Ε	C	O	n	O	m	V
	_					- 7

ASB Summer University 2006: Assessment of student satisfaction with a threefold approach

Master's Thesis



Bibliographic information published by the German National Library:

The German National Library lists this publication in the National Bibliography; detailed bibliographic data are available on the Internet at http://dnb.dnb.de .

This book is copyright material and must not be copied, reproduced, transferred, distributed, leased, licensed or publicly performed or used in any way except as specifically permitted in writing by the publishers, as allowed under the terms and conditions under which it was purchased or as strictly permitted by applicable copyright law. Any unauthorized distribution or use of this text may be a direct infringement of the author s and publisher s rights and those responsible may be liable in law accordingly.

Copyright © 2006 Diplom.de ISBN: 9783956362415

ASB Summer University 2006: Assessment of student satisfaction with a threefold approach

ASB Summer University 2006:

Assessment of student satisfaction with a threefold approach

MA-Thesis / Master University of Aarhus Fachbereich Aarhus Business School Institut für Master of Science in Business Performance Management November 2006



agentur@diplom.de ————www.diplom.de

ASB Summer University 2006: Assessment of student satisfaction with a threefold approach

ISBN: 978-3-8366-0354-6

Druck Diplomica® Verlag GmbH, Hamburg, 2007

Zugl. University of Aarhus, Aarhus, Dänemark, MA-Thesis / Master, 2006

Dieses Werk ist urheberrechtlich geschützt. Die dadurch begründeten Rechte, insbesondere die der Übersetzung, des Nachdrucks, des Vortrags, der Entnahme von Abbildungen und Tabellen, der Funksendung, der Mikroverfilmung oder der Vervielfältigung auf anderen Wegen und der Speicherung in Datenverarbeitungsanlagen, bleiben, auch bei nur auszugsweiser Verwertung, vorbehalten. Eine Vervielfältigung dieses Werkes oder von Teilen dieses Werkes ist auch im Einzelfall nur in den Grenzen der gesetzlichen Bestimmungen des Urheberrechtsgesetzes der Bundesrepublik Deutschland in der jeweils geltenden Fassung zulässig. Sie ist grundsätzlich vergütungspflichtig. Zuwiderhandlungen unterliegen den Strafbestimmungen des Urheberrechtes.

Die Wiedergabe von Gebrauchsnamen, Handelsnamen, Warenbezeichnungen usw. in diesem Werk berechtigt auch ohne besondere Kennzeichnung nicht zu der Annahme, dass solche Namen im Sinne der Warenzeichen- und Markenschutz-Gesetzgebung als frei zu betrachten wären und daher von jedermann benutzt werden dürften.

Die Informationen in diesem Werk wurden mit Sorgfalt erarbeitet. Dennoch können Fehler nicht vollständig ausgeschlossen werden, und die Diplomarbeiten Agentur, die Autoren oder Übersetzer übernehmen keine juristische Verantwortung oder irgendeine Haftung für evtl. verbliebene fehlerhafte Angaben und deren Folgen.

© Diplomica Verlag GmbH http://www.diplom.de, Hamburg 2007 Printed in Germany

Executive Summary

The aim of the research presented here is to assess student satisfaction at the Aarhus School of Business (ASB) for the Summer University that was first introduced in July 2006. The European Performance Satisfaction Index (EPSI) was adapted to incorporate student satisfaction in order to reach this aim, and was used as the main approach in our thesis. The necessary data was gathered from online surveys we derived from the students.

Two studies complemented this model. On the one hand, structured interviews were conducted with all relevant lecturers and on the other hand, a survey was conducted in two waves with Summer University participants. In the first wave, the students' initial expectations were measured and in the second wave it was the degree of fulfilment for these expectations that were measured. Results from the EPSI model indicated that participants of the Summer University were satisfied overall with the program and will remain loyal. Surprisingly however, the variable image showed no direct impact on perceived value, satisfaction, and loyalty. The results from the interviews showed that lecturers were well chosen, but not adequately prepared for the program. In addition, the survey results indicated that expectations were to some degree fulfilled, but certain attributes of lecture quality experienced a negative disconfirmation of expectations. Furthermore, the direct comparison of data from the lecturers and the students suggested problems with the information flow between ASB, the lecturers, and the students. From these findings it can be concluded that overall, the Summer University was a success in the introduction of a new study program; however, there are some areas that need to be improved. Thus, our suggestions include new positioning and better marketing for next year, concrete improvement of quality attributes and information flow, and a strategy for sustainability and expansion of the Summer University.

