapiirin olevan yleisesti henkilöstön ammatilliselle kasvulle suotuisa. Kulttuurin ja kasvuorientoituneen ilmapiirin välisten yhteyksien tarkempi tarkastelu kuitenkin osoitti, että vain klaani ja adhokratia vallitsevina kulttuureina koetaan ammatillista kasvua tukevin. Toisin sanoen, kun tarjotaan henkilöstölle joustavuutta, vaikutusmahdollisuuksia ja itsenäisyyttä, tuetaan samalla ammatillista kasvua ja kehittymistä. Aineisto osoitti myös oppi- ja tieteenalojen välisiä eroja organisaatiokulttuureissa sekä vastaajien sukupuolten ja koulutustason välisiä eroja kulttuurien arvioinnissa. Korkeakoulujen päättävät tahot voivat ottaa tuloksia huomioon tehdessään strategisia suunnitelmia ja ratkaisuja em. korkeakoulujen yhteistyön tiivistämisessä.

Avainsanat: *korkeakoulutus, organisaatiokulttuuri, ammatillinen kasvu, Tampere3*

Abstract

This study seeks to explore organizational culture and growth-oriented atmosphere as experienced at higher education institutions in Tampere together with the relation-

Introduction

Higher Education Institutions (HEIs) generally seek to unite their efforts and build coalitions to enhance their competitive capability, and Finnish HEIs are no exception (Crawford & Bethell, 2012). Recently, the University of Tampere (UTA), the Tampere University of Technology (TUT), and the Tampere University of Applied

Sciences (TAMK) joined forces to develop a new form of cooperation. A new institution, to be called Tampere3, is planned to allow students and staff from the three HEIs to collaborate in creating an inspiring and globally attractive environment for their research and learning (Tampere3, 2017). The idea is to bring together the three distinct HEIs in such way that they will complement each other in one multidisciplinary university. ‘The areas of cooperation will include, among others, joint study modules, IT services and international HR services, new research openings

ship between culture and atmosphere. The Organisational Culture Assessment Instrument (OCAI) and the Growth-Oriented Atmosphere Questionnaire (GOAQ) were administered to a sample of 322 staff members. The results revealed that all four culture types (Hierarchy, Market, Clan and Adhocracy) were experienced in moderation in Tampere higher education institutions, while the dominant culture was found to be Clan. The score for a growth-oriented atmosphere was above the average, which means that the atmosphere encourages professional growth. The relationship between culture and growth-oriented atmosphere indicated that only the Clan and Adhocracy culture types support professional growth. That is to say, allowing the staff flexibility, discretion and autonomy implicitly guarantees their professional growth. The study also reported differences in organisational culture based on discipline, job type, gender and educational level. Administrators at higher education institutions could benefit by taking the study findings into account when developing strategic plans and initiatives.

Keywords: *higher education, organisational culture, professional growth, Tampere3, Finland*

and environments, the Open University and a joint Tampere Summer School concept' (UTA, 2015, pp. 6–7). Tampere3, if implemented, will have about 35,000 students, 4,600 employees, and will produce about 4,000 publications per year. The strategic leadership of Tampere3 is the responsibility of the boards of all three universities (UTA, 2015).

This study comes at a time when Tampere3 negotiations are still in progress. Caution, however, should be observed when institutions are working together in such a 'reengineering' change initiative. According to Cameron and Quinn (2006), 'The failure rate of most planned organisational change initiatives is dramatic' (p. 1). This is not to say that the Tampere3 initiative is going to fail, but we do need to understand how such difficulties frequently arise. Cameron and Quinn (2006) argue that the main cause of failure appears to be a neglect of the organisational culture as part of the change initiative.

In the higher education context, organisational culture is defined as the collective memories, beliefs, assumptions and thinking styles of the HEI stakeholders (academics, administrators, students, etc.), which implicitly guide their behaviour (Cai, 2008; Cameron & Quinn, 2006; Kuh & Whitt, 1988; Maassen, 1996; Smart & John, 1996). A culture represents something hidden, deep and implicit; it is the unwritten rules that govern the staff's behaviour. The culture may be implicit and hidden, but its effect on the institution's performance is widely recognized (Yu & Wu, 2009). Researchers have paid considerable attention to organisational culture because it has been proven to be a determining factor in institutional effectiveness (Cameron & Ettington,

1988; Cameron & Quinn, 2006; Quinn & Rohrbaugh, 1981, 1983; Smart & John, 1996). Cultural rules interact with the organisation's staff and affect their growth motivation, attitude towards their jobs, team spirit, managerial decisions and evaluation of their jobs. Together, these dimensions create the organisational climate or atmosphere. Denison (1996) contends that the atmosphere's dimensions are rooted in the culture, are relatively temporary and are subject to direct control. Atmosphere is therefore more overt and refers to observable attributes of organisations (Cameron & Quinn, 2006; Peterson & White, 1992). It is argued that if culture refers to an organisation's personality, the climate then refers to the organisation's mood (Thomas, 2010). A growth-oriented atmosphere is comprised of all those factors that have a significant and positive effect on staff's willingness to accept challenges, to learn new things, to acquire new skills and to be up-to-date (Nokelainen, 2008). In other words, a growth-oriented atmosphere is the type of organisational climate that will support life-long learning for its staff.

Smith (2004) and Ruohotie (1999) both argue that not all HEI cultures are equal in supporting their staff's professional development and growth. This study examines how the culture of an organisation relates to its growth-oriented atmosphere. In particular, this paper seeks to examine which HEI cultures support growth and to what extent the current cultures in the Tampere3 institutions foster it. Accordingly, the following five research questions are formulated to address the aims of this study:

1. How do the staff members of the Tampere HEIs perceive their school or department's culture?
2. Are there significant differences in

perception of a school's culture when staff member's institution, job type, discipline, gender, educational level, age or job experience are considered?

3. How do staff members perceive the growth atmosphere of their school or department?

4. Are there significant differences in perception of growth atmosphere when staff member's institution, job type, discipline, gender, educational level, age or job experience are considered?

