

Student projects
Solutions for companies
and organisations

University of Applied Sciences and Arts
Northwestern Switzerland
School of Business

T +41 (0) 848 821 011
info.business@fhnw.ch
www.fhnw.ch/business/student-projects



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Cover Picture
Project type: Bachelor Thesis, Degree course Business Information Technology, part-time, 8th semester
Project title : Vision «SBB Mobile»
Client Swiss Federal Railways (SBB), Bern
Supervising lecturer: Prof. Dr. Stella Gatzu-Grivas
Photo l. to .r.: Jeremy Naylor (Student),
Bruno Spicher (Head of Channel Development E-Business, SBB)

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Student projects

Get students involved in your projects

The School of Business at the University of Applied Sciences and Arts, Northwestern Switzerland, is a practically oriented educational institution. A key feature is our close collaboration with companies and organisations. Our student projects, of which there are 450 per year, are an important instrument for ensuring the practical orientation and the transfer of knowledge between the university and practice. In the context of supervised projects, students solve specific assignments from your company and organisation.

Your benefits

As a client you can expect a well-founded solution to your assignment. You will obtain access to current specialist knowledge. Your ideas can be made concrete or a basis for decision-making can be developed. Analysis is conducted methodically and from an unbiased perspective. Lecturers supervise the projects and ensure that the scope of the assignment and of the objectives remain in focus.

You can submit topics at any time:
www.fhnw.ch/business/student-projects

We look forward to working with you.

Experiences of clients

Valuable recommendations for action thanks to comprehensive analysis

«The two students carried out a comprehensive analysis of the steady flow of Swiss fruit and storable vegetables for us. Their approach was systematic and well-structured and they dealt professionally with our internal contacts and our suppliers. An essential success factor was also the expert supervision of the work by the FHNW School of Business. The bachelor thesis, containing recommendations for action, has provided us with input for the optimisation of our processes.»

Barbara Kerr, Head of Logistics, Coop, Basel

Well-founded, practical results

«We tasked the students of the FHNW School of Business with introducing an accounting system and we also asked them to work on suggestions for leadership instruments. The solutions they presented met our requirements and can be applied in practice. The students were well-informed and capable and carried out valuable work for us. We are very satisfied with the collaboration process and the results of the project.»

Jürg Weibel, Managing Director, Granula AG, Merenschwand

Long-term cooperation in an international context

«The output-based aid tool (OBA), which was developed with the help of students of the School of Business, has now been introduced successfully in India. Five Fairmed hospitals and the first clinic of a partner organisation use the tool to calculate costs and to finance their clinics. I wish to thank you for the incredibly successful and pleasant collaboration over the last six years.»

Thomas von Stamm, Head of Project Section, Fairmed, Bern

Our offer

Which topics are suitable?

The FHNW School of Business educates its students in bachelor's degree courses in a number of different disciplines. Accordingly, the student projects can be on a range of topics. Below, for your orientation, we outline the most important disciplines in which the students have specialist knowledge. Often, however, the topics are treated holistically, drawing on knowledge from various different subjects.

Examples of possible student project topics:

General Business Administration

Conversion of an idea into a business plan, concept for founding a company, suggestions for planning succession, strategy checks, logistics

Banking and Finance

Regulatory requirements and their implementation, new customer care concepts, social media as a distribution channel, risk management, asset management

Financial Management, Controlling and Auditing

Working capital management, foreign currency management in SMEs, introduction of a company accounting system, economic feasibility studies, overhead cost controlling, choice of suitable accounting standards for SMEs, efficiency gains from limited audits

Marketing

Market potential and market attractiveness analysis for existing and new products, strategic marketing concepts, needs and customer satisfaction analysis, pricing and online marketing strategy, marketing communications strategies, social media concept

Human Resource Management

Introduction of an occupational health and safety management system, development of a company-specific competence model, concept for employee development

Corporate Communications

Preparation of an integrated corporate communications concept, strategies and proposals for implementation to optimise internal communication, reputation analyses

Economics

Analysis of macroeconomic costs and benefits, impact of political measures on sectors and local business, future of local tourism

Business Information Technology

Evaluation of standard software, security concept, e-business, business intelligence, information and knowledge management, business processes

At whom is the offer directed?

