

“A Student Satisfaction Model for Austrian Higher Education Providers Considering Aspects of Marketing Communications”

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A STUDENT SATISFACTION MODEL FOR AUSTRIAN HIGHER EDUCATION PROVIDERS CONSIDERING ASPECTS OF MARKETING COMMUNICATIONS

Silke Jurkowitsch, Claudio Vignali, Hans-Rüdiger Kaufmann

Abstract

The literature reveals that universities are becoming more aware of the importance of student satisfaction. In addition, various studies have shown that student satisfaction has a positive impact on student motivation, student retention, recruiting efforts and fundraising. This article examines how overall student satisfaction in Austrian Universities of Applied Sciences can be broken down into dimensions of the student's learning experience. In this context, student satisfaction is an individual overall subjective evaluation and experience of a product/service feature, the product/service itself and between what was received and as well as the perception of a gap between the received and the expected specific product/service to date (Anderson and Sullivan, 1993; Anderson, Fornell and Rust, 1997; Oliver, 1999). The article proposes a student satisfaction model for actual students in Austria taking an economic diploma course. The article also demonstrates that in addition to the academic and pedagogic quality of the teaching culture, infrastructure and quality of services from the administration personnel relationships should not be underestimated when trying to improve student satisfaction. Furthermore, the model specific differences between the two types of universities in Austria are considered.

This article used both primary and secondary data. The primary data involved both, qualitative and quantitative research. The research was divided in three stages. The first stage, the analysis of the actual marketing models for services especially Higher Education providers, used secondary data as a principal method of research. The second stage contained the testing and validating of the pre-conceptualised model with actual students via the survey method. In the third stage, Higher Education experts in Austria were at the core of the research to further validate and adapt the model. The research was conducted applying the case study method.

Key words: Advertising in universities, consumer research, satisfaction, communication, relationship marketing, consumer acceptability.

Introduction

The world has become a global environment which forces Higher Education institutions to reposition internationally. In fact, additional resources are needed to meet the long-term challenge to maintain and improve high standards, widening student access, strengthen links with business, and compete globally. The changing demographics will lead to increased competition from rival institutions. Due to this pressure, administrators will face mounting difficulties of securing adequate resources. The result is increasing competition not only for students, but also for philanthropic dollars (Department of Education and Skills, 2003; Schmidt, 1991; Söderqvist, 2001).

Generally, marketing has become more accepted in the Higher Education environment; nevertheless it is still in its infancy at many institutions. Referring to the limited use of marketing and student satisfaction Goldgehn (1991, p. 40) views marketing "as an excellent way to attract students [...]. For many institutions student satisfaction remains caught in the admissions office, and fulfills strictly a sales and promotional function". So, a coherent student satisfaction model is needed to be able to better manage the students' satisfaction rate concerning the product, the organisation, the relationship, the marketing and the alumni activities. To fill this gap in knowledge, the authors develop and test a student satisfaction model in the Austrian university environment. The article is

structured as follows: first, the student satisfaction model is developed and presented drawing on relationship marketing theory. Second, the student satisfaction model as a pre-conceptualisation is tested using quantitative and qualitative research methods. In this context pre-conceptualisation is understood as a preliminary marketing model for Higher Education providers especially Universities of Applied Sciences which is to be verified by empirical research. Then, the results are reported and the conclusions are drawn.

A student satisfaction model

Relationship Marketing

Michael (1997) describes the university in the following way: “in its purest sense, a university is an assemblage of communities with different ideologies, agenda, and academic traditions held together by a common institutional logo and name”. As a result, students can be and should be seen as customers and key stakeholders (Tonks & Farr, 1995). Hill (1995) suggests that the primary customers of the universities are the students and so Higher Education “is increasingly recognizing that it is a service industry and is placing greater emphasis on meeting the expectations and needs of students” (Elliott & Shin, 2002, p. 197). Furthermore, researchers argue “that relationships are important and that the overall market orientation of organisations needs to be translated to a relationship level in order to be effective” (Helfert, Ritter & Walter, 2002, p. 1119). Concurring to Grönroos (1989), the marketing aim should be the development of long-term “customer” relationships because they are a university’s most valuable resources.