Our work successfully presents student satisfaction with a threefold approach, not used hitherto. Combining all three approaches in one dissertation and establishing linkages and interrelations between them, provides an extensive insight towards student satisfaction. Considering ASB Summer University took place for the first time in 2006, the insights we provide and the recommendations we are able to give, will influence the further organisational and managerial development of the program.

Preface

When deciding on the topic of our thesis, we concentrated on two issues. Firstly, it had to be both practically oriented and supported by important theories learned in our study program. Secondly, it needed to be beneficial and meaningful to a third party. Thus, we were very delighted, when we received the opportunity to evaluate the performance of the Summer University for the Aarhus School of Business. We would like to thank both the ASB management and all people involved, who helped us with this project. This includes Peder Østergaard and Frank Pedersen for giving us the opportunity to investigate, and Steen Weisner and Dorte Føns Sørensen for their personal support. Our special gratitude and acknowledgement goes to our supervisor Joachim Scholderer, for his untiring support and encouragement. His professional guidance and patience, combined with the high demands he sets on a master thesis helped us to produce a master thesis we can be proud of.

Ella would like to thank:

My family. Especially my parents for supporting and motivating me throughout my studies. Thank you for believing in me! I would also like to thank my thesis partner, Oliver Mühlich, for his great cooperation and commitment. Without him, I would have never completed such complex work. I wish him all the best in the future.

Oliver would like to thank:

First of all, my parents. It was a long way. Without your support, love, and belief, I could have never accomplished this. Thus, this work is dedicated to you. I also would like to thank my beloved girlfriend, Juliane. Thank you for being there for me and supporting me in this sometimes very stressful period. Last but not least, I would like to thank Ella for the good work we have done together, and Hannah, Rebecca, Rene, and Simon for proof-reading this master thesis.

Aarhus, October 2006	
Ella Schneider	Oliver Mühlich

Table of Contents

VE SUMMARYI
EII
F CONTENTSIII
FIGURES V
TABLESVI
ATIONSVII
ODUCTION1
kground2
ectives2
nitations3
erview4
ATEGIC CONTEXT6
torical background6
ntegy 2006 – 20096
M experiences8
nmer University 200611
DRETICAL FRAMEWORK14
al Quality Management14
ntroduction to TQM
QM in higher education
dent satisfaction23
tomer satisfaction models
xpectancy disconfirmation paradigm
CSI (EPSI) model
nmary34
/IOUS RESEARCH35
/IOUS RESEARCH35 asuring student oriented quality in higher education36

4.3	Miscellaneous research on student satisfaction	46
4.4	Summary	49
5 F	RESEARCH QUESTIONS	50
6 5	SUMMER UNIVERSITY EVALUATION	52
6.1	Objectives	53
6.2	Methods	54
6.2.		
6.2.		
6.2. 6.2.		
6.3	Results	
6.3. 6.3.		
6.3.		
6.4	Discussion	
6.4.		
6.4.		
6.4.	3 Interviews	102
7 (CONCLUSIONS AND RECOMMENDATIONS	104
7.1	Key results	105
7.2	Conclusions	106
7.3	Strategic recommendations	108
7.4	Tactical recommendations	114
7.5	Research implications	118
7.6	Managerial implications	119

REFERENCES

List of Figures

FIGURE 1- STRUCTURE OF THE DISSERTATION	5
FIGURE 2- BALDRIGE CRITERIA FOR PERFORMANCE EXCELLENCE FRAMEWORK (NIST, 2002)	18
FIGURE 3- EFQM EXCELLENCE MODEL (EFQM, 2006)	19
FIGURE 4- SATISFACTION FUNCTION BY ANDERSON AND SULLIVAN (1993)	27
FIGURE 5- SWEDISH CUSTOMER SATISFACTION BAROMETER (SCSB) MODEL	29
FIGURE 6- AMERICAN CUSTOMER SATISFACTION INDEX (ACSI) MODEL	30
FIGURE 7- INITIAL ECSI MODEL (ECSI, 1998)	32
FIGURE 8- EPSI MODEL - MASTER MODEL STRUCTURE (EPSI, 2005)	33
FIGURE 9- OVERALL ECSI RESULTS FROM MARTENSEN ET AL. (1999)	38
FIGURE 10- HUMAN QUALITY MAP (MARTENSEN ET AL., 1999)	40
FIGURE 11- NON-HUMAN QUALITY MAP (MARTENSEN ET AL., 1999)	41
FIGURE 12- OVERALL EPSI RESULTS FROM ØSTERGAARD AND KRISTENSEN (2005)	44
FIGURE 13- MEAN EXPECTATION RATINGS ON DIMENSION 'IMAGE'	65
FIGURE 14- MEAN RATINGS ON THE DIMENSION 'EXPECTED QUALITY'	66
FIGURE 15- STUDENTS' REASONS FOR PARTICIPATING AT THE SUMMER UNIVERSITY	68
FIGURE 16- MEAN EXPERIENCE RATINGS ON DIMENSION 'PERCEIVED VALUE' AND 'SATISFACTION'	69
FIGURE 17- MEAN EXPERIENCE RATINGS ON DIMENSION 'LOYALTY'	71
Figure 18- Path diagram of the EPSI model with direct effects and significant R^2	78
FIGURE 19- MEAN EXPECTATIONS AND EXPERIENCE RATINGS ON QUALITY DIMENSION	80
FIGURE 20- PATH DIAGRAM WITH SIGNIFICANT AND INSIGNIFICANT EFFECTS	94
FIGURE 21- IMPORTANCE PERFORMANCE MAP ON DIMENSION 'SATISFACTION'	
FIGURE 22- IMPORTANCE PERFORMANCE MAP ON DIMENSION 'LOYALTY'	.113

