

Greenacre, L., Freeman, L., Cong, K & Chapman, T. (2014) 'Understanding and Predicting Student WOM', *International Journal of Educational Research*, 64, 40-48

Introduction

Higher Education (HE) institutions are seeing almost unprecedented changes in funding and stakeholder expectations. In many western countries student fees are increasing, often in response to lower government funding for universities. One outcome is that students' have evolved to focus heavily on obtaining return on investment from their learning (Keane, 2012; Spronken-Smith, Bond, Buissink-Smith and Grigg, 2009). These changes are leading HE managers to adopt commercial marketing practices with a view to better communicate key information to potential students with the hope of maintaining, and possibly, increasing their share of applications (Kalafatis and Ledden, 2012; Molesworth, Nixon, and Scullion, 2009; Mazzarol, Soutar and Seng, 2003; Moogan, 2010). The management of Word of Mouth (WOM) communication is one such commercial practice that continues to attract considerable interest in the HE sector (Bruce and Edgington, 2008; Patti and Chen, 2009; Teo and Soutar, 2011).

The challenge presented by WOM is that embracing it as a means to communicate to potential students about the HE institution cedes control over marketing messages to the consumer and not the marketing manager (Frenzen and Nakamoto, 1993; Kalafatis and Ledden, 2012; Ng and Forbes, 2009). Relinquishing control of what information is being spread about the institution raises an interesting issue; how can a university, that now has little control over marketing messages, adequately plan a communications strategy that can reach potential students? At the most basic level an institution needs to know if a particular favourable or unfavourable message is likely to be communicated. A favourable message can be supported through marketing effort, while an unfavourable message will require corrective action to be taken (Khare, Labrecque and Asare, 2011).

In either case, for effective strategic planning, an HE institution needs to be equipped with knowledge about what potential students will talk about when discussing the institution and its offerings (Patti and Chen, 2009). Present research provides little guidance for managers facing this issue. Most attempts at understanding precisely what people communicate by WOM rely heavily on a posterior analysis of what has already been said (Patti and Chen, 2009; Wangenheim and Bayon, 2004). This could include analysis of online blogs and chat rooms, surveys with prior students, and evaluation of other records of interpersonal communications (Croft, Boddy and Pentucci, 2007; Patti and Chen, 2009). While such research is useful for understanding how consumers have behaved in the past, it is not necessarily useful in understanding WOM behaviour in the future. In HE markets in particular, the (potential) consumers being served by the HE institution change each year as new students seek to commence their studies and others finish. The focus of this paper is thus on understanding WOM in the HE sector, and as a by-product, developing a theoretically relevant procedure that allows us to *predict* what content will be communicated by WOM among potential students groups.

Students as Senders of WOM Information

At the individual level WOM is the communication of information from one person, a sender, to another person, a receiver (Frenzen and Nakamoto, 1993). These people

can be any stakeholder, but in this case we are specifically interested in the peer communication among potential students. Peer to peer communication has been identified as being of particular importance to this age group, characterised as Generation Y, when they are making choices (Williams and Page, 2011). An earlier phase of this research confirmed (in press) that this was the case when students were deciding which HE institutions to apply to. Both the actions of the sender in determining what to communicate, and the receiver in determining what they will seek out, listen to and use are important when predicting the content that will flow by WOM among students (Patti and Chen, 2009; van Noort, Antheunis and van Reijmersdal, 2012).

Considerable research has focused on the receiver and their search for information (Gilly et al., 1998; Price and Feick, 1984; Simões and Soares, 2010). While the receiver is important we argue that they are subordinate to the sender. Regardless of the wishes of a receiver, the sender determines the specific information content a receiver will obtain, or in some cases will not obtain. Past research has stressed that the perceived impartiality of the sender is a mechanism for creating trust in the receiver, leading to real changes in consumption decisions (Chan and Ngai, 2011; Cruz and Fill, 2008). Therefore it is critical to focus on understanding and modelling the behaviour of senders when determining the messages potential students acting as senders are likely to communicate by WOM (Frenzen and Nakamoto, 1993).

