From a Customer Focused to a Customer Centric University IT

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1. ABSTRACT
This paper presents a journey that Aalto University IT has taken during the past three years. The focus is on customer centricity and on the actions that have been taken transforming Aalto University IT into an IT department that is “close to the customers”. The transformation has included, for example, changes in the structure and the focus of the IT department, building collaboration networks within the university and carrying out a customer collaboration program. Each of the changes is described in this paper, and preliminary conclusions on their effectiveness and efficiency are made. And the journey goes on…

2. INTRODUCTION
Established in 2010, Aalto University is a strongly future-oriented university while at the same time building on the combined 300-year-history of three universities. Aalto University was created by a merger of the Helsinki School of Economics, Helsinki University of Technology and the University of Art and Design Helsinki. In 2011, there were almost 19,800 undergraduate and doctoral students of which 9.5 per cent were international students. The total number of personnel amounted to slightly above 5,200 of which 346 were professors. The proportion of international professors and postdocs was 13 per cent and the total income was 430 million euros in 2011 (aalto.fi).

The following table (Table 1) introduces the key figures of the six schools representing business, art and technology at Aalto University.

<table>
<thead>
<tr>
<th></th>
<th>School of Business</th>
<th>School of Art and Design</th>
<th>School of Engineering</th>
<th>School of Chemical Technology</th>
<th>School of Science</th>
<th>School of Electrical Engineering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>3856</td>
<td>2137</td>
<td>4653</td>
<td>1821</td>
<td>3668</td>
<td>3432</td>
</tr>
<tr>
<td>MSc degrees</td>
<td>313</td>
<td>186</td>
<td>253</td>
<td>94</td>
<td>156</td>
<td>226</td>
</tr>
<tr>
<td>Doctoral degrees</td>
<td>24</td>
<td>6</td>
<td>16</td>
<td>22</td>
<td>54</td>
<td>44</td>
</tr>
<tr>
<td>Personnel (FTE)</td>
<td>473</td>
<td>364</td>
<td>755</td>
<td>483</td>
<td>1257</td>
<td>653</td>
</tr>
<tr>
<td>Professors</td>
<td>67</td>
<td>59</td>
<td>56</td>
<td>40</td>
<td>79</td>
<td>45</td>
</tr>
</tbody>
</table>

Customer centricity is a concept that is perceived in several ways, and no common and generally agreed definition exists. According to Shah et al. (2006), customer centricity and its benefits have been debated for over 50 years. There are at least two research streams within customer centricity research. On the one hand, there are studies that emphasize the differences between product and customer centric approaches (e.g. Shah et al., 2006). On the other hand, some research focuses on different levels of customer centricity and the gradual development of organizations into embracing customer needs and preferences in the organizational activities (Blachandran, 2007; Shaw, 2005; Thompson, 2012).
Shah et al. (2006) defined the differences between the product and customer-centric approaches, and the differences are depicted in Table 2. Most of the companies swear in the name of customer-centricity, at least in the mission and value statement of the companies. IT as an industry has traditionally focused on technologies and products that are based on certain technologies. The shift in thinking from starting with the needs of the customers instead of technologies is a big one.

Table 2. A Comparison between Product and Customer Centric Approaches (Shah et al., 2006)

<table>
<thead>
<tr>
<th>Product-Centric Approach</th>
<th>Customer-Centric Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic philosophy</td>
<td>Sell products; we'll sell to whoever will buy</td>
</tr>
<tr>
<td>Business orientation</td>
<td>Transaction-oriented</td>
</tr>
<tr>
<td>Product positioning</td>
<td>Highlight product features and advantages</td>
</tr>
<tr>
<td>Organizational structure</td>
<td>Product profit centers, product managers, product sales team</td>
</tr>
<tr>
<td>Organizational focus</td>
<td>Internally focused, new product development, new account development, market share growth; customer relations are issues for the marketing department</td>
</tr>
<tr>
<td>Performance metrics</td>
<td>Number of new products, profit per product, market share by product/subbrands</td>
</tr>
<tr>
<td>Management criteria</td>
<td>Portfolio of products</td>
</tr>
<tr>
<td>Selling approach</td>
<td>How many customers can we sell this product to?</td>
</tr>
<tr>
<td>Customer knowledge</td>
<td>Customer data are a control mechanism</td>
</tr>
</tbody>
</table>

Several models emphasize the gradual development of customer-centricity and aim at distinguishing different phases of development (e.g. Blachandran, 2007; Shaw, 2005). The customer-centricity pyramid by Balachandran (2007) depicts the 5-level development from low to high level of customer-centricity.