In the relationship marketing concept “satisfaction has developed extensively as a basic construct for monitoring and controlling activities and is therefore often viewed as a central determinant of customer retention” (Hennig-Thurau & Klee, 1997, p. 737-738). Nevertheless, satisfaction appears to mean different things to different people (Giese & Cote, 2002; Parker & Mathews, 2001). Satisfaction can be viewed as an outcome of a consumption activity or experience (Hennig-Thurau & Klee, 1997; Parker & Mathews, 2001; Padilla, 1996). When universities accept the students as an important customer group a revolutionary change in the management in Higher Education will be in place (Owlia & Aspinwall, 1997). Especially when a relationship management approach is adopted, the basic understanding of what the students want is vital (Petry, 1996). It is obvious that student satisfaction in the university context is central for the students and the providers. Only a few universities routinely measure satisfaction. Additionally, most of those measurements are not used for marketing planning, evaluation and controlling (Piercy, 1995). According to Elliott & Shin (2002, p. 197) “focusing on student satisfaction not only enables universities to re-engineer their organizations to adapt to student needs, but also allows them to develop a system for continuous monitoring of how effectively they meet or exceed student needs”. So, the student satisfaction approach is important for the development of a culture of continuous quality improvement (Aldrige & Rowley, 1998).

Student Satisfaction

Elliott and Shin (2002) argue that satisfaction is a worthy outcome variable to study because it has a number of student and course related benefits including increases in motivation, lower attrition rates and a greater number of referrals. There are some reasons to be cautious when applying the satisfaction approach in Higher Education (Wiers-Jenssen, Stensaker & Grogaard, 2002): due to the theoretical discussion satisfaction is explained in different ways; feelings and emotions are not completely taken into account as variables in the satisfaction process (Wirtz & Bateson, 1999); there is a difference between institutions and subject-fields concerning the most important student satisfaction factors (Wiers-Jenssen, Stensaker & Grogaard, 2002); student satisfaction is a complex construct with various antecedents and these are not the same as in the actual customer satisfaction models; student satisfaction is a continually changing construct in the Higher Education environment due to repeated interactions (Elliott & Shin, 2002); student satisfaction is an overall response not only to the learning experience of a student (Wiers-Jenssen, Stensaker & Grogaard, 2002); Sevier (in Elliott & Shin, 2002, p. 198) argues that a university’s product is more than its academic program. The product is the sum of the student’s academic, social, physical and spiritual experi-

ences”; research in this field does not show a consistent pattern for student satisfaction (Wiers-Jenssen, Stensaker & Grogaard, 2002) and till now no student satisfaction model is existing especially for Universities of Applied Sciences in Austria. In other words, the students “require experience with the product to determine how satisfied they are with it [...] and] it is based not only on current experience but also all past experience, as well as future or anticipated experiences” (Anderson, Fornell & Lehmann, 1994, p. 54-55).

In this context, student satisfaction is defined as the student’s fulfilment response. It is the individual overall subjective evaluation and experience of a product/service feature, the product/service itself and between what was received and what was expected from a specific service provider to date (Anderson & Sullivan, 1993; Anderson, Fornell & Rust, 1997; Oliver, 1999). So, expectations are defined “as beliefs about a product’s attribute or performance at some time in the future” (Spreng, MacKenzie & Olshavsky, 1996, p. 16). To grasp the complexity of the learning experience, it is important to understand the factors that contribute to student satisfaction. For many students, “the process of studying not only represents the acquisition of certain skills and theoretical knowledge. It is also related to personal growth and social development” (Wiers-Jenssen, Stensaker & Grogaard, 2002, p. 185).

The model structure

The Austrian university environment provides an appropriate context in which to conceptualise, develop and test a student satisfaction model. Two university types are operating in the education market: the older, more traditional universities and the younger, more applied Universities of Applied Sciences. The differences (Hoyer & Ziegler 2002; Perthold-Stoizner 2001; Reber 2001; Winkler 2001; Hödl 2002; Wilhelmer 2001; Novak 2001; Pellert 2001; Zechlin 2001) between the two university types in Austria, which are relevant for the specific model at Universities of Applied Sciences, are the teaching product itself, the evaluation, the admission, the selection and the internship. The teaching product of Universities of Applied Sciences is subject to regular accreditation, every five years, and an evidence analysis of need and acceptance of the product in the market. This type of university is obliged to evaluate their performance internally and externally to further develop the whole university environment. The admission criteria exist due to limited intake according to the accredited study places and a specific selection process, designed by each university itself. The internship is a requirement for every student to get practical experiences in organizations and maybe to adjust individual job expectations. Due to the lack of a student satisfaction model for traditional universities in Austria, more model relevant differences between these two types of universities can not yet be determined.