As with any social behaviour a broad range of components to sender behaviour can be considered. The literature particularly focuses on two; the selection of a *partner* with whom to exchange information, and the selection of the *information* content comprising the WOM message (Bruce and Edgington, 2008; Frenzen and Nakamoto, 1993; Step and Finucane, 2002). The choice of *partner* with whom to exchange information has received little attention in the literature; although numerous studies have identified general difference in WOM behaviour based on whom a person, or student, is talking to. For example, difference in communication content can be found amongst senders and receivers of different genders, relationship types, and cultural demographics (Awad and Ragowsky, 2008; van Noort, Antheunis and van Reijmersdal, 2012). This indicates that to offer realistic insight into student WOM any models of WOM must recognise differences in various student groups.

The selection of *information* content, the other main focus of WOM research, often only examines a message's valence. Whether WOM is positively or negatively disposed to the object being discussed is the most common description of information content (Doh and Hwang, 2009). What much of this research neglects is that WOM can offer much more diagnostic insight into the nature of a product or service, in this case helping a potential student evaluate an HE institution, rather than just stating whether it is generally 'good' or 'bad'. Some research has considered the co-creation of understanding that can arise through WOM, presenting a much richer examination of WOM content (Cova, Pace and Park, 2007). Unfortunately, such research offers no mechanism to predict future WOM and too often neglects the dominant role of the sender in determining the nature of information content being exchanged.

Understanding Student WOM: Motivations and Behaviours

A potential student acting as a WOM sender is able to derive rewards from their participation in a WOM exchange. These rewards can arise from such things as serving the needs of themselves, for example not sharing knowledge about courses with limited enrolment (Rubin and Martin, 1988; Sakalaki, Richardson and Thépaut, 2007); serving the needs of their exchange partner, for example helping a trusted friend choose the 'right' course for them (Montero, 2008); or even serving the needs of the institution being discussed, for example if they are emotionally attached to it due to a family members' previous attendance (Aspara et al., 2008). The sources of these rewards are often cited in literature that considers the motivations underlying WOM exchanges (Sundaram, Mitra and Webster, 1998). This notion of reward selection gives insight into how motivation is shaped by the sender student.

Using this insight it can be asserted that given the precise reward combination sought, a potential student will *choose WOM behaviour that maximises the probability of obtaining these rewards*. Such an assertion complies with utility maximisation established within random utility theory and provides an account for what *motivates* a sender to undertake WOM communication (Ben-Akiva and Lerman, 1985). The behaviour of information selection, which is the focus of this paper, would thus be done in an attempt to obtain such rewards.

Measuring and Predicting WOM Behaviour

The aim of this research is to understand WOM in the HE sector through the development of application of a theoretically relevant measurement method that can predict student WOM. The theoretical conceptualisation proposed required us to employ two measurement instruments. The first was a sequence of focus groups. These were intended to provide insight into the key features of student WOM and the nature of the decision making process students employ. The second instrument was a choice based experiment that modelled students' decisions to communicate information by WOM. The choice experiment phase provides the probabilities that certain types of information would be communicated to a peer by WOM.

A large HE institution in Australia was chosen as a basis to explore WOM among potential students. This research was done with the cooperation of the HE institution and the results of the research were incorporated into the institution's marketing strategy.

The final year high school students who formed the sample for the research were all born before 1994 making them members of the Gen Y. A generation noted for the importance that they place on their interactions with their peers and the trust that is placed in communications issuing from their peers. (Stone et. al. 2001; Williams and Page, 2011). All were familiar with the HE institution that formed the basis of this research.