5. How does the culture of the Tampere3 institutions relate to a growth atmosphere?

Theoretical Framework

Organisational culture in higher education

Organisational culture is considered one of the main research areas in the higher education context. Maassen (1996) argues that 'the study of higher education can be divided into two aspects: the substantive activities of academics ... and the organisation of the work of academics, including the attitudes and values of academics towards their work and their profession' (pp.157–158). The value of studying the culture of institutions has been repeatedly highlighted in the literature. Austin (1990) and Beytekin, Yalçinkaya, Doğan and Karakoç (2010) contend that analysing the culture of an HEI leads to a deeper understanding of its staff's behaviours, concerns, problems and perspectives.

Kuh and Whitt (1988) define the HEI culture as 'the collective, mutually shaping patterns of norms, values, practices, beliefs, and assumptions that guide the behaviour of individuals and groups in an institute of higher education' (pp.

12–13). Therefore, a culture here represents the shared identity or personality and the qualities that distinguish one institution from all other institutions. Maassen (1996) argues that the study of culture in HE can be divided into two parts: the first part consists of studies on the cultures of universities or colleges, and the second part focuses on disciplinary cultures. Previous work done on the culture of universities and colleges includes that by Clark (1972, 1989), Bergquist (1992), Tierney (1988), Dill (1982) and Masland (1985); whereas prominent amongst the work done on disciplinary cultures is that of Becher (1981, 1994).

Measuring organizational culture is not an easy task; the many different approaches, models and frameworks reflect the different conceptualisations of culture. For example, Jung et al. (2009) identified 70 instruments and approaches used for assessing organizational culture. The HEI theorists have also been inspired by studies on organizational culture in the Business and Management fields such as the work of Schein (1985, 1996) as well as the work of Cameron and Quinn (2006). For example, Bergquist (1992) proposed that four cultures exist in academies of higher education: the collegial, the managerial, the developmental and a culture of advocacy. Later, Bergquist and Pawlak (2008) added two additional cultural types (the virtual and the tangible) to the four culture model to make it a model that engages with six cultures of the academy.

Cai (2008) says that the majority of studies dealing with organizational culture follow a qualitative approach and can be categorized into two tracks. The first track uses a dimensional approach to institutional culture, as in the work of Tierney (1988). The second track uses a typologi-

cal approach and identifies different types of institutional culture as in the work of Bergquist (1992) and Bergquist & Pawlak (2008). One of the most widely used typological frameworks in higher education is the Competing Values Framework (Cai, 2008; Yu & Wu, 2009).

Competing Values Framework (CVF) was developed as the result of efforts to identify organisational effectiveness (Quinn & Rohrbaugh, 1981, 1983). Originally, Campbell (1977) identified a list of 30 effectiveness criteria. Quinn and Rohrbaugh (1983) submitted that effectiveness list to a multidimensional scaling analysis and their results showed three competing value dimensions. The first dimension represents organisational focus (internal versus external orientation). The second dimension represents organisational structure (stability versus flexibility). The third dimension represents organisational means and ends (procedures versus outcomes). Yu and Wu (2009) state that the third dimension is integrated into the other two dimensions. Thus, Figure 1 shows the first two dimensions which are producing four quadrants representing

four organisational culture types (Cameron & Quinn, 1999, 2006): Hierarchy, Market, Clan and Adhocracy.

The *Hierarchy* culture focuses on internal control. It emphasizes that all resources are to be utilized as planned. It outlines procedures and guidelines that all staff members and students should follow. The rules are the governor. Rectors and deans are seen as directors and coordinators. A hierarchy culture aims to achieve stability, continuity, predictability and efficiency. The priority is to keep the institution alive; the status of the institution is of greater significance than the needs and interests of its stakeholders.

The *Market* culture focuses on external control. Running a well-functioning business is its prominent feature. It keeps an eye open for its share of the 'market.' These terms may seem strange and unrelated to the educational field. However, for-profit universities, colleges and schools are fundamentally business organisations. The institution's existence is contingent on its ability to keep and increase its share of students and research funds. The mar-

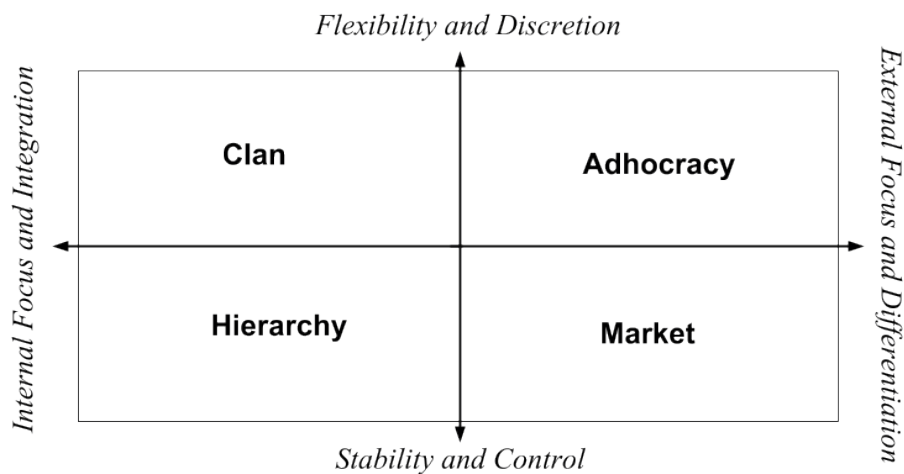


Figure 1. Competing Values Framework adopted from Cameron and Quinn (2006)

ket culture emphasises achieving goals and introduces rules to increase productivity and efficiency. Rectors and deans are tough and demanding. The market culture seeks to acquire profit from different sources, such as selling research, winning funds and minimizing expenses.

The *Clan* culture focuses on internal flexibility, individuality and spontaneity. It emphasizes close, coherent and moral relationships among staff members. It pays great attention to teamwork; all members work together for the sake of their institution. A clan culture allows staff members to be involved in decision-making at the highest levels. It supports the creation of a warm atmosphere where staff members feel as though they are in a big family. Rectors and deans are mentors and facilitators. A clan culture aims to foster staff members' professional development, satisfaction and participation.