The need for a student satisfaction model is based on the following reasons: the student is a special customer in a special service environment; the student is part of the product development; the students’ satisfaction rate is always varying over the student time and beyond; the student is the one who transports the “picture” of the university worldwide; no student satisfaction model could be found after researching the existing literature, only alumni or employee satisfaction models were available; Universities of Applied Sciences in Austria are very young and so they are in the middle of the organisation development and culture building. The students are mostly not part of this development but those are the customers who can influence potentials students and society; Universities of Applied Sciences are internally and externally evaluated regularly but only on organisationally relevant factors, for example the structure of the lecture, fair exams, didactic of the professors. According to these reasons, a holistic concept for measuring student satisfaction would help to set new steps and activities.

The context-specific model focuses on the exchange relationship between Universities of Applied Sciences and their actual students. A university must find ways to promote supportive behaviours by their students. The approach of the model is to enable students into management decision making. According to Aldrige & Rowley (1998, p. 199) “this is achieved by assessing student satisfaction with a wide range of provision and then identifying which of these areas are important to students”. Unfortunately, “most academic staff does not view their work as contributing directly to their institution’s output or to the satisfaction of the institution’s customers” (Owlia & Aspinwall, 1997, p. 531).

Factors of student satisfaction

To be successful, a university must find ways to promote their products and services. The model developed and tested here (see the following figure) is based on an exchange framework. In the same way as Spreng, MacKenzie & Olshavsky (1996) state the distinction between overall satisfaction and the individual attributes of satisfaction is important, because attribute-specific satisfaction is not the only antecedent of overall satisfaction and overall satisfaction is based on the overall experience. Consequently, the authors proposition that the antecedents of student satisfaction steam from four relationship dimensions: service performance, university performance, relationships, and university standing. These dimensions are modelled as antecedents in the key mediating construct – overall student satisfaction. Promotion, as a dimension itself, is modelled as a potential outcome of overall student satisfaction at Universities of Applied Sciences in Austria. Positive or negative satisfaction should increase a student's likelihood of reacting in some way. These reactions may include changing brand attitudes, giving word-of-mouth testimonials or warnings and complaining or complementing (Woodruff, Cadotte & Jenkins, 1983).

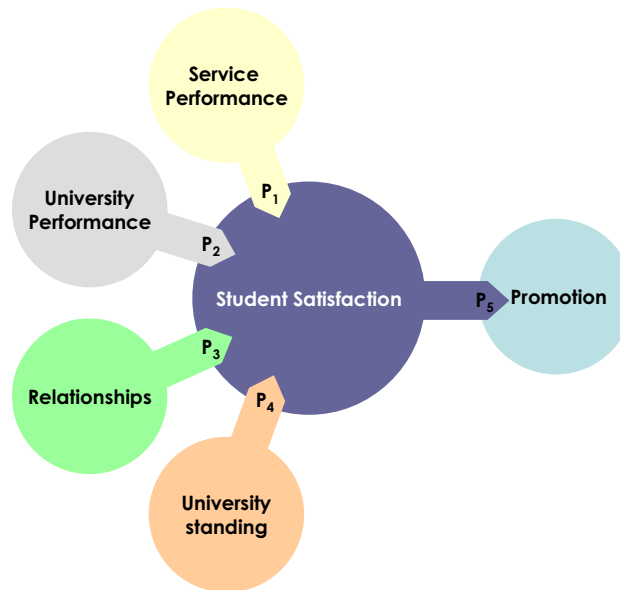


Fig. 1. Pre-conceptualised model

Service Performance

According to Spreng, MacKenzie & Olshavsky (1996) most prior satisfaction research has not included performance as a direct antecedent of satisfaction (e.g. Bearden & Teel, 1983; Oliver & DeSarbo, 1988). Service performance has become a central construct in marketing research, especially in combination with service quality.

In the context of Higher Education, service performance which includes implicit quality is especially influenced by two factors: the university professors and the specific course content. In the service context, quality is a subjective measurement and depends on tangible and intangible attributes (Mont and Plepys, 2003; Pariseau and Daniel, 1997). Wiers-Jenssen, Stensaker & Groggaard (2002) made various assessments where they closely scrutinised the pedagogical and academic quality of teaching. They (2002) found that the important factors are close to teaching and social climate. Finaly-Neumann (1994) ascertains that dominant predictors of instructional satisfaction include clarity of instructional tasks, professors' feedback and identity of instructional tasks.

By turning the focus towards the course content, the subject quality will be one of highest priority (Scott, 1999). According to Elliott & Shin (2002, p. 198) "a university's product is more than its academic program. It is the sum of the student's academic, social, physical, and even spiritual experi-

ences”. Furthermore, satisfaction is positively influenced when there is positive information about the quality (Anderson, Fornell and Lehmann, 1994). An approach for assessing the quality of a service is to measure the students’ perceptions of quality. Service quality is the comparison of what customers feel what organisations should offer compared to their performance perception of the service provider (Parasuraman, Zeithaml and Berry, 1988). And students are able to judge the quality of the service because they have various performance experiences in the university (Selles, 1993).