List of Tables

Table 1- Lectures and lecturers at the Summer University	11
TABLE 2- OVERALL EFFECTS ON SATISFACTION AND LOYALTY IN MARTENSEN ET AL. (1999)	39
TABLE 3- ITEMS TO DETERMINE LATENT VARIABLES AND THEIR UNSTANDARDISED OUTER WEIGHTS.	43
Table 4- Comparison of overall effects 2005 and 1999	45
TABLE 5- EXPECTED QUALITY DEMOGRAPHICS	57
Table 6- Experienced Quality Demographics	57
TABLE 7- DEMOGRAPHICS FOR QUALITY COMPARISON	58
Table 8- Variables and questions for Summer University 2006	61
Table 9- How did you hear about Summer University	68
Table 10- Experienced overall benefit	70
TABLE 11- OUTER LOADINGS FOR THE LATENT VARIABLES OF THE EPSI MODEL	74
Table 12- Reliability and validity of EPSI model	75
TABLE 13- PATH COEFFICIENTS AND DIRECT EFFECTS OF EPSI MODEL	77
TABLE 14- TESTS OF WITHIN-SUBJECTS EFFECTS, EXPECTED VS. EXPERIENCED QUALITY	79
TABLE 15- STANDARD DEVIATIONS OF THE ITEMS -EXPECTED VS. EXPERIENCED QUALITY	80
TABLE 16- QUALITY OF THE ACADEMIC LEVEL -EXPECTED VS. EXPERIENCED QUALITY	81
TABLE 17- QUALITY OF THE CLASS CONTENT - EXPECTED VS. EXPERIENCED QUALITY	83
TABLE 18- OVERVIEW LECTURERS AND CLASSES	84

Abbreviations

AACSB - Association to Advance Collegiate Schools of Business

ACSI - American Customer Satisfaction Index

ANOVA - Analysis of variance

ASB - Aarhus School of Business AVE - Average Variance Expected DJH - Den Jyske Handelshøjskole

ECSI - European Customer Satisfaction Index

ECTS - European Credit Transfer System

EFMD - European Foundation for Management Development

EFQM - European Foundation for Quality Management

e.g. - Exempli gratia (for example)

EPSI - European Performance Satisfaction Index
EQUIS - European Quality Improvement System

ESSAM - European Summer School of Advanced Management

et al. - Et alii (and others)
etc. - Et cetera (and so forth)

HEC - École des Hautes Études Commerciales

i.e. - Id est (that is ...)

IED - International Entrepreneurship Development
 INSEAD - Institut Européen d'Administration des Affaires

IPA - Importance Performance Analysis
 Lisrel - Linear Structural Relationships
 MBA - Master of Business Administration

MP3 - MPEG-1 Audio Layer 3

M.Sc. - Master of Science

MBNQA - Malcolm Baldrige National Quality Award

No. - Number p. - Page pp. - Pages

PCA - Principal Component Analysis

PLS - Partial Least Squares

SCSB - Swedish Customer Satisfaction Barometer

SEM - Structural Equation Modelling

SPSS - Statistical Package for the Social Sciences

TOM - Total Quality Management

Vol. - Volume

1 INTRODUCTION

Every nation's prosperity and well-being relies on the quality of their human capital. Therefore, it is vital to continuously improve and adjust the quality of higher education to the fast-changing environment. Just like businesses regularly assess customer satisfaction, universities, for quite some time have also been conducting student satisfaction surveys. In order to guarantee high quality in education, it is imperative to identify what is important to customers, who are in this case the students. In relation to this, it also has to be acknowledged that higher education is a service industry just like any other. Although some traditional institutions are still struggling to accept this fact, it is the only way to survive in an increasingly competitive global environment, in which every university wants to attract the best students.