All companies, public or non-profit organisations, as well as associations, clubs and individuals can submit projects. The projects can have a regional, national or international focus.

What must you do to engage someone in your topic?

You can call us any time or submit your topic online: www.fhnw.ch/business/student-projects. We will then be happy to show you how we can support you in your assignment.

How do we work together? What do we expect from you?

The students receive technical and methodological support during the entire processing period from a specialist from the FHNW School of Business.

The level of supervision required on the part of the client varies depending on the assignment. You should expect to reserve around 30 hours per project for meetings etc. During the processing period it is important that the flow of information between you and the students is guaranteed. If it is expedient for the assignment at hand, it can be worthwhile to provide the student with a suitable workspace upon consultation. The concluding evaluation of the student's work is carried out jointly by you and the lecturer.

Which objectives should the students achieve?

The students should be able to prove that they can understand a problem in all its complexity and can find an appropriate solution on a scientific basis. They should demonstrate that they can independently apply the knowledge they have gained in their studies to specific practical assignments. In addition, they must apply their social and organisational skills in solving the assignment.



Project title: Business plan for a CAD/CAM-Solution in dental laboratories
Client: Institut Straumann AG, Basel
Project type: Project Work, Degree course Business Administration, 5th semester
Supervising lecturer: Axel Winsky
Photo from l. to r.: Marica Catale (Student), Markus Ried (Head of Sales Digital, Institut Straumann AG), Linda Anklin (Student), Fritz Boner (Student), Vasagen Sangarapillai (Student), Adrian Hajdari (Student)

Milestones

How do the student projects proceed?

The project goals are geared entirely towards your needs. The milestones of the student projects have been thoroughly tested and involve you, the student(s) concerned, and the supervising lecturer. First you will be approached by the student(s), who will organise the kick-off meeting.

Milestones	Description	When
Kick-off meeting	<ul style="list-style-type: none"> – Each party gets to know each other – Clarification of the current situation and objectives – Agreement regarding the form of collaboration (information flow, handling confidential documents and any costs that may arise) – Deadlines are set 	Upon commencement of the work
Proposal (disposition)	The students submit the developed proposal to you and the lecturer for official approval.	2 to 4 weeks after the kick-off meeting
Status meeting Intermediate presentation	<ul style="list-style-type: none"> – Presentation of results to date – Discussion of open points – Joint definition of how to proceed further and of prospects 	During the course of the work
Project conclusion	Concluding presentation, followed by a discussion of the results and handover of the concluding documentation.	Upon completion of the project
Public management summary	The public version of management summary shall be submitted to the client for approval. It is intended to be published on the FHNW website.	After completion of the project
Conclusion Feedback meeting	<ul style="list-style-type: none"> – Joint evaluation of the work with the lecturer – Discussion of further possibilities for collaboration – General feedback 	After completion of the project

Experiences of former students

New possibilities open up

«Thanks to my bachelor thesis, which was commissioned by my client, I was able to familiarise myself with a new subject with a promising future, apply what I had learned, gain more in-depth knowledge and implement this in practice. The bachelor thesis has opened up new career prospects with my employer.»

Patrick Jonke, Contract Manager, Axpo Trading AG, Dietikon
Graduate of Business Economics, part-time study

From Student Project to Implementation

«During my bachelor thesis for Swissmooch in 2011, follow up to the Project Work, which focused on market entry of milk and cheese products in China, I presented a solution which the SME was very pleased with. Indeed, a few years later, I am now implementing the proposal, with all of its challenges, for the company in China.»

Michael Simonet, Business Development Manager Swissmooch, Qingdao, China
Graduate in International Management

An important element of the course

«I wrote my bachelor thesis on the subject of business rules at BOC in Vienna. It was a real highlight. On the one hand I was able to apply what I had learned to a working environment and work on something that was then also used. On the other hand, while working with the experts at BOC and the supervising lecturers, I was able to gain more thorough knowledge of an exciting subject and ultimately to present a good solution.»