In brief, higher satisfaction ratings can be gained when the students are provided with a curriculum that meets their expectations and needs especially through focusing on high quality instruction and opportunities to develop their skills (BC College and Institute Student Outcomes, 2003). As a consequence, it is propositioned that

P₁: Service performance is related positively to student satisfaction.

University performance

Researchers argue that students are satisfied with their academic products, but not with further support services (e.g. Kotler and Fox, 1995; Umbach & Porter, 2002). As Umbach & Porter (2002, p. 210) emphasize, “Higher Education researchers have only recently begun to recognize the need to analyse data by taking into account the nested structures of institutions of Higher Education”. As noted earlier, universities provide other services beside academic services. These other services become crucial to successful course completion for many students and also for the university as one of the competitive advantages (Hill, 1995). According to researchers (Wiers-Jenssen, Stensaker and Grogard, 2002) the support facilities of the university are very important to get satisfied students. In more detail, Guolla (1999, p. 88) states that “a student’s satisfaction may be influenced by poor classroom facilities of which an instructor may have limited resources to change”. So, the campus environment can be seen as a web of connected happenings that influence student satisfaction (Elliott and Shin, 2002). Therefore, it is necessary to enhance “the perceived value by providing services or service attributes not provided by the competition” (Claycomb & Martin, 2001, p. 391). Researchers (Umbach and Porter, 2002; Wiers-Jenssen, Stensaker and Grogard, 2002) found that smaller institutions have more satisfied students than larger institutions and additionally different environments within the institution can have different influences on students. Therefore, the authors propose that

P₂: University performance is related positively to student satisfaction.

Relationships

Students vary in their relationships with the university from transactional to highly relational bonds (Garbarino & Johnson, 1999). When regarding the relationships, two factors are important for higher student satisfaction rates: bonding and empathy. Bonding is defined as “the dimension of a relationship that results in two parties (student and university) acting in a unified manner toward a desired goal” (Oliver et al., 2000, p. 1113). Family, professors, university personnel, reference groups, and social norms may be influential on bonding to organizations (Garbarino & Johnson, 1999). In the same manner, empathy is defined as trying to understand someone’s desires and goals (Oliver et al., 2000). According to these researchers, there are indicated links of reciprocity and empathy to relationship marketing.

The term reciprocity implies that a university not only takes, but also gives something in return (Arnett, German & Hunt, 2003). Similarly, “reciprocity is the dimension of a business relationship that causes either party to provide favours or make allowances for the other in return for similar favours or allowances to be received at a later date (Oliver et al., 2000, p. 1113). In general, research by Emery, Kramer and Tian (2001) shows that relationships in the Higher Education environment are reciprocal and that perceived reciprocity is associated with increased volunteerism (Arnett, German and Hunt, 2003). Bagozzi (cited in Arnett, German & Hunt, 2003, p. 94) maintains that reciprocity is at “the core of marketing relationships and regards it as a fundamental virtue”. In particular, satisfaction reflects the outcomes of reciprocity that occur between students and the university personnel (Guolla, 1999). Consequently, the authors propose that

P₃: Relationships are related positively to student satisfaction.

University standing

Successful universities realize that it is very important to retain students in the first place than rather concentrate on attracting new ones. One reason is that through student satisfaction a competitive advantage can be gained (Elliott & Shin, 2002) and they can be marketed in the university's marketing tools. According to Spreng, MacKenzie & Olshavsky (1996, p. 18) "it is important to examine this dimension, because a great deal of marketing effort is focused on communications with customers. Furthermore, managers are being told to manage expectations, which it seems will be done almost exclusively through marketer-controlled sources of information". The perceived benefits associated with attending a particular institution, for example location, facilities, image, curriculum, quality of students, etc. have an influence on the students' decision (Washburn & Petroschius, 2004).

Positioning statements need to be carefully considered. A qualitative study of Australian universities' study guides for international students suggests that recognition (reputation), academic instruction (quality of teachers and resources), campus life (added features) and guidance (how to access services) are the most salient promotional features" (Gray, Fam & Llanes, 2003, p. 110). Positioning is "the place which a product occupies in a given market as perceived by the product's targeted customers" (Dibb & Simkin, 1993, p. 31) and "how customers think about proposed and/or present brands in a market" (Gwin & Gwin 2003, p. 30). The positioning of a brand is designed to develop a sustainable competitive advantage in the students' mind. The brand itself is part of communication.