An *Adhocracy* culture focuses on external flexibility. It supports openness, innovation, risk-taking and readiness for change. It focuses on innovative ideas and opportunities that could make the institution a pioneer in the higher education field. It encourages the staff's flexibility and freedom to produce cutting-edge research and study programs that attract attention. It adopts a flattened and dynamic structure, which can be subject to change within a few days (Cameron & Quinn, 2006). Rectors and deans are innovators and entrepreneurs. An institution holding to an adhocracy culture aims to be distinguished, to create something that does not exist elsewhere, and to stand out as one of the top HEIs.

An organisation's culture is not a homogeneous phenomenon. A single culture may have many subcultures (Cameron

on & Quinn, 2006). Each subculture has its own unique characteristics, which are different from those of other subcultures. Subcultures still have some characteristics in common, which represent the culture of the entire organisation. Kuh and Whitt (1988) and Maassen (1996) identify four primary cultural levels in HEIs: (1) academic profession; (2) discipline; (3) HEIs as an organisational type versus other organisational types such as companies and governments; and (4) a single HEI versus other HEIs. For example, the academic profession's subculture distinguishes between those who work as instructors and others who work as administrators, librarians, gatekeepers and IT members (Peterson & White, 1992). The academic profession subculture can be divided into different subcultures based on the qualities of the discipline, such as soft or hard (Becher, 1994; Clark, 1989). In addition, each institution (for example, UTA, TUT or TAMK) will have its own culture. In this study, we have assumed that universities of applied sciences – such as TAMK – have a culture that is different from that of other universities, such as UTA and TUT. This is mainly because Applied Universities in Finland have distinct structures and regulations (Ministry of Education and Culture of Finland, 2016c).

Professional growth

Professional growth refers to the continuous learning that keeps individuals updated ahead of workplace environment changes (Nokelainen, 2008). Professional growth is usually the result of professional development practices. Professional development has been defined as those processes, procedures, strategies, plans and programs that the institution offers its employees, which aim at their professional growth (Nokelainen & Ruohotie, 2009).

Not all professional development practices result in professional growth, but all professional growth requires professional development practices (Nokelainen, 2008). The atmosphere of an HEI has been shown to be a determining factor in the professional growth of its staff (Nokelainen, 2008; Nokelainen & Ruohotie, 2009; Ruohotie, 1996a, 1996b, 1999; Ruohotie & Nokelainen, 2000).

It is suggested that an HEI should create an atmosphere that encourages staff members' lifelong learning (London & Smith-er, 1999; O'Meara, Terosky, & Neumann, 2008). In the words of Ruohotie (1996a), 'In order to be successful, educational organisations must provide effective professional development programs for employees over the entire course of their career' (p. 419). Rowley (1996) says that 'higher education is by culture a developmental environment' (p.14). Rowley therefore assumes that the culture of an HEI fosters its staff's growth by default.

Professional growth has been studied in the Management field under the term learning organization. A learning organization, as defined by Senge (1990), is a place where 'people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together' (p. 3). As a learning organization, the HEI enables its staff members to identify with its aims and strategies, it responds rapidly to change, it questions its mode of operation, it is willing to take risks, it accepts correction and learns from errors (Brancato, 2002; Nokelainen, 2008). Many strategies for creating a learning organization have been suggested in the literature (Bui & Baruch, 2010;

Marsick & Watkins, 2003; Ruohotie, 1996b, 1999; Senge, 1990). For example, Brancato (2002) contended that the HEI should offer its staff members activities which employ the five components of a learning organization: personal mastery, team learning, mental models, shared vision and systems thinking (see Senge, 1990). In a learning organization, it is not only the responsibility of the staff to learn continuously, it is also the responsibility of the institution to create and maintain a culture of learning (Nokelainen, 2008). The institution should support, invest in and reward staff members' learning. Marsick & Watkins (2003) contend that:

"When individuals increase their capacity to learn, they can (collectively) enhance the overall capacity of the organization to learn as long as the organization is receptive to their efforts to use their learning and puts in place appropriate mechanisms to enable, support, and reward the use of what is learned." (p.136)

In research conducted as part of the Growth Needs Project in Finland, Ruohotie (1996a, 1996b, 1999) studied the atmosphere factors contributing to professional growth. Ruohotie and Nokelainen (2000) proposed a 14 dimensional theoretical model for a growth-oriented atmosphere. Later, Nokelainen and Ruohotie (2009) reduced the model to four major factors, divided into 13 sub-factors, as shown in Figure 2, on page 16.

The four main factors of the Growth-oriented Atmosphere model are (1) supportive and rewarding management (SRM), (2) supportive value of the job (SVJ), (3) operational capacity of the team (OCT), (4) personal attitudes towards the work (PAW).

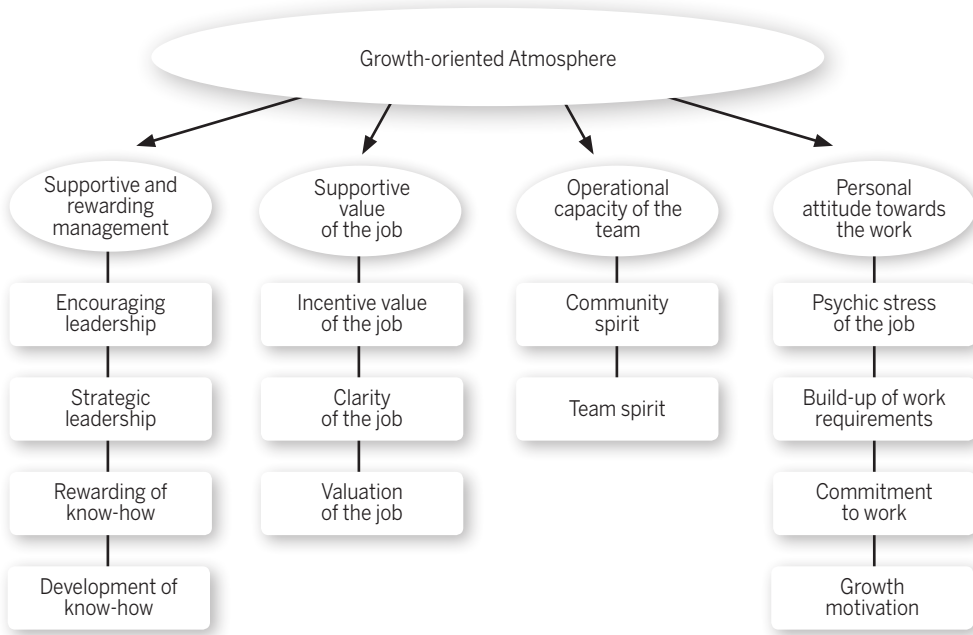


Figure 2. Growth-oriented Atmosphere model adopted from Nokelainen and Ruohotie (2009)

Relationship between organizational culture and professional growth

An organization's culture has a critical effect on professional growth. Bui and Baruch (2010) argue that an organization's culture is the antecedent for professional growth factors such as a shared vision and team learning. Mulford and Silins (2005) found that the promotion of a culture of caring and trust is one of the leadership requirements for encouraging continuous learning. The results of a study by Raj and Srivastava (2013) reveal that organizational learning mediates the relationship between the clan, adhocracy and market cultures, human resources management practices and innovativeness. In other words, they suggest that in order to 'increase learning and innovativeness, organizations have to focus on building a culture that incorporates a sense of competitiveness and market leadership and at the same time, provide employees flexibility,

autonomy, opportunities for growth and rewards them for their contributions' (Raj & Srivastava, 2013, p. 201). In short, the literature consistently indicates that the clan and adhocracy cultures are positively related to an organization's effectiveness, innovativeness and learning (Ashraf, Kadir, Pihie, & Rashid, 2013; Cameron & Ettington, 1988; Smart & John, 1996; Sokol, Gozdek, Figurska, & Blaskova, 2015).

Method

Sample and procedures

The study included a non-probability sample of Finnish staff members working at Tampere3 institutions during the 2015/2016 academic year. The target population included three HEIs in Tampere: two universities (UTA and TUT) and one university of applied sciences (TAMK). Table 1 outlines the three HEIs in relation to the Finnish higher education system.

Table 1. Brief description of the three HEIs in Tampere

Finnish Higher Education System			
	Universities		Universities of Applied Sciences
Mission	To conduct scientific research and provide instruction and postgraduate education based on it.		To train professionals in response to labour market needs.
Institution	University of Tampere	Tampere University of Technology	Tampere University of Applied Sciences
Category	Public corporation	Foundation	Applied university
Discipline	Multi-discipline	Concentrates on technology and architecture	Multi-discipline
Number of Students	21,503	8,895	10,000

Source: Ministry of Education and Culture of Finland (2016a, 2016b, 2016c), UTA (2015), TUT (2015a), TAMK (2016a, 2016b).

As shown in Table 1, the Finnish higher education system consists of two complementary sectors: universities of applied sciences (UAS) and universities. Since 2009, Finnish universities can either be independent corporations under public law or foundations under private law (the Foundations Act) (Ministry of Education and Culture of Finland, 2016b). TAMK is an independent limited company owned by the City of Tampere and others (TAMK, 2016b). UTA is an independent corporation under public law (Ministry of Education and Culture of Finland, 2016b), while TUT has been operating as a foundation since 2010 (TUT, 2014).

A total of 342 staff members responded to the online questionnaire, with 322 responses being valid for data analysis. Table 2 shows the distribution of the sample between the Tampere3 institutions together with the method used to publish the questionnaire.

Different methods were utilized to collect data from the population. In UTA, an email was sent to 1014 staff members inviting them to respond on the online questionnaire which was built on a UTA survey management system called 'elomake'. In TUT and TAMK the same online questionnaire was published on the

Table 2. Sample distribution and the method used in publishing the questionnaire

	N		Response rate	Method of publishing the questionnaire
	Collected	Valid		
UTA	124	119 (37%)	12%	Email
TUT	130	122 (38%)	9%	TUT's intranet
TAMK	88	81 (25%)	11%	TAMK's intranet
Total	342	322 (100%)		

institutions' intranets. Publishing and follow up procedures took place between June and November 2016. Valid responses were received from 151 (47%) males and 171 (53%) females. The average age of the participants was 46 years ($SD = 11.187$, range 20-67). The average higher education job experience of the participants was 178 months (about 15 years) ($SD = 116.349$, range 2-480 months). The majority of participants were from the academic staff (71%, $n = 229$). The educational level was distributed as follows: Bachelor (7%, $n = 24$), Master (41%, $n = 131$), Doctorate/Post Doc (15%, $n = 47$), Professor/Docent (17%, $n = 56$), and others (20%, $n = 64$). The sample was distributed according to Becher's (1981, 1994) classification into two academic disciplines, Soft (39%, $n = 126$) and Hard (36%, $n = 115$). Participants who didn't report their school were classified as Other (25%, $n = 81$). It is worth mentioning that Becher's classification included another dimension: pure/applied. This study used only the soft/hard dimension because the number of valid responses was insufficient for conducting a comparison based on two dimensions.

Instruments

Two instruments were adopted to serve the aims of this study: the Organisational Culture Assessment Instrument (OCAI) and the Growth-Oriented Atmosphere Questionnaire (GOAQ). An online questionnaire was developed on UTA's elomake. The questionnaire consisted of two sections: the first section collected personal information (demographic variables) and the second section was dedicated to OCAI and GOAQ items.

Organisational culture: The OCAI was adopted, translated into the Finnish lan-

guage and piloted in order to measure staff members' perceptions of their schools' culture. The OCAI was devised by Cameron and Quinn (1999, 2006) and is based on the Competing Values Framework (CVF). CVF is the framework most used in the higher education context (Cai, 2008; Kleijnen, Dolmans, Muijtjens, Willems, & Van Hout, 2009). The OCAI's validity and reliability in measuring an organisation's culture have been confirmed in other studies (Cameron & Quinn, 2006; Heritage, Pollock, & Roberts, 2014; Jung et al., 2009). The OCAI consists of 24 questions: six for each of the four cultures. The Likert scale was used, ranging from 1 (strongly disagree) to 5 (strongly agree).

In the current study, the OCAI demonstrated sufficient reliability in three cultures (Cronbach's α coefficients for Market = 0.87, Clan = 0.81, Adhocracy = 0.82) and questionable reliability in the Hierarchy culture ($\alpha = 0.63$). This might be congruent with the findings of another study which suggested that the Hierarchy factor should be adjusted (Heritage et al., 2014).

Professional Growth: The Growth-oriented Atmosphere Questionnaire (GOAQ) was used to measure staff members' perceptions of their schools' growth climate. The questionnaire was developed in the Finnish higher education context (Nokelainen & Ruohotie, 2009; Nokelainen, Ruohotie, Silander, & Tirri, 2003; Nokelainen, Silander, Ruohotie, & Tirri, 2007; Ruohotie, 1996a, 1996b, 1999; Ruohotie & Nokelainen, 2000). The latest version of the GOAQ consists of 26 items representing 13 sub-factors. A five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree), was used. Reliability was measured for the

four main factors of GOAQ, and three factors showed sufficient reliability (Cronbach's α coefficients of SRM = 0.84, SVJ = 0.79, OCT = 0.85), whereas the PAW factor showed questionable reliability (α = 0.61).

Statistical Procedures

Data analysis utilized Means for answering RQ1 and RQ3; Two-Independent Samples t-test and One-way ANOVA were used for answering RQ2 and RQ4; and the Pearson Product-Moment Correlation for answering RQ5.

Results

Staff members were asked to indicate their perceptions about their school's culture. Therefore, the unit of analysis was the school. As mentioned previously, the study examined the perceived culture at four levels:

1. Tampere3 institution as a whole,
2. academic profession (academics and administrators),
3. discipline (hard or soft), and
4. each HEI (UTA, TUT, and TAMK).

In addition, the study examined if differences in the schools' cultures depended on demographic variables such as gender, age, and job experience.

RQ1. How do Tampere HEI staff members perceive their school's culture?

The mean was computed for each culture type at the Tampere3 level. The results showed that all means were relatively close to the neutral value (3 on a range of 1–5): Hierarchy ($M = 2.95$, $SD = 0.561$), Market ($M = 2.46$, $SD = 0.764$), Clan ($M = 3.05$, $SD = 0.668$) and Adhocracy ($M =$

2.89, $SD = 0.686$). These results indicated that the four cultures were moderately experienced throughout Tampere3. However, there was a slight tendency towards the Clan and Hierarchy cultures. That is to say, the culture of Tampere3 concentrates more on internal integration, harmony and unity. The Adhocracy culture score, which emphasizes innovation and rapid change, was not far below the Clan and Hierarchy scores. Therefore, Tampere3 might experience a paradox (Cameron, 1986). The Market culture scored lower than the other three cultures. In other words, staff members did not see their school's culture as tending towards competitiveness and goal achievement.

RQ2. Are there significant differences in the perception of a school's culture when staff member's institution, job type, discipline, gender, educational level, age or job experience are considered?

One-way ANOVA was conducted to analyse the differences between the Tampere3 institutions (UTA, TUT and TAMK). The results indicated that there were no significant differences between the mean scores of the three HEIs in either the Clan or Adhocracy cultures. More specifically, staff members from the three institutions tended to agree on the degree of flexibility, dynamism and self-regulation in their institutions. There were, however, significant differences in the Market [$F(2,318) = 5.85$, $p = .003$] and Hierarchy [$F(2,319) = 7.69$, $p = .001$] cultures. Post hoc comparisons using the Tukey HSD test showed that TUT staff members perceived their school as tending towards a Market culture ($M = 2.64$, $SD = 0.711$) to a greater extent than their counterparts at UTA ($M = 2.38$, $SD = 0.791$) and TAMK ($M = 2.30$, $SD = 0.757$). TUT staff mem-

bers also perceived their school as tending less towards a Hierarchy culture ($M = 2.80, SD = 0.511$) than their counterparts at UTA ($M = 3.07, SD = 0.531$) and TAMK ($M = 3.01, SD = 0.629$). There-

fore, the main differences between the three institutions referred to differences between TUT and the other two universities.

Table 3. Sample score in OCAI divided by institution

	UTA		TUT		TAMK	
	M	SD	M	SD	M	SD
Hierarchy	3.07	0.531	2.80	0.511	3.01	0.629
Market	2.38	0.791	2.64	0.711	2.30	0.757
Clan	3.05	0.637	2.95	0.721	3.17	0.616
Adhocracy	2.80	0.699	2.95	0.632	2.95	0.737

The study then examined whether there were differences between the academics and the administrators (based on a 'Job Type' variable). The results of the Two-Independent Samples t-test showed that the academics perceived their school's culture as externally oriented (Adhocracy and Market cultures) more than the administrators, who perceived their schools as tending more towards a Hierarchy culture, as shown in Table 4.

The study went on to identify more deeply the differences between the academics themselves based on their disciplines (either hard or soft). Two-Independent Samples t-test showed that, regardless of which discipline the academics were working in, they perceived their school's culture as almost the same, except

in relation to Market culture. Those working in the hard disciplines ($M = 2.69, SD = 0.726$) perceived their schools as heading more towards a Market culture than those working in the soft disciplines ($M = 2.48, SD = 0.689$); $t(218) = 2.21, p = .028$.

Furthermore, Two-Independent Samples t-test showed that males perceived their school's culture as externally oriented (Adhocracy and Market) more than females did, as shown in Table 5.