Roman Brun, Business Engineer, Swisscom, Zürich
Graduate of Business Information Technology

Conditions

Which courses are involved?

The FHNW School of Business offers the opportunity to submit topics for student projects in the following bachelor's degree courses:

- Betriebsökonomie – Business Administration, International Management in German (Bök)
- Business Information Technology (BIT)
- Business Administration, International Management (IM)
- Wirtschaftsinformatik
- Business Information Technology in German (WI)

What student projects exist and their costs?

Student project	Bachelor Thesis (Bök, BIT, IM, WI)	Practical Work (WI, BIT) Project Work (Bök, IM)
Team size	1 up to 2	3 up to 5
Time exposure (per student)	300 h	300 h Practical Work 150 h Project Work
Academic year	6 th or 8 th semester	5 th or 7 th semester
Costs per project ¹ (excl. VAT and plus expenses ²)	CHF 900.–	CHF 2000.–
Project start	Spring and autumn	Autumn

¹ This fee does not apply in the case of a thesis undertaken on behalf of a client that employs the student on a part-time, minimum 50% basis. The flat-rate fee for processing a topic will be charged to the client by the FHNW School of Business following completion of the project in question.

² Expenses of the students on agreement for printing, travel, postage, telephone, etc. These are typically in the region of CHF 200 to CHF 500 per project. They must be agreed with the students at the beginning of the project and must be borne by the client. The students will invoice the expenses directly to the client.

How and when can you submit topics?

You may submit projects at any time. The main processing times are:

Time schedule	Project start spring	Project start autumn
Student project type	Bachelor Thesis	Bachelor Thesis Project Work Practical Work
Entry deadline	Early February	Early August
Topic allocation	Mid March	End August
Processing time	March until August	September until January

Individual projects may also start outside of the main processing period. We would be pleased if you would entrust our students with any current issues and we will provide you with the support you require for the submission of a topic. You can submit your topic or project by using the submission form, which can be accessed at www.fhnw.ch/business/student-projects

In which language will you receive the report?

Students studying in German usually write their work in German. Students of International Management and Business Information Technology write in English and given the background of the School of Business' strategy of internationalisation, we very much welcome projects conducted in English.

How are the topics distributed?

The students choose their projects based on their preferences. It might therefore happen that a project is not chosen immediately and it could perhaps take a number of months before the work starts. However, those responsible for the student projects endeavour to ensure that your topic is processed as soon as possible. If a project is on a tight deadline, we can also inform you of other forms of collaboration.

Is there a guarantee?

The subject-related, expert supervision by lecturers, practice-related knowledge and the generally high level of commitment of the students allow practical solutions to be found for your company. Over 90 percent of the commissioning companies are satisfied with the results. However, the School of Business cannot provide any guarantee for the complete attainment of project objectives.

How do we treat confidential information?

The client's information is treated confidentially. However, in the spirit of the course and the transfer of knowledge within the university, it is very desirable that the concluding documents can be made accessible to the public. However, you may declare them to be confidential. They then remain sealed and are not accessible to any third parties.



Project title: Marketing plan Bakery-Confectionery Frei AG
Client: Bakery-Confectionery Frei AG, Nussbaumen AG
Project type: Bachelor Thesis, Degree course Business Administration, 8th semester
Supervising lecturer: Prof. Veronika Bellone
Photo form I. to r.: Hansjörg Frei (Management Board Bakery-Pastry Frei AG), Yvonne Hartmann (Student), Sonja Vogt (Student)

Project examples

Public Management Summaries of the students

Generation of a competency model for leadership

Entris Operations AG, Gümlingen

A competency model is to be generated for the development and recruitment of leaders. Current leaders should be able to concentrate more fully on their management role and the most suitable personnel should be found for vacant leadership positions.