The elements of prestige, image, reputation and positioning have to be displayed somehow in the promotion tools of the university. So, the previous discussion leads to the following proposition

P₄: University standing is related positively to student satisfaction.

Promotion

In these days, students can be better marketed to potential employers (Guolla, 1999). This is due to the circumstance that universities started to evaluate the perceived outcomes of their educational services and relate them to the actual student satisfaction rate (Westbrook and Oliver, 1981). The promotion dimension for this student satisfaction model includes the components of trust, commitment and future intentions of alumni.

The first element of the promotion dimension is trust. Trust is conceptualised as a level of confidence that the other party's expected behaviour will result in valued outcomes (Gruen, 1995; Hennig-Thurau & Klee, 1997; Oliver et al., 2000) and has also been linked to bonding, reciprocity and empathy leading to cooperation, communication, and bargaining (Oliver et al., 2000). There is also a positive relationship between trust and relationship commitment. Customers with strong relationships not only have higher levels of trust and commitment, but also that trust and commitment become central in their attitude and belief structures (Morgan & Hunt, 1994). These authors (1994) theorize that trust and commitment are key mediating constructs in successful relational exchanges and they reflect the student satisfaction level (Garbarino and Johnson, 1999). When trust and commitment are present these lead to outcomes which promote efficiency, productivity and effectiveness. These outcomes direct to cooperative behaviour and this behaviour is advantageous for success in relationship marketing (Morgan and Hunt, 1994). A component of commitment for the university is loyalty – loyalty to an educational provider (Yu & Dean, 2001). Through increasing loyalty, it is argued, that satisfaction helps to secure future revenues (Fornell, 1992). Söderlund (1998, p. 176) defines loyalty "as the extent to which the customer intends to purchase again from the supplier who has created a certain level of satisfaction" or in a shorter statement "loyalty expresses an intended behaviour to the service or the organization" (Andreassen & Lindestad, 1998, p. 12).

Students can be best attracted and retained through identifying their needs and expectations (Elliott & Shin, 2002). The same authors (2002) completed a study, which results that student satisfaction has positive influences on student motivation, student retention, recruiting efforts and fundraising. Furthermore, Guolla (1999, p. 90) found that highly satisfied students "engage in favourable word-of-

mouth [...]. Word-of-mouth from satisfied students lowers the cost of attracting new customers for the university and enhances the university's overall reputation, while that of dissatisfied students has the opposite effect (Fornell, 1992). Also, they can return as graduate students, recruit prospective students or regularly donate as alumni. The most mentioned relationship-building practices are referrals, testimonials, and visits to customers' sites by potential customers. According to the above mentioned components of trust, commitment and future intentions of alumni, it is proposition that

P₅: Student satisfaction is related positively to the promotion for a university.

Method

Research design

This study used both primary and secondary data. The primary data involved both, qualitative and quantitative research. Therefore a multi method approach was used. All propositions were examined with the identical research method. The research was divided into three stages. In the first stage, the analysis of the actual marketing models for services, especially university providers were examined. For this analysis, secondary data was used as a principal method of research. This analysis helped to assess which satisfaction elements already exist for the Higher Education market. Therefore, a model was pre-conceptualised based on the propositions and drawing on current literature and international best practice. The second stage contained the testing and validating of the pre-conceptualised model which are the propositions. A questionnaire was designed to investigate the components of student satisfaction in Austrian Universities of Applied Sciences. The questionnaire was pre-tested with a focus group. In the third stage Higher Education experts in Austria's Universities of Applied Sciences were at the core of the research. Therefore, the research was conducted applying the case study method. The objectives were to validate the findings of the second stage and to further amend the model by introducing the perceptions of strategic decision makers. The case study method was perceived to provide useful information on the interrelation between strategic and operational decision makers within the system of Higher Education and also more in-depth information for the initial student satisfaction model. Research techniques used in-depth interviews and participant observation.

The first test phase of the pre-conceptualised model was conducted via a qualitative research method, a focus group, consisting of alumni of an Austrian University of Applied Sciences. The results of the discussion were first, a confirmation of the student satisfaction structure. Second, the participants developed their own student satisfaction model. Third, a comparison between the model developed by the focus group participants and the conceptualised model of the authors made obvious that the participants saw no major differences between their model and the model developed by the authors.