In the last decade the Aarhus School of Business (ASB) has aimed to position itself amongst the most recognised Business Schools in Europe. The implementation of quality management tools, continuous improvement, an international orientation, and long-term strategy plans have paved the way. Such adjustments are crucial for any higher education institution in order to remain competitive. Additional pressure was built up by the Bologna Declaration in 1999, when new standards for teaching and learning were set throughout Europe. The ASB has faced this challenge and since then has become an accredited school of the European Quality Improvement System (EQUIS). The quality standards at EQUIS are very high and only the best Business Schools are accredited under this quality assurance scheme.

As a part of this, the ASB can also look back on a decade of listening very closely to students' opinions. In 1999, ASB researchers made a first attempt at assessing student satisfaction, using an approach usually used for customer satisfaction measurement.

Results obtained by means of the European Performance Satisfaction Index approach turned out to be reliable and useful. Similar assessments of student satisfaction at ASB were conducted in the years after. More successful improvements showed the approach's potential for real-life application.

In 2006, the ASB decided to expand its study programs with the introduction of the first Summer University. Classes were offered in two terms, each lasting three weeks.

The schedule was tight as students were expected to study from nine a.m. to four p.m. at school everyday. The amount of enrolled students was satisfying and therefore, the first obstacles for the program were overcome.

1.1 Background

ASB's reasons for introducing a Summer University program are manifold. First of all, other Business Schools had already introduced similar programs some years earlier. Although ASB has already had a summer program on Executive MBA level for quite some time, an equivalent program for Master students was still missing.

By offering this extra service to ASB students, and of course also to external students, this gap would be filled. Additional reasons for introducing the Summer University are to allow students to finish their studies faster, therefore giving them more time for internships.

As the Summer University took place for the first time in 2006, it seems logical that the assessment of this program is an important issue. Principally, the whole program is similar to other well-known summer programs. However, the threat of wrong organisation, scheduling, and management of the program seems to still be a problem, due to a lack of experience. The research presented in the following aims to assess student satisfaction, the lecturers' point-of-view, and connecting all this with other additional material, to offer vital decision support for the successful future of the Summer University. Finding more information about the particular needs of the students, how curriculum and their design can be improved, and the perception of the administrative staffs' work, will help ASB's management to make the right decisions.

1.2 Objectives

The success at the Summer University will empirically be assessed by means of three approaches:

- 1. EPSI model of student satisfaction
- 2. Comparison of expectations and experience
- 3. Interviews with the relevant lecturers

The EPSI approach will help us get a better understanding of issues that the students think are important. The model contains various variables that predict student satisfaction and student loyalty as outcomes. With the information we will receive, it will be possible to give an exact idea to some important issues. Firstly, the EPSI results will indicate how satisfied the students are and why. Secondly, it will show how loyal students remain to the Summer University and the ASB, and if they will recommend them to others. Furthermore, analysis of each item will give us an exact insight of the importance and performance of specific areas of improvement.

The comparison of expectations before the Summer University, and the degree of their confirmation or disconfirmation after the Summer University will provide a different angle. Disappointment is often rooted in wrong or too high expectations. Thus, understanding the students' expectations is a very important aspect in our work. By surveying students in two waves, it will be possible to draw fruitful conclusions. Possible scenarios vary between meeting the students' expectations fully and not at all. Dissatisfaction, due to disconfirmed expectations, would have a huge impact on overall student satisfaction. Finding out more about expectations will therefore be an important angle and will ultimately help solve managerial problems.

We believe that past research has often underestimated the great influence lecturers have on student satisfaction. Therefore, we will add the lecturers' point-of-view by interviewing all relevant lecturers. This will cover the educational background and experience of the lecturers, their own expectations towards the program and the students, and their way of teaching at the Summer University. These aspects are also linked to some of the items used in our EPSI model approach. The results from this model will complement our knowledge and the role of the lecturers' performance. Information gained from these interviews will make it possible to establish direct connections to students' attitudes and perceptions. Additionally, recommendations in terms of areas of improvement will receive a stronger basis.