Starting point

In the past, the company management and human resource department have ascertained that some leaders are over-worked in the performance of their diverse roles. For this reason it is intended that the development potential of the leaders be appraised in 2012 and appropriate measures be defined accordingly. With this Bachelor Thesis, a competency model will be generated for leaders. The competency model should indicate which competencies leaders must possess in order to perform their role successfully.

Procedure

The methodological process of generating the competency model was divided up into two phases. The current situation was determined in the initial analysis phase, while the target competencies were defined in the subsequent conception phase. This involved conducting interviews with leaders and analysing internal company documents. The results of this process were used to perform a GAP analysis and generate the competency model for the management staff. The GAP analysis will be utilised to show the company where the greatest requirements for action exist with respect to leadership competencies.

Results

The competency model consists of 15 competency fields including functional evaluation and personal characteristics. If the evaluation and individual features are compared then any requirement for action applicable to the leader in question is revealed. His or her superior can then define any development measures required. When recruiting new leaders, a target profile may be drawn up and subsequently compared with the profiles of the applicants. The competency model can therefore help find the most suitable applicant for a vacant leadership position. The competencies are divided up into managerial, methodological, personal, social and specialist competencies. The competence listed indicate what is required of the leader in order to successfully fulfil their everyday leadership role in this company.

Author: Ms Luana Stalder, Business Administration Graduate (part-time programme)

Process optimisation of wintering service

Residential vocational training centre Neuhof, Birr

The frosty winter in 2011 struck fear into the hearts of many plant lovers. In the following spring, numerous hobby gardeners were forced to say goodbye to palms, oleanders, etc., that they had lovingly nurtured and cultivated. The plants had been unable to withstand the icy weather and had perished from frost damage. Could this have been prevented?

Starting point

Neuhof vocational training centre has its own nursery and horticultural centre which offers a wintering service for frost-sensitive potted plants. The service is used by numerous customers. It can be assumed that the harshness of the past winter will see its popularity further strengthened.

Despite the broad customer base, the work remains highly traditional and is managed without extensive IT support. Neuhofer requested an analysis of its processes. It was intended that optimisation potential be identified and definitive measures be defined.

Procedure

The wintering service as a process was analysed on the basis of discussions with the people in charge, local observations, accompanying the horticultural team and comparative studies of other horticultural operations. It was first necessary to map out the process in text and graphical form. Modelling was used to identify weaknesses in the process and appropriate optimisation recommendations were defined and evaluated accordingly. Concrete implementation measures were recommended with a focus on data acquisition and maintenance of the process data.

Results

The work revealed that the envisaged logging system using electronic stickers does not make sense for Neuhofer at the present time. The systems available on the market do not (yet) reflect the needs and requirements of Neuhofer; further development should be tracked accordingly. However, it is strongly advised that a changeover to electronic data management take place. The industry software CH-Gartenbau is already utilised by Neuhofer for invoicing all other horticultural activities. CH-Gartenbau is well suited to administer the process data of the wintering service and for invoicing. It will be possible to replace the handwritten and outdated customer bills without great expense, and the horticultural centre itself will be able to efficiently perform invoicing processes in the future. Logging the master data will require some time, and will be worth doing.

Author: Ms Anna Hitz, Business Information Technology Graduate

Marketing Concept for a new product line Kamedis

Complemedis AG, Trimbach

When a company wants to expand its product portfolio: who is more important? Its end customers or its distribution partners? The first choice to distribute Kamedis product line through the current distribution channels of Complemedis AG seemed obvious.

Starting Point

Complemedis AG is a market leader in supplying Traditional Chinese Medicine (TCM) products in Switzerland. It wants to expand its business portfolio within the over-the-counter (OTC) market by offering a TCM-based cosmetics range «Kamedis» via established distribution partners. The budget for introducing the new product line is rather small and therefore the involvement of the current distributors is very welcome. However one of the interviewed partners stated: «It is Complemedis duty to promote TCM products». The company therefore needs a skin care market analysis and revised the marketing mix .