Results

The analysis procedure for the student questionnaire was divided into three stages: the data preparation, the descriptive analysis followed by the inductive analysis. The representative results in this part confer always to the propositions and the empirical model. The Cronbach's alpha reliability coefficients on the five dimensions measuring student satisfaction ranged from 0,6532 to 0,8105.

Table 1

Reliability of the student satisfaction dimensions

Dimension	Cronbach's alpha	Number of factors
Service performance	0,8105	5
University performance	0,6532	3
Relationships	0,7661	3
University standing	0,6576	6
Promotion	0,7641	3

The following results could be gained in the quantitative analysis: The factor analysis pointed to a stronger importance of relationship dimensions e.g. service perception instead of service performance leading to a renaming of the model dimensions and factions. Though not reported here in detail, the results of a series of correlations and indices indicated support for the initial student satisfaction model.

Due to the results of the Kolmogorov-Smirnov a u-test was made. The results for this test are presented in the following table, meaning that results with $p < 0,05$ are significantly different.

Table 2

Results of the Kolmogorov-Smirnov and u-test

	Kolmogorov-Smirnov	p	Mann-Whitney-U	p	Difference in comparison to the study form?
Overall student satisfaction					
Teaching	4,034	0,000	22332,500	0,076	no
Factors of the university experience	2,815	0,000	17306,500	0,000	yes
Service performance					
Professors					
Accessibility during office hours	4,804	0,000	21855,500	0,014	yes
Accessibility outside class	4,905	0,000	23764,000	0,299	no
Satisfaction with the individual treatment	5,072	0,000	22857,000	0,065	no
Teaching skills	2,253	0,000	21572,500	0,007	yes
Assignments	1,825	0,003	23319,000	0,186	no
Increase of knowledge	2,317	0,000	23843,000	0,272	no
Assistance	2,586	0,000	20740,500	0,002	yes
Study content	2,531	0,000	22318,500	0,032	yes
Course management					
Clarity of tasks	5,609	0,000	24565,500	0,544	no
Organisation of the university course	8,350	0,000	21918,000	0,003	yes
Accessible syllabus	4,953	0,000	20607,500	0,000	yes
University performance					
Infrastructure					
Basic offer	2,291	0,000	11180,500	0,000	yes
Staff					
Social climate	5,577	0,000	23588,500	0,340	no
Responsiveness	4,024	0,000	20815,000	0,004	yes
Relationships					
Bonding	1,834	0,002	19767,500	0,001	yes
Empathy	3,297	0,000	22777,000	0,302	no
Reciprocity	1,628	0,010	6102,000	0,000	yes
University standing					
Prestige	3,247	0,000	23333,500	0,158	no
Image	3,232	0,000	22195,500	0,021	yes
Positioning					
Promotion tools	2,728	0,000	23803,500	0,298	no
Standing	3,350	0,000	21739,000	0,008	yes
Resources & services	3,896	0,000	23680,500	0,453	no
Education	4,492	0,000	24028,500	0,412	no
Reputation	1,650	0,009	21959,500	0,064	no
Promotion					
Trust	2,608	0,000	23023,000	0,141	no
Commitment	1,967	0,001	24987,500	0,854	no
Future intentions	1,782	0,003	12711,500	0,247	no

As can be seen from the results in the above table, there are significant differences between the study modes in University of Applied Sciences in Austria when looking at various factors in the

university environment. The component Factors for university experience of the overall student satisfaction construct is significantly different measured from the students who are in a part-time course in comparison with students who are in full-time courses. Similarly, part-time students' views are different concerning the professors' accessibility during office hours, professors' teaching skills, professors' assistance, study content, organisation of the university course and the accessibility of materials. In the student satisfaction dimension, university performance the factor additional offer and responsiveness are different due to the study forms. A similar result can be found in the satisfaction dimension relationships where only the factor empathy is equal in the full-time and part-time courses whereas the factors empathy and reciprocity are not. The satisfaction dimension promotion results in differences for the factors image and standing for part-time student in comparison to full-time students. Due to the different needs of students in full-time or part-time courses the results of the u-test clearly show the factors where the students in part-time courses can be especially addressed with the same methods, activities or strategies and where not.

For this survey a multiple regression analysis was done. A major result of this study was that the dependent construct, student satisfaction, resulted in two components: teaching and Factors for university experience. The component teaching is defined as the pure product of the Universities of Applied Sciences. It contains also the future preparation of the students which has a strong connection with the experiences teaching product. The second component Factors for university experience include the promotion activities and the experimental factors. The experimental factors are divided in formal and personal parts. The formal part is the infrastructure and resources of the instructions, and the personal part is the specific treatment of the students. The tested student satisfaction model has 89% of significant paths for the dimension teaching and 93% for the dimension factors for university experience.