**Level 1: Customer Satisfaction.** Achieving customer satisfaction is the minimum requirement to capture and retain customers. In order to reach customer satisfaction, an organization has to be receptive to the customer’s needs, to respond to subsequent changes in the environment, and to be responsible for the quality and service level agreements.

**Level 2: Customer anticipation.** Involves an understanding of the customer’s market and the competition. Organization has to retain customers over time, that is, achieve customer loyalty and expand the customer base.

**Level 3: Customer delight.** Rather than focusing on transactions, organization is focused on long-term customer experience and networking.

**Level 4: Customer astonishment.** Organization and customers co-create value for its customers.

**Level 5: Customer symbiosis.** Organization and customer behave as partners.

When levels of customer-focused strategies are combined with customer segmentation (i.e. dividing customers into groups based on their behavior, needs and demographics), organization has the possibility to decide at what level it is willing to service various customer segments.

Shaw (2005) defines the development of a customer-centric organization as a journey in his 3-dimensional “naive to natural” model. The model describes how the components of customer experience, source of differentiation and customer focus change as the organization evolves. Shaw (2005) claims that in order to reach superb customer experience, several changes are needed in organizational culture and leadership, processes, people, customer strategy, systems, measurements, channel approaches, expectations, and marketing and branding.

There is an active discussion among the marketing practitioners on what customer-centricity means and how to define the concepts close to it: customer focused, driven, engaged, or inspired (Thompson, 2012). Fader (2011) defines customer friendly companies as treating each customer the same. Customer centricity, on the other hand, means that a company is going to be friendly, provide good service and develop new products and services for the special focal customers - the
ones who provide a lot of value for the organization - but not necessarily for the other ones (Fader, 2011).

There are few studies on customer centricity in the university context. Barta (2009) concluded that in the case university she studied, customer-centricity is defined as a business strategy that places customer/student at the center of the organization’s universe. The university is centered on its core goal, which is to provide a quality learning experience (Barta, 2009).

We adopted the definition of Fader (2011) in this paper, and perceive the development of customer centricity as a slow process that requires changes in several aspects of the organization. Shah et al. (2006) defines the features of an organization that drive the shift from product centered approach into customer centricity. The main features are leadership commitment, organizational realignment, revised financial metrics and systems and process support (Figure 1).

![Figure 1. Drivers of Customer Centricity](image-url)

We use the framework of Shah et al. (2006) in examining the development of customer centricity at the IT department of Aalto University, and the rest of the paper is arranged accordingly. In the third chapter we discuss the importance of leadership commitment and organizational realignment that is aimed at creating a customer focused organization, and lately, emphasize the aspects of customer centricity as defined by Fader (2011). In addition, attempts to create a service oriented and customer focused culture are examined. Processes, especially customer processes and the IT investment life-cycle model are studied in chapter four and chapter five presents the financial metrics. We discuss and conclude the paper, and present future direction for customer work in chapter six.

3. LEADERSHIP COMMITMENT AND ORGANIZATIONAL ALIGNMENT

Early on in the merger of the universities, the importance of customers and customer satisfaction were emphasized in the IT department. In this chapter the actions that were taken after the merger in order to create a more customer focused IT department are described.

Leadership commitment is critical for both initiating and sustaining all initiatives for customer centricity including those related to organization realignment; systems and process support, and revised financial metrics (Shah et al., 2006).