1.3 Limitations

The Summer University is divided into two terms, which take place, right after each

other. Every student is permitted to enrol in one class per term. Due to the information gathered from the Summer University administration, the majority of students were expected to participate in the first term. The first term also offered more classes than the second term. Some of the second term applicants dropped out of the second term after having finished the first term. This, among other reasons led to the decision, only to evaluate the first term of the Summer University. Our results still reflect the majority of the participants, as we had high response rates in our surveys. It has to be kept in mind however, that whenever the students or lecturers at the Summer University are mentioned, it only refers to the first term participants.

Moreover, the amount of participants at the Summer University is not as representative as when assessing overall student satisfaction for an entire university. Hence, we shall not forget that the results are only representative to a certain degree. This may also limit its comparability to previous research, which is mostly surveying entire faculties or universities.

When designing the first questionnaire, which was distributed before the Summer University had started, we included items related to grade expectations. Once the program had begun, it became clear that the relevant follow-up data would be difficult to obtain. Students' grades from the Summer University were expected to be delivered no earlier than six to eight weeks after the final exams were written. This meant double the waiting time compared to usual exams, which made it impossible for us to keep the question about the fulfilment of students' grade expectations. Not only was it problematic in relation to our own schedule, but even more for the questionnaire that was supposed to be sent out one week after the final exam, when impressions were still fresh, in order to receive meaningful results. This was very unfortunate as we had expected important insights into the students' self-conceptions.

1.4 Overview

The structure of the report is outlined in Figure 1.

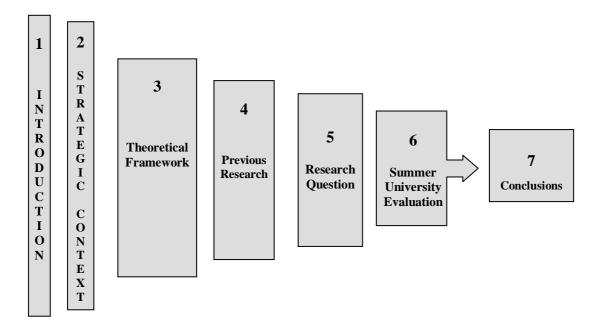


Figure 1- Structure of the dissertation

The introduction in Chapter 1 gives a first idea of what this dissertation is about and what we want to achieve. In Chapter 2, we proceed with the strategic context of our work. Here, we will present the ASB and the Summer University, which builds the basis of our topic. Chapter 3 continues with the theoretical framework we adopt. In this chapter, we will describe the constructs of the chosen theories, the economic processes relating to them, and finally, we will state more explicitly what the theories predict and why this may be helpful for solving our research problem. The most important previous research will be focused on in Chapter 4. This will include research which has successfully applied our theories and is of great relevance to our work in particular aspects. The research questions in Chapter 5 will specify what exactly is to be investigated in the empirical studies. Following, in Chapter 6 the Summer University evaluation will be presented. After presenting the methods, we will continue with the results and discuss them in relation to the objectives. This leads to Chapter 7, where we will focus on the conclusions and recommendations that can be made, based on the results we received. This section will summarize the key results and indicate how our results will help improve the Summer University in terms of the "real-world" problem.

2 STRATEGIC CONTEXT

In order to understand the background of the Summer University, more detailed information about the Aarhus School of Business will be presented in the following chapter. Beginning with the historical background of the ASB, we will then proceed with the school's strategy and past experiences with Total Quality Management (TQM) in higher education. The chapter will conclude with the ASB Summer University in regard to its characteristics, goals, and benefits.

2.1 Historical background

The ASB is situated in Aarhus, Denmark. The predecessor of the ASB can be dated back to the 19th century, known then as The Jutland Business School (Den Jyske Handelshøjskole, DJH). At that time, it already provided young students with an education in business, economics, and trade. The ASB, as we know it today, was founded in the year 1939 and has constantly grown in size, staff, and students (ASB, 2006a). ASB has an annual budget of approximately DKK 320 million.

Today, ASB is one of Denmark's 12 universities. Approximately 485 full-time and 700 part-time faculty and academic staff are employed at the Business School. The total amount of students is around 7000, of which are 2000 part-time students and 800 foreign students (ASB, 2004). This makes ASB the fifth largest EQUIS accredited business school in Europe.

Until spring 2005, ASB had two faculties: the faculty of Business Administration and the faculty of Modern Languages. The University Board then decided to merge these two faculties into one, in order to become more effective in future competition for both students and research funds. In doing so, they wanted to achieve increasing cross-functional thinking in research and education, as well as harmonize procedures and processes (Østergaard & Kristensen, 2005).

2.2 Strategy 2006 - 2009

ASB has formulated a strategy for the next three years. The strategy document outlines what the ASB aims to look like in 2009, which direction it will go, and how its priorities are set (ASB, 2005).