First, the variables were ranked according to their correlations, the non-significant variables were eliminated from the model, and variables were then re-named and clustered. In order to the results gained by the statistical analysis of the pre-conceptualised model, it has to be adapted in the naming of the dimensions.

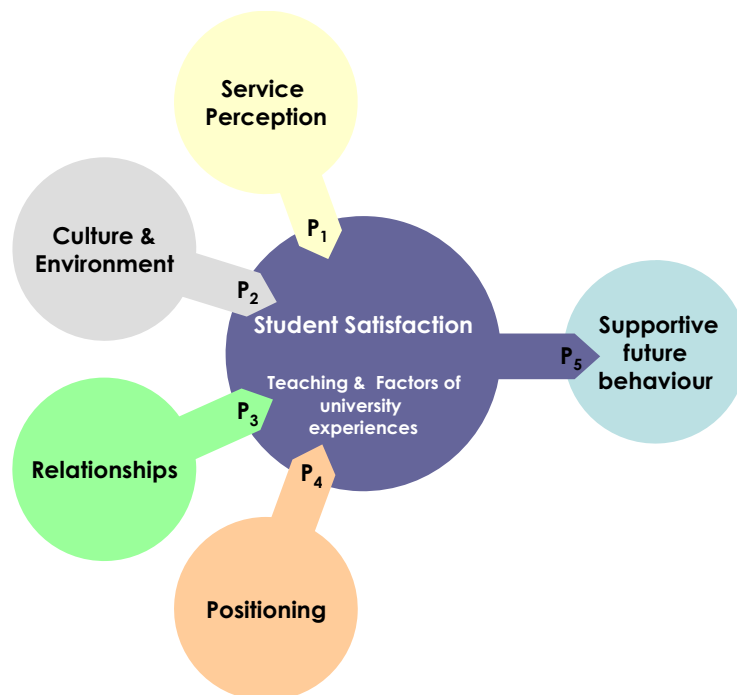


Fig. 2. Initial student satisfaction model

Conclusion

The article examined a marketing model with different dimensions and outcomes of student satisfaction for Higher Education providers. By presenting holistic management thinking the article aimed at developing a theoretical framework for student satisfaction at Universities of Applied Sciences in Austria. The authors have reviewed and consolidated prior research and current theoretical models from several fields of study. The framework was evaluated by actual students, alumni, Higher Education experts and university personnel.

Researchers (Gummesson, 1997; Arnett, German & Hunt, 2003) suggest that promoting long-term relationships with key customers is an important strategy. This is also in case for Higher Education providers, especially for Universities of Applied Sciences. These institutions have tremendous pressures and needs from various angles to keep and attract new students. Therefore, Universities of Applied Sciences need to rethink their orientation towards their customers and their competitors, national and international wide. By implementing or improving a relationship marketing strategy with their stakeholders more competitive advantages can be gained. The key factor inside this strategy is the satisfaction construct. This research must be considered as an initial attempt to develop a more comprehensive view of the overall student satisfaction construct, the student satisfaction dimensions and factors at the university level. This article has aimed to contribute to the field of education services and to increase the knowledge concerning the meaning and the management of student satisfaction.