The new IT-director restructured the IT-department by starting to abolish the mental and physical walls between the administrative IT and the “service factory”, that is, the service production. A new role, account manager, was nominated for the main service domains: teaching and research, services (including customers like finance, HR, facilities management), stakeholders (including customers like communication and various networks) and infrastructure. The role of the account manager is to act as an interpreter and messenger between the IT department and the rest of the university; service organization, faculty and students. The responsibility of the account managers is
to get acquainted with their respective customer domains and to find out about their specific needs, and coordinate and monitor the projects and services within their customer domains.

A matrix organization was introduced, whereby service production groups got work assignments from both their line managers and account managers. The importance of customer service was reinforced and the number of personnel having direct customer contacts (i.e. service desk employees) was increased.

During 2011 a collaboration program was launched by the request of the IT-director. He also acted as the owner of the project. The collaboration program is abbreviated as ITYK (IT collaboration and development program) according to the Finnish equivalent. The program lasted nine months in 2011, and consisted of three goals, six work areas and nine projects. Ten people formed the core group of the program and the development manager was the only full-time resource in the program.

The goals and business benefits of the program were:

1. To seek out the customer needs in order to offer IT services that better correspond to the needs of the customers.
2. To build and strengthen service culture in order to offer an effective and efficient service experience.
3. To implement collaboration models to better support the core functions of the university.

The six work areas and nine individual projects and their respective key results are defined in Table 3:

<table>
<thead>
<tr>
<th>Work areas and projects</th>
<th>Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customer feedback</td>
<td></td>
</tr>
<tr>
<td>a) Continuous feedback</td>
<td>Real-time feedback of customer experience</td>
</tr>
<tr>
<td>b) Customer satisfaction feedback</td>
<td>An extensive view of customer satisfaction</td>
</tr>
<tr>
<td>c) Collection of customer need</td>
<td>Deeper insights into the future needs of customers</td>
</tr>
<tr>
<td>2. Service chains and new skills</td>
<td></td>
</tr>
<tr>
<td>a) Auditing of service chains</td>
<td>Development plan for service chains</td>
</tr>
<tr>
<td>b) Service training plan</td>
<td>A model for service training</td>
</tr>
<tr>
<td>3. Strengthening the service culture</td>
<td></td>
</tr>
<tr>
<td>a) Auditing of service chains</td>
<td>A common understand on service culture and its impact on the activities of IT</td>
</tr>
<tr>
<td>b) Service training plan</td>
<td>A group-based service promises</td>
</tr>
<tr>
<td>4. Customer processes</td>
<td>Customer processes and IT investment lifecycle model</td>
</tr>
<tr>
<td>5. Collaboration models with the schools</td>
<td>Models for collaboration</td>
</tr>
<tr>
<td>6. Collaboration models with the departments</td>
<td>Network building and common guidelines</td>
</tr>
<tr>
<td></td>
<td>Defining owners of networks and their responsibilities</td>
</tr>
</tbody>
</table>

Customer feedback
During the program, customer service personnel collected feedback from customer encounters by phone and paper feedback forms. Both methods proved to be work intensive and disliked by customers. Phone calls reached customer in inconvenient times and paper feedback forms were tedious to fill and process further. Thus new ways to collect customer feedback were developed.

Aalto IT started so called “Awesome IT-days” to mobilize a big proportion of the IT personnel to meet customers during one week per year in three campuses. During the campus days, several experts answer the questions of customers, and present the latest services, software and phone and laptop models. During the first two years, there were also presentations of the policies, practices and processes of IT, but they were discontinued due to lack of audience. Awesome IT-event was the
first possibility to collect customer feedback after the merger of Aalto. We found out the main pain points and successful services, and started developing the services according to the feedback.

In order to collect the “base level” of customer needs from the main customer groups (research, teaching, students, service functions, infrastructure, stakeholders) IT collaborated with a student project. Our partners in collecting the information were students taking a special course in usability. Eight students organized focus groups and interview sessions with all the main customer groups. Customers responded positively to the requests for participation, and several customers took part in 6 focus groups, and 30 participated in individual interviews. The main objectives of the student information gathering were to find out short- and long-term customer needs in order to plan the future services, and to target resources where they are needed. Furthermore, we experimented with the process of customer need collection