Phase 1 –Focus Groups

The first phase was open-ended and exploratory in nature. It asked 'how' and 'what' final year school students' choose to communicate with their peers regarding applying for university and about the universities themselves. Qualitative research is

interpretative and inductive, open to unanticipated events, focusing on naturally occurring, socially constructed processes and meanings (Denzin and Lincoln, 2000 p. 264; Gephart Jr, 2004). It is therefore especially useful in the exploratory stages of theory development (Tesch, 1990). This phase of the research identified the processes used by respondents to select information to pass on to prospective students engaged in selecting a university, in essence the rules senders use to select messages for receivers. The purpose of this identification was to allow appropriate model selection during the following choice modelling phase. For example, 'if' rules may have existed where *IF* one piece of information was presented *THEN* another piece of information may or may not be passed on resulting in a nested logit model.

Also of interest was the vocabulary used in these communications. This was needed to give first insight into how students communicate about the institution. Understanding the key language constructs is vital to understanding the meaning respondents are conveying. It also allows for the development of a more valid choice experiment. A supplementary objective for this phase was the validation of the key attributes of the university that students would describe in their communications, all of which had already been identified in previous research undertaken by the institution itself and substantiated by published research. The key attributes identified were: the location of the institution in terms of ease of access and surroundings (Location)(James, Baldwin and McInnis, 1999; Moogan and Baron, 2003); graduate employment prospects (Employment) (Veloutsou, Lewis and Paton, 2004; Bruce and Edgington, 2008); the range of delivery of learning, such as distance, part-time, block, offered (Flexibility) (James et al, 1999; Callender and Jackson, 2008); quality of teaching and academic reputation (Teaching) (Maringe, 20006; Ng and Forbes, 2009); and the quality of the Social life (Social) (James et al., 1999). An additional attribute, facilities, was discussed but was not identified as being key to decision making.

A total of 10 focus groups with 8-10 participants were run. Locations for the groups were selected purposively with each group coming from the final year of a single high school. Schools were selected to represent key demographic variables including their location, administration (public or private), student gender mix (all male, all female and mixed), and the schools' religious affiliation (Christian, Other Religion, non-religious).

Recordings of the groups were transcribed and the transcriptions annotated with observations made during the focus groups. The analysis was iterative and reflexive whereby as new insights emerged the prior components of the transcripts were reread before further analysis was undertaken. The method of analysis was a hybrid of holistic interpretive techniques (Birkinshaw, Brannen and Tung, 2011; Ereaut, 2002) and a basic content analysis (Braun and Clarke, 2006). This iterative approach ensured a systematic, comprehensive and exhaustive analysis (Denzin and Lincoln, 2000 p.264; Gephart Jr, 2004).

Phase 2 – Discrete Choice Experiment

As a consequence of the qualitative findings of phase 1, a choice based experiment was developed that provided respondents with sets of statements from which they were to select the statement they would choose to communicate to a peer.

The statements were developed based on the five broad key features of the university discussed above. The five features used in the statements, and the basis for subsequent analysis, were: Location, Employment, Flexibility, Teaching and Social.

Each statement that could be communicated by WOM by a student was designed to be a combination of facts concerning all of these key university features. Each university feature could have either a positive fact, or a negative fact expressed about it. For example, for the feature Location, either a positive fact of it being 'easy to get to' could be expressed, or the negative fact of it being 'hard to get to'.

To organise the positive and negative facts regarding all the key university features into statements a fractional factorial experimental design was used. The fractional factorial design ensured that each statement had a unique combination of positive or negative facts for *all* university features. The experimental design guaranteed that subsequent models of student choices were capable of detecting whether a particular university feature was being used by students when choosing the statements to communicate, or if any particular pair wise combination of features was being used (Kuehl, 2000).

The statements then needed to be organised into sets so that they could be presented to student to choose amongst. These choice sets were constructed using a Balanced Incomplete Block Design (Kuehl, 2000). This design was chosen as it ensured that each statement was shown with every other statement on only one occasion, and that each statement occurred exactly five times within the entire choice experiment, thus ensuring a balanced probability of choice in the experiment. The design resulted in 20 choice sets being presented to students, each containing 4 statements to be chosen amongst.