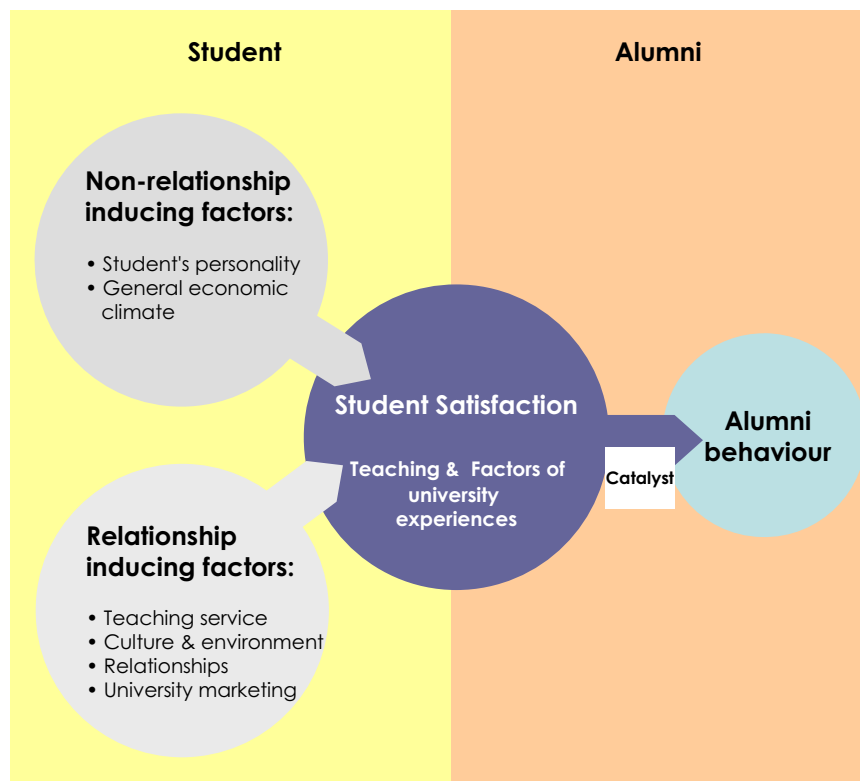


Fig. 3. Final student satisfaction model

The contribution of knowledge of this article can be manifested in the following statements. First, the topic of student satisfaction of Universities of Applied Sciences in Austria has not yet been addressed in the literature. Furthermore, there is no coherent body of knowledge defining the components of student satisfaction of Universities of Applied Sciences. This represents a crucial gap from the perspective of a full exploitation of the student satisfaction behaviours and activities.

Therefore, the article contributes to new knowledge by developing a coherent marketing model for Universities of Applied Sciences in Austria differentiating from current mainstream concepts and satisfaction factors for other branches. The student satisfaction model takes the specific environment of Higher Education in Austria into account and includes strategic and operational factors as well as non-relationship and relationship inducing factors. So, the aspects of the educational experience in a University of Applied Sciences that are associated with students' overall expression of satisfaction are a further contribution to knowledge. As it is stated by Maruca (2000) "the really valuable information may not be students' rating of various products or service attributes but the underlying factors that influence their perceptions".

Second, the model is part of a student-alumni lifecycle and therefore displays the most relevant dimensions of student satisfaction and a combination with future student behaviour. Furthermore, the empirical results emphasize that various people have different impacts on the result of student satisfaction, meaning that relationships in the university environment are at the centre of each activity. This is due to the more comprehensive approach taken in this article. Hence a coherent body of knowledge in the field of marketing of Higher Education providers is provided. As a basis for further research this model might serve as a role model for other Universities of Applied Sciences in German speaking countries.

Third, while the specific model developed in this article is valid only for Austrian Universities of Applied Sciences, the pre-conceptualisation might be taken as a starting point for studies relating to other regions or other types of Higher Education institutions. Additionally, the methodology pursued in this article might be taken over when analysing different Higher Education sectors. By this, a contribution to worldwide knowledge is offered.

As a consequence of the contributions to new knowledge, the importance of this student satisfaction model can be underpinned in the following way: this is the first student satisfaction model which consists of a combination of existing satisfaction factors especially for the university environment in Austria; the student satisfaction model visualises the two influencing parts of student satisfaction, non-relationship inducing factors and relationship inducing factors; the model clearly shows that student satisfaction consists of two components: Teaching and Factors of university experiences; it states which parts of student satisfaction are necessary for the various university managers and which parts can be influenced or can not by them; the empirical results show that the relationships in the university are a vital fundamental for the university and students' success and the students satisfaction model also illustrates that all people in the university environment influence actively through their activities each individual student satisfaction rate.

The following limitations have to be considered when reading this article. First, the geographic context, the research area is Austria, may limit the generalizability of the results. The final marketing model is adapted to the local factors and environments of the Austrian University of Applied Sciences as Higher Education providers. Second, the factors which are connected to university experiences are especially investigated. Third, the University of Applied Sciences is not a traditional university with a long tradition in research and lecturing. Thus, the model will not be valid without further research for other types of Higher Education institutions. Fourth, the empirical research in this article has not utilised a longitudinal design. Thus, it is not possible to conclude that overall student satisfaction is a stable feature within each subject-field.

The coherent student satisfaction model as a new contribution to knowledge provides a starting point for future research. The results suggest that different student satisfaction dimensions do have significant influences on consequences. Maybe more important for the student satisfaction stream, results provide further support for the multidimensional nature of student satisfaction, as the influences differ among the student satisfaction dimensions. A clearer picture of the model itself can only emerge after similar evaluations are carried out with other university courses and possibly in comparison with traditional universities. As a field of study student satisfaction for Higher Education providers still have many challenging paths to be followed. It is hoped that this article would stimulate more research into the antecedents and consequences of student satisfaction.

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