The study sought also to identify whether there were differences in cultural perceptions between staff members who had attained different educational levels (bachelor, master, doctorate/post doc, professor/docent, or other). A one-way

Table 4. Comparing the cultures of academics and administrators using the t-test

	Academics		Administrators		t(df)	Sig (2-tailed)
	M	SD	M	SD		
Adhocracy	2.99	0.652	2.63	0.704	4.43(319)	<.001
Market	2.56	0.733	2.21	0.787	3.77(319)	<.001
Hierarchy	2.85	0.548	3.22	0.502	-5.73(320)	<.001

Table 5. Comparing males' and females' cultures using the t-test

	Males		Females		t(df)	Sig (2-tailed)
	M	SD	M	SD		
Adhocracy	3.04	0.648	2.76	0.694	3.78(319)	<.001
Market	2.64	0.749	2.29	0.741	4.19(319)	<.001

ANOVA test showed a significant effect of the educational level variable on the Hierarchy culture mean score [$F(4,317) = 4.187, p = .003$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score of bachelors ($M = 3.07, SD = 0.637$), masters ($M = 2.99, SD = 0.532$), and others ($M = 3.06, SD = 0.594$) were significantly different from the mean score of professors or docents ($M = 2.69, SD = 0.467$) in perceiving the school as having a Hierarchy culture. Generally, staff members with lower educational levels (bachelors, masters and others) perceived their school's culture as tending more towards a Hierarchy culture than the professors or docents.

Finally, no significant differences were detected between staff members' perceptions based on their category of age or job experience.

One may notice that the differences reported between HEIs (UTA, TUT and TAMK) in terms of gender (males and females), job types (academics and administrators) and disciplines (hard and soft) all referred to perceptions of Market culture. In addition, the TUT sample had more males than females, more academics than administrators, and most of its schools are classified as hard disciplines. These factors prompted us to run an extra analysis to see if the differences reported were in fact due to one factor and not the others. It is important to note that the job type variable (academics and administra-

tors) implicitly included the discipline variable because discipline divides only the academics into soft and hard. Therefore, the discipline variable was excluded from the subsequent analysis. To examine the differences, a two-way ANOVA test was conducted using 'university', 'gender' and 'job type' as the independent variables with Market mean score as the dependent variable. The results showed no significant interactions between the variables, and therefore each variable had its own effect on the Market mean score independently of the other variables. The effects were found to be significant only for the gender variable [$F(1,309) = 4.87, p = .028$], while both university [$F(2,309) = 3.01, p = .051$] and job type [$F(1,309) = 3.21, p = .074$] approached the significant value with a level $p < .05$.

RQ3. How do staff members perceive the growth atmosphere of their school or department?

This study examined the growth atmosphere at the Tampere3 level. Interestingly, the results showed that the Tampere3 school atmosphere encouraged professional growth since the mean score in the GOAQ was above the average ($M = 3.50, SD = 0.503$) on a range of 1–5. Details of the responses on the GOAQ factors also supported the conclusion that the Tampere3 school atmosphere motivates professional growth. SRM ($M = 3.22, SD = 0.707$), SVJ ($M = 3.67, SD = 0.641$), OCT ($M = 4.02, SD = 0.747$), and PAW

($M = 3.40$, $SD = 0.555$) were all above the average. It was evident that staff members strongly perceived their school as having a supportive team and community spirit.

RQ4. Are there significant differences in perception of growth atmosphere when staff member's institution, job type, discipline, gender, educational level, age or job experience are considered?

No significant differences in the GOAQ mean score were found based on these demographic variables except for educational level. The one-way ANOVA test showed a significant difference between educational level categories [$F(4,317) = 2.809$, $p = .026$]. Post hoc comparisons using the Tukey HSD test indicated that the professors' mean score for GOAQ ($M = 3.66$, $SD = 0.47$) was higher than the mean score of staff with educational qualification less than a bachelor's degree ($M = 3.37$, $SD = 0.53$).

RQ5. How does the culture of the Tampere3 institutions relate to a growth atmosphere?

A Pearson Product-Moment Correlation coefficient was computed to assess the relationship between cultures and growth atmosphere. There were moderate positive correlations between both Clan and Adhocracy scores and the growth-oriented atmosphere score ($r = .67$, $p < .001$; $r = .56$, $p < .001$, respectively). Scatter plots summarize these results (Figure 3 and Figure 4). In other words, the more staff members perceived their school as tending towards the Clan and Adhocracy cultures, the more they perceived the atmosphere as supportive of their professional growth.

Details of the relationships between culture types and the four main factors of GOAQ provide insights into how different culture types encourage or discourage professional growth.

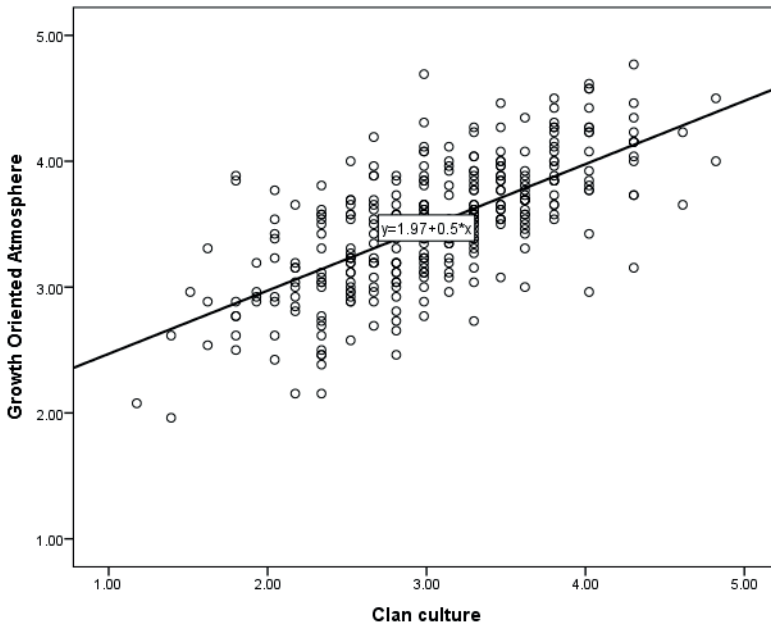


Figure 3. Scatter plot shows the relationship between Clan culture and Growth-oriented Atmosphere

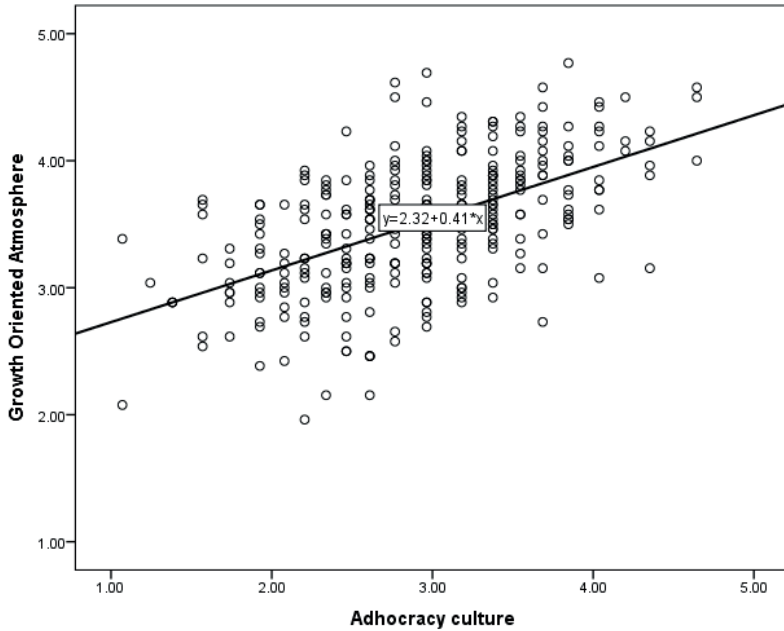


Figure 4. Scatter plot shows the relationship between Adhocracy culture and Growth-oriented Atmosphere

The general observation, as demonstrated in Table 6, is that both Clan and Adhocracy scores were significantly and positively correlated with all sub-factors of GOAQ at level $p < .01$. However, the Clan culture correlation was slightly stronger than that of the Adhocracy culture in all sub-factors. Both the Clan and Adhocracy cultures were correlated moderately with

SRM, and SVJ; whereas they had lower correlations with OCT, and PAW. On the other hand, there was little if any positive correlation between the Hierarchy culture and the SRM sub-factor. One also should notice that Market culture was negatively correlated with the two sub-factors (SVJ and PAW), although the correlations were small if any.

Table 6. Pearson Product-Moment Correlations of culture types with GOAG's four factors

	SRM	SVJ	OCT	PAW
Hierarchy	.17**	.09	.03	-.04
Market	.02	-.13*	-.03	-.17**
Clan	.66**	.60**	.46**	.30**
Adhocracy	.57**	.50**	.37**	.24**

* $p < .05$, ** $p < .01$

Discussion

This study aimed to explore the culture and growth atmosphere at Tampere3 institutions together with the relationship between culture and atmosphere. The aim was to see if the Tampere3 culture and atmosphere support the acceptance and adoption of new initiatives. The results revealed that both the Clan and Adhocracy cultures are moderately experienced in Tampere3 and that they both support a growth-oriented atmosphere. Since the common dimension between the Clan and Adhocracy cul-

Giving staff members the space and freedom to manage themselves will implicitly encourage their professional growth.

tures refers to flexibility, individuality and spontaneity, it is safe to say that this dimension is one that will encourage professional growth. In other words, giving staff members the space and freedom to manage themselves will implicitly encourage their professional growth. A study by Smart and John (1996) tracked cultural effectiveness in American HEIs and found that those with Clan and Adhocracy cultures were more effective in eight and six out of nine dimensions, respectively. Among those nine dimensions, three are similar to the GOAQ sub-factors: Professional Development and Quality of the Faculty, Faculty and Administrator Employment Satisfaction, and Organisational Health. Their findings that Clan and

Adhocracy cultures have higher means on those three dimensions are congruent with our results. Similar findings were also reported by Cameron and Ettington (1988) who found that institutions with a dominant Adhocracy culture are more effective in promoting academic development, and that institutions with a dominant Clan culture are more effective in maintaining organisational health and faculty satisfaction. Our results confirm these earlier findings and emphasise their applicability in the Finnish higher education context.

No institution has been characterized as having a pure culture type (Cameron & Ettington, 1988; Smart & John, 1996). Tampere3 institutions experience almost all culture types in their schools even though the dominant culture can be seen to be Clan. Berrio (2003, p. 8) indicated that almost two-thirds of colleges and universities in the USA have a dominant Clan culture. It seems that working in academia by its nature supports academics' autonomy and discretion (Cameron & Ettington, 1988; Rowley, 1996), and this may explain why most HEIs are dominated by a Clan culture (Smart & John, 1996). HEIs' administrators should therefore be aware of the pros and cons of the Clan culture. On the one hand, a Clan culture usually scores high in the morale domain of an institution's effectiveness: staff members are highly committed and loyal to their institution, the institution's image concerns them and they seek to maintain it, and therefore their skills may be developed as part of their commitment to their institution. On the other hand, a Clan culture pays little attention to international competition and this may discourage openness to global changes and challenges. A Clan culture also imposes little control over resource usage, which means that resources may not be optimally utilised.

Dividing the sample on the basis of demographic variables, this study revealed that there are sub-cultures in Tampere3 and that these are different from the dominant culture, Clan. Based on their job types, staff members who work as academics see their school's culture as heading externally, towards Adhocracy and Market cultures, as opposed to the administrators, who see their schools as heading towards the Hierarchy culture. The results also showed that staff members who are working in the hard disciplines perceive their schools as heading towards a Market culture more than those who work in the soft disciplines. In addition, males experience their schools' culture as externally oriented towards Market and Adhocracy more than females do. Finally and interestingly, staff members with lower educational levels (namely bachelor, master and other) see their schools as heading towards a Hierarchy culture more than the professors and docents. This is interesting because we asked staff members who are working in the same school to report what their school's culture really is: those with lower educational levels still see their school's culture as a Hierarchy. In other words, they see that the glue that holds their school together is the rules, laws and regulations.

The existence of sub-cultures in an institution is a normal phenomenon. That is because different departments normally require different types of culture. As described by Cameron and Quinn (2006), it is common to see that the HR department has developed a Clan culture, whereas the financial department has developed a Hierarchy culture. The major thing that should be taken into consideration, however, is the difference in culture perception between the academics and the administrators (Peterson & White, 1992),

or between the professors and the other staff members. Tampere3's administration needs to make an effort to arrive at an understanding of why staff members working in one school or department see the glue between members, the leadership style, the departmental criteria of success, and the departmental strategic goals differently.

TUT, TAMK and UTA have much in common. They all share similar scores for Clan and Adhocracy cultures. Their mean scores for Clan are around the average (3 on a scale ranging from 1 to 5), while their mean scores for Adhocracy are below average. Since an Adhocracy culture supports innovation, change and creativity, one may infer that acceptance of new initiatives in Tampere3 institutions may not be rapid: staff members may resist changes affecting their regular work styles. Although all Tampere3 institutions agree on Clan and Adhocracy, TUT seems to have a unique orientation towards a Market culture and a tendency to move away from the Hierarchy culture. This is somewhat unexpected since our initial assumption was that TAMK might have developed a different culture because it is a university of applied sciences in comparison to UTA and TUT which are universities (Ministry of Education and Culture of Finland, 2016a). In an attempt to understand why TUT appears to be different, the study referred to two sources of organisation-based information: (1) the vision, mission and strategic plans, and (2) the structural and financial system of all three institutions.

The strategic plans for the Tampere3 HEIs for 2016-2020 show different trends and visions, even if they all three agree on their external orientation. The UTA strategic plan consists of three Adhocracy ori-

ented goals and only one Clan oriented goal (UTA, 2016). Multidisciplinary research, the latest research-based knowledge and learning, and internationality are all oriented towards an Adhocracy culture, while university community, which emphasises the well-being of all staff members, is oriented towards the Clan culture. In their own words, 'In order to advance multidisciplinary in its operations, the University will remove administrative barriers. It will support innovative research through strategic allocation of funding, creation of new infrastructures and multidisciplinary research hubs' (UTA, 2016, p. 12). Similarly, the TAMK strategic plan has two Adhocracy, one Clan and one Market oriented goals (TAMK, 2016c). TAMK aims to be 'The best professional higher education that Finland offers to the world' (TAMK, 2016c). At the same time, it wants to maintain 'a sense of community' and a 'respect for the individual and individual differences' (TAMK, 2016c). In contrast, it is evident that TUT has a stronger orientation towards the Market and Adhocracy cultures. Its strategic plan consists of four Market, four Adhocracy, and only one Clan oriented goals, while its indicators are clearly dominated by Market statements (TUT, 2015b). It aims to 'contribute to the creation of new business opportunities, companies and jobs arising from "our" research' and to 'strengthen the industrial competitiveness and export industry of Finland' (TUT, 2015b, p. 2). TUT states that they 'support the commercialization of research results and the establishment of new companies' (TUT, 2015b, p. 2). TUT aims to support professional growth by offering challenging tasks, high-quality facilities and performance-based pay (TUT, 2015b, p. 2). Clearly, the orientation towards a Market culture in TUT is different. Regarding the structural and financial system, Table 1,

with its description and information, may elucidate something of the differences between TUT and both UTA and TAMK.

One may notice that there is incongruence between the Tampere3 HEI's strategic plans and their current cultures: while all the plans tend externally towards internationalisation and competitiveness, staff members see their school cultures as currently tending internally towards integration and unity. A justification for this incongruence may be the fact that their strategic plans are actually for the period 2016 to 2020. Therefore, they may still be in the early stages of a culture change process. However, it would seem that TUT, in contrast to UTA and TAMK, has partially succeeded in dragging its staff members towards internationalisation and competitiveness.

The tendency toward internationalisation seems to be in response to a report from the Ministry of Education and Culture of Finland (2009) – Internationalisation Strategy, 2009–2015. Internationalisation has also been discussed in many Finnish studies (Cai, Hölttä, & Kivistö, 2012; Crawford & Bethell, 2012; Saari-nen, 2012) in which they indicate that 'Internationalizing higher education systems is one means to address globalization challenges' (Crawford & Bethell, 2012, p. 189). HEIs that plan to change in the direction of innovation and creativity (an Adhocracy culture) may not be affected in relation to the professional growth atmosphere since both the Clan and Adhocracy cultures are found to be in support of professional growth, as suggested by the findings of both the current and other studies (Cameron & Ettington, 1988; Smart & John, 1996). This change, if it happens, will foster the possibilities of adopting new initiatives. HEIs that plan

to change towards competitiveness and goal achievement (the Market culture) need to understand the consequences of this choice for their professional growth: the current study finds a lack of correlation between the Market culture and professional growth. Furthermore, the study finds a small negative correlation between Market culture and staff commitment and satisfaction. This is in agreement with the findings of Smart and John (1996) and Heritage et al. (2014), both of which found that Market culture has a negative effect on employee satisfaction. A change in culture from flexibility to control may make staff members feel as though the institution has lost its warm and friendly atmosphere. This, in turn, decreases their commitment and satisfaction (Cameron & Quinn, 2006). Culture change needs to be well planned and directed. When planning for culture change, an institution should consider two points: (1) the desired culture should respond to the environmental demands, (2) there should be a matching between the institution's long-term goals and its actual practices (Cameron & Quinn, 2006).

A general limitation of this study is that the number of participants was not sufficient for the results to be generalised. It proved challenging to collect responses from busy staff members. Future studies could target a large-scale sample from Tampere3 but under administrative custody. The Tampere3 institutions seem to be in the middle of a culture change process and plan to merge into one HEI. Further studies could track culture changes over the years together with the final post-merger culture.

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