A sample of 258 final year high school students was intercepted at a university open day. A purposive sampling strategy was employed to capture a broad range of demographic groups to ensure representativeness. A full rank order best/worst response type was used for all choice sets with respondents asked to indicate the statement they were most, least and second most likely to communicate (Ben-Akiva, Morikawa and Shiroishi, 1991; Chapman and Staelin, 1982). Additional demographic questions were asked regarding individual characteristics and high school type. The results of both of these research phases are discussed below.

Results

Phase 1 –Focus Groups

Whilst participants were asked about a range of communication sources the findings reinforced the importance that was placed on peers and, in some cases, family as the communication sources that the students would most trust (Maringe, 2006). *"With family... I sort of talk more about details and try to find out more information; it's their little project "* from a boy at a co-educational independent school. For a girl attending a single-sex Catholic school it was *"Friends, I go to friends for great information"*. Interestingly, careers advisors were not seen to be a particularly important source of information other than to pass on factual information and recommend alternative career paths. Typically, from a girl, attending a single-sex public school, *"They (career*

advisor) seem to be emphasising options other than uni (sic.) They say like you do not have do go to uni (sic) to be successful ". Research has shown that as children mature the influence of their parents and careers advisors on decision-making appears to wane. This is particularly the case for young men who place a greater emphasis on the opinions of their friends than their family or school advisors (Hemsley-Brown and Foskett, 1999; Foskett, Dyke and Maringe, 2004; Maringe, 2006). The focus of the analysis was to identify which of the information students received would be passed on to their peers.

Analysis identified two processes used by respondents to select information to pass on to prospective students engaged in selecting a university, essentially, two types of decision rules. The first that arose was an 'exclusion by aspect' rule. This type of rule is characterised by communication of information that suggests the exclusion of the university from further consideration based on its poor performance on only one key feature. For example "*I would never go to X. It's so far away!*" said by a girl from a public single-sex school, this was reinforced by a student (male) at a co-educational independent school who said "universities that are in inconvenient locations to travel to will be written off as a possibility immediately". Location was not the only key feature that was used in this way, "*I wouldn't consider a uni (sic) with a poor social life so I wouldn't go to Y*" said by a girl attending a private single-sex school. This discovery was important as it indicates that perceived failure on a *single* dimension can lead to the university being dropped from consideration. Indeed, the HE institution re-evaluated its entire marketing message as a consequence of this finding because this failure on only one feature resulted in the communication of a *negative referral*. While not used by all potential students, this rule presented as one dominant mechanism when determining what to say by WOM.

The other decision rule identified involved the 'offering of diagnostic information'. This decision rule was the simple communication of facts about the university to support the decision making of the receiver. It was relatively non-judgmental, and simply communicated the sender's perceptions of the university's performance on key attributes. For example "with the Y degree you are much more employable" said by a boy from an independent co-educational school, or "my mate at X says that they make soccer, fencing and all this stuff available to you but he also said the parties were a little 'you know'" said by a boy from a co-educational Christian school. According to a girl from a single-sex private school "*Z is incredibly easy to get to with a lot of transport options available*".

The research established that such a decision rule was exceptionally common as respondents were highly risk averse when communicating. Instead of offering their recommendation for the university, they tended to offer information to help the receiver make the decision him or her-self. This second decision rule was selected for more in-depth analysis during the choice modelling phase because the selection of diagnostic information presents a complex set of trade-offs among the various pieces of information that could be communicated to the receiver.

To facilitate the development of the choice model the results regarding vocabulary were used to create the various statements presented to respondents during the choice experiment. It was noted that most of the core language characteristics mapped well onto the features of the university chosen for this phase of the research.

The final wordings were refined after further discussions with a mixed group of year 12 students.

Phase 2 - Discrete Choice Experiment

The choice model selected for the analysis of the diagnostic decision rule was a Multinomial Logit (MNL). Within the MNL the error, or non-systematic, component of the respondents' decision making is assumed to follow a gumbel distribution with variance equal to 1. This assumption allowed us to estimate the systematic component of the decision to communicate certain statements in the experiment (Train, 2009). The MNL offers a suitable estimation procedure of this diagnostic rule type that has fidelity in both ease of estimation and ease of interpretation (McFadden, 1974; Train, 2009).

The coefficients within the MNL are the main effects and two way interactions of the university features that characterised the statements on offer. That is, the coefficients represented respondents' potential use of either just one feature of the university, or combinations of any two features to determine what statement to communicate by WOM. The dependant variable is the choice of statement for communication. Recall that senders are conceptualised as maximising their utility, as needed under random utility theory, by selecting statements that most likely offer them their sought rewards.

For this research aggregate level models were estimated to offer profiles of target demographic groups. To illustrate this process such models are presented in Tables 1 - 5 in which the sample was split based on;

- Table 1 - Whether the school attended conformed to a religious denomination (one of the most common segmenting variables in this market).
- Table 2 - Respondent gender
- Table 3 - Whether they were considering a business degree at any university.
- Table 4 - Whether they were considering a business degree at that university.
- Table 5- Region of the respondent's home.

The tables demonstrate that regardless of how we segment the main effects are significant; all groups, irrespective of how we define those groups communicate positive facts about each of the key features: location; employment; flexibility; quality; social (the main effects). The most commonly used interaction across all segmentations is 'employment and quality'. This result is notable, as this is all about value of the (perceived) outcome the education delivers, not about the education experience itself so much. This was not unexpected in the current environment where many students are self-funded and have to consider the repayment of loans upon graduation (Foskett, Dyke and Roberts, 2006; Callender and Jackson, 2008)

What is particularly interesting about the choice model results are the differences between the demographic groups in their prioritisation of information regarding different combinations of university features, that is, the interaction terms in the models. Such interaction effects (highlighted in grey in the tables) are extremely difficult to identify using qualitative methodologies due to the relative subtlety of most decisions. Each of the demographic groups has particular nuances with regard to what combinations of the university features they choose to communicate about.

Such heterogeneity in information choice is particularly useful for enabling the customisation of marketing messages for each group by HE managers, it also validates previous findings that WOM communication is highly dependent upon the nature of the exchange partners (Frenzen and Nakamoto, 1993; Step and Finucane, 2002). For example, only those considering a business degree prioritised the combination of 'location and social'. Such results highlight the nuance of potential student WOM, with different groups opting to communicate different information to a peer deciding what university to attend.

The results obtained from both research phases give support to the objective of this research, that is: understanding WOM amongst student groups in the HE sector, and as a by-product, developing a theoretically relevant procedure that allows us to *predict* what content will be communicated by WOM within groups of potential students.

Discussion

In the increasingly competitive market in which HE recruitment operates the need to fully understand the communications strategies employed by potential students is of enormous benefit (James, et al, 1999; Maringe, 2006). Other researchers have described the communication sources and processes from the perspective of their efficacy and influence on the selection of an HE institution (Bennet, 2006). This research extends this understanding, describing how WOM amongst peers works in this context, and developing a tool for predicting the content of the information they choose to communicate.

Given the importance that members of Generation Y, and early research indicates Generation Z (those born since 1994) even more so, place on trust, and the relevance of communications on a personal level to these age groups, the benefits offered by successfully managing WOM processes are great (Williams and Page, 2011). Peers are acknowledged to be one of the most trusted sources of communication when determining which HE institution to attend (Maringe, 2006). The results reveal the selectivity students apply when determining what information to pass on to their peers. HE institutions that incorporate an understanding of what is important to each group and strategically target their communications to reflect this will be more effective in managing the WOM process.

This research has demonstrated that potential students use two main types of decision rule when determining what information to communicate by WOM about a university. The first is an 'exclusion by aspect rule', which offers a negative referral to the receiver due to the perceived failure of the university on a single feature or characteristic of the service it provides. Under this condition the WOM message has a clear negative valence, with peers directed not to attend that university. There is no positively valenced version of the WOM message when this type of rule is employed, all that changes between students is the feature used to justify the negative referral.

The second decision rule used by potential students is used to select diagnostic information to support the peer's decision. This rule is used instead of the exclusion by aspect rule, with only one or the other used. The diagnostic rule is much more common though. Under this decision rule the WOM message has no clear valence,

instead only information about how the university performs on each of the key features is communicated. Indeed, as identified in the choice models here all of the information communicated by a potential student is generally positive. The decision making of the student tends to focus more on making nuanced trade-offs between the various combinations of information that could be communicated to the receiver.

The results of this research also demonstrate that substantial heterogeneity is present in WOM message selection. Different consumer groups prioritise different information for WOM communication, with numerous different combinations of information identified in this research. This heterogeneity supports existing research that suggests that the nature of the information communicated by WOM is highly dependent on the nature of the exchange partners engaged in the WOM.

Higher Education Marketing Practice

There is clear value that can be derived from being able to customise marketing messages for specific demographic groups to encourage and support WOM behaviour. The theoretical and methodological framework outlined in this research provides a process to identify the significance of particular WOM messages based on the key features of the university. This significance is able to be determined within different segmented groups to allow for the targeting of very specific messages. The investment in such a process has the potential to add considerable value for higher education institutions facing increasing competition in the progressively diverse and global market place. Of particular note for education managers is the ability to differentiate between negative referrals arising from the exclusionary WOM decision rule, and the decision rules that result in the communication of more diagnostic information to support a receiver's choice of university. Education managers can profile prospective students, and other stakeholders, and employ scripted responses that provide information likely to counteract negative referrals and support the communication of diagnostic information. Promotional materials can be developed that also further this goal, helping universities manage their marketing more effectively (Moogan 2011).

The important role of technology mediated WOM, including such social media as Twitter, Sina Weibo and Facebook, in disseminating information about universities also makes these results important (Hennig-Thurau et al., 2010; Kozinets et al., 2010; Palka, Pousttchi and Wiedemann, 2009). Where there is an almost endless ability to provide information to technology users, the theoretical framework and measurement process established here can assist with the development of editorial content and navigational flows to support the discovery and subsequent dissemination of information that helps potential students make appropriately informed decisions. This could be used to disseminate information regularly sought by potential students so as to re-enforce WOM messages thereby increasing their impact; or even as an alternative strategy, to provide access to information that is unlikely to be communicated by WOM so that a more diverse assortment of information can be incorporated into potential students' decision making.

Limitations and Future Research

The theoretical framework of the sender's decision to communicate accommodated the simultaneous choices regarding message and exchange partners. This research took most advantage of the component of the model addressing message choice. There remains an opportunity to consider receiver selection further. Understanding what is said *to whom* has the potential to give new insight into the complexity underlying sender communication decisions.

There is also an opportunity to examine in depth how the realms of influence change from when students begin to think about their choice of HE institution to when they make their final selection. Research by Moogan and Baron (2003) suggest that this is an aspect that would warrant further investigation. Utilising the approach described in the paper would also highlight changes in message content.

It is also possible to examine the effects of different WOM motivations, in this framework conceptualised as reward seeking by senders, on their subsequent communication behaviour. As the research here focused on the most externally valid measurement there was no need to systematically vary reward seeking behaviour to observe any subsequent effects on statement selection. Future research can vary these motivations or examine particular states where one or more may be dominant to observe if senders then act differently. This type of insight into WOM will make it much more practical for use in marketing communications strategies and give us new understanding about the ubiquitous and important human process of interpersonal communication.

A final way to expand on the research undertaken here is to examine potential covariates that may influence the senders' choice of WOM content. The choice experiment undertaken here could be repeated for enrolled or former university students, both of which would have greater levels of experience, to examine whether this alters what would be communicated about the university. Such features as the experience of the sender or receiver, stage in life, area of study, among many others, can be examined with the methods developed in this research.

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Table 1. Model estimates by religion

	Coefficients (Standard Errors)		
	Non Religious	Religious Christian	Religious Other
Location	.170* (.012)	.208* (.011)	.483* (.056)
Employment	.296* (.013)	.231* (.012)	.259* (.054)
Flexibility	.103* (.012)	.112* (.011)	.158* (.054)
Quality	.253* (.012)	.251* (.012)	.355* (.055)
Social	.275* (.013)	.204* (.011)	.198* (.054)
Employment*Location	.032* (.012)	.024* (.011)	.081 (.054)
Flexibility*Location	-.012 (.012)	.008 (.011)	-.044 (.054)
Location*Quality	-.002 (.012)	.023* (.011)	.065 (.054)
Location*Socia	.011 (.012)	.015 (.011)	.037 (.054)
Employment*Flexibility	.025* (.012)	-.006 (.011)	.009 (.054)
Employment*Quality	.070* (.012)	.042* (.011)	.118* (.054)
Employment*Socia	.043* (.012)	.020 (.011)	.161* (.054)
Flexibility*Quality	.063* (.012)	.015 (.011)	.124* (.054)
Flexibility*Socia	.018 (.012)	.014 (.011)	.091 (.054)
Quality*Socia	.015 (.012)	.069* (.011)	.113* (.054)
Init -2 LogL	19463.573	22291.613	1164.487
-2 LogL	17731.801	20661.014	990.757

*Significant at $p < .05$; Positive fact coded as +1, negative as -1

Table 2. Model estimates by gender

	Coefficients (Standard Errors)	
	Male	Female
Location	.208* (.010)	.176* (.014)
Employment	.273* (.010)	.235* (.015)
Flexibility	.123* (.010)	.078* (.014)
Quality	.272* (.010)	.215* (.015)
Social	.267* (.010)	.171* (.014)
Employment*Location	.024* (.010)	.041* (.014)
Flexibility*Location	.000 (.010)	-.006 (.014)
Location*Quality	.018 (.010)	.003 (.014)
Location*Socia	.015 (.010)	.010 (.014)
Employment*Flexibility	.007 (.010)	.009 (.014)
Employment*Quality	.056* (.010)	.058* (.014)
Employment*Socia	.035* (.010)	.032* (.014)
Flexibility*Quality	.049* (.010)	.020 (.014)
Flexibility*Socia	.019 (.010)	.015 (.014)
Quality*Socia	.040* (.010)	.057* (.014)
Init -2 LogL	29278.537	13641.137
-2 LogL	26617.829	12823.905

*Significant at $p < .05$; Positive fact coded as +1, negative as -1

Table 3. Model estimates by consideration business degree

	Coefficients (Standard Errors)	
	Considering	Not Considering
Location	.219* (.011)	.161* (.014)
Employment	.267* (.011)	.249* (.014)
Flexibility	.103* (.010)	.119* (.013)
Quality	.266* (.011)	.233* (.014)
Social	.250* (.011)	.211* (.014)
Employment*Location	.023* (.010)	.041* (.013)
Flexibility*Location	-.002 (.010)	-.004 (.013)
Location*Quality	.017 (.010)	.006 (.013)
Location*Social	.022* (.010)	-.001 (.013)
Employment*Flexibility	-.003 (.010)	.026 (.013)
Employment*Quality	.070* (.010)	.033* (.013)
Employment*Social	.039* (.010)	.024 (.013)
Flexibility*Quality	.050* (.010)	.021 (.013)
Flexibility*Social	.017 (.010)	.019 (.013)
Quality*Social	.038* (.010)	.059* (.013)
Init -2 LogL	27115.918	15803.756
-2 LogL	24749.629	14709.434

*Significant at $p < .05$; Positive fact coded as +1, negative as -1

Table 4. Model estimates by considering business degree at institution

	Coefficients (Standard Errors)	
	Considering	Not Considering
Location	.216* (.011)	.175* (.013)
Employment	.278* (.011)	.247* (.014)
Flexibility	.107* (.011)	.115* (.013)
Quality	.272* (.011)	.236* (.014)
Social	.253* (.011)	.218* (.013)
Employment*Location	.026* (.011)	.039* (.013)
Flexibility*Location	.002 (.011)	-.009 (.013)
Location*Quality	.019 (.011)	.001 (.013)
Location*Socia	.025* (.011)	-.007 (.013)
Employment*Flexibility	-.005 (.011)	.029* (.013)
Employment*Quality	.073* (.011)	.032* (.013)
Employment*Socia	.044* (.011)	.025 (.013)
Flexibility*Quality	.051* (.011)	.020 (.013)
Flexibility*Socia	.018 (.011)	.020 (.013)
Quality*Socia	.037* (.011)	.061* (.013)
Init -2 LogL	26284.141	16136.466
-2 LogL	23915.484	14983.294

*Significant at $p < .05$; Positive fact coded as +1, negative as -1

Table 5. Model estimates by region

	Coefficients (Standard Errors)						
	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7
Location	.121* (.036)	.285* (.017)	.176* (.017)	.207* (.020)	.101* (.020)	.237* (.028)	.219* (.042)
Employment	.272* (.037)	.256* (.017)	.239* (.017)	.214* (.020)	.317* (.020)	.298* (.029)	.316* (.042)
Flexibility	.156* (.036)	.118* (.017)	.114* (.017)	.085* (.019)	.097* (.020)	.138* (.028)	.068* (.041)
Quality	.413* (.038)	.234* (.017)	.264* (.017)	.177* (.020)	.246* (.020)	.273* (.029)	.460* (.044)
Social	.195* (.036)	.261* (.017)	.213* (.017)	.181* (.020)	.292* (.020)	.278* (.029)	.217* (.042)
Employment*Location	.062 (.036)	.014 (.017)	.059* (.017)	.002 (.019)	.023 (.020)	.003 (.028)	.107* (.042)
Flexibility*Location	-.079* (.036)	-.007 (.017)	-.002 (.017)	.015 (.019)	.007 (.020)	.001 (.028)	-.004 (.041)
Location*Quality	.004 (.036)	-.013 (.017)	.059* (.017)	.017 (.019)	-.003 (.020)	.004 (.028)	-.019 (.041)
Location*Socia	-.025 (.036)	.018 (.017)	.032 (.017)	.022 (.019)	-.009 (.020)	.009 (.028)	-.007 (.041)
Employment*Flexibility	.031 (.036)	.004 (.017)	.013 (.017)	.021 (.019)	.015 (.020)	-.004 (.028)	-.101* (.041)
Employment*Quality	.107* (.036)	.085* (.017)	.053* (.017)	.042* (.019)	.065* (.020)	-.020 (.028)	.036 (.042)
Employment*Socia	-.009 (.036)	.031 (.017)	.005 (.017)	.034 (.019)	.052* (.020)	.087* (.028)	.074 (.041)
Flexibility*Quality	-.002 (.036)	.050* (.017)	.032 (.017)	.052* (.019)	.008 (.020)	.106* (.028)	.001 (.041)
Flexibility*Socia	-.026 (.036)	.022 (.017)	.013 (.017)	.032 (.019)	.020 (.020)	-.001 (.028)	.030 (.041)
Quality*Socia	.011 (.036)	.037* (.017)	.045* (.017)	.080* (.019)	.049* (.020)	.039 (.028)	-.008 (.041)
Init -2 LogL	2328.975	10147.675	9814.964	7485.990	7485.990	3826.172	1829.909
-2 LogL	2073.754	9199.429	9085.852	7052.106	6821.297	3427.583	1586.498

*Significant at $p < .05$; Positive fact coded as +1, negative as -1