Procedure

The project was divided into three parts. Firstly, the skin care market and characteristics of Swiss consumers in purchasing OTC medicine were investigated. Distribution channels were analysed by conducting interviews with the existing business-to-business (B2B) distributors of Complemedis. Additionally, business-to-consumer (B2C) channels were reviewed via store audit. Secondly, the information collected allowed identifying an attractive segment which is only partially reached via existing partners. Thirdly, a targeted consumer profile was created and recommendations on positioning were provided.

Results

Out of the analysis it was concluded that the natural and organic market segment is attractive due to its profitability and growth that makes it ideal for Complemedis AG. The first result was the advice to do the positioning of Kamedis as bio-herbal and not TCM, as Complemedis initially wished. Bio-herbal products fall under the category of natural and organic produce in plant form. A well established image of «Bio» products in the Swiss market would eliminate the need for TCM promotions. The second result was that the discrepancy of product, target market characteristics and the distribution channels, suggests considering wider distribution opportunities. Despite tough competition and the original purpose to use B2B sales channels, it was advised to consider B2C alongside the B2B channels. Within the B2B distribution, the focus should be on entering the OTC market through specialised dermatologists, which is the third result.

Authors: Ms. Hanna Kuzmenkova and Ms. Nicole Stohler, Graduates in International Management

Activity-based costing

Bank Coop AG, Basel

In a climate of increasing competitiveness in the financial services sector it is indispensable for today's banks to know precisely which customers and products earn them net revenues and with which customers and products it is necessary to improve profitability. This information can only be obtained through a causation-based costs and results calculation. Activity-based costing is particularly well suited for this.

Starting point

On the 1st of January 2011 the Coop Bank introduced a new core banking system with the standard software Avaloq and replaced the former host. A changeover of this scale is naturally associated with comprehensive alignment of the processes across the entire bank. Within the framework of capturing the new process map, the controlling department of the Coop Bank is therefore planning the establishment of activity based costing as a management and controlling instrument. The aim of this Bachelor Thesis is to provide decisive support to the Coop Bank in the establishment of activity-based costing and to deliver scientific input to assist with this.

Procedure

The work has been divided up into two sections. The first section encompasses a fundamental analysis of the internal processes with targeted questions. A range of possible solutions are presented as methodological approaches required in order to successfully introduce activity based costing. The preferred solution is named and the reasons for this choice are explained. The subsequent practical section examines the example process «financing retail» (awarding a loan to a private individual), which is accordingly tarified for the calculation. Recommendations for improvements and optimization are presented to the management. The ideal process was therefore formulated on the basis of the work. To sum up, a conclusion is drawn based on the findings obtained during this Bachelor Thesis. In the conclusion, the author also expresses his personal opinion on the subject of activity based costing.

Results

The findings obtained within the framework of the assumptions, tariffing and conclusion of the exemplary process presented in this work show that the process is already well-documented, and that the people involved are fundamentally satisfied with it. It is noted that process documentation, optimisation and reorganisation within a bank requires the timely involvement and active participation of the controlling department. This is not least essential in order to safeguard the transfer of knowledge and guarantee methodological consistency. A wide range of optimisations were implemented on the basis of the example process and its illustration.

Author Mr Mathias Thurneysen, Business Administration Graduate (part-time programme)

Contact



Campus Basel

Fachhochschule Nordwestschweiz
Hochschule für Wirtschaft
Peter Merian-Strasse 86
CH-4002 Basel
Sarah-Louise Richter
T +41 61 279 17 82
sarahlouise.richter@fhnw.ch

Campus Brugg-Windisch

University of Applied Sciences and Arts
Northwestern Switzerland
School of Business
Bahnhofstrasse 6
CH-5210 Windisch
Prof. Stephan Burkart
T +41 56 202 72 62
stephan.burkart@fhnw.ch

Campus Olten

University of Applied Sciences and Arts
Northwestern Switzerland
School of Business
Riggenbachstrasse 16
CH-4600 Olten
Felix Strebel
T +41 62 957 24 41
felix.strebel@fhnw.ch

Further information:

www.fhnw.ch/business/student-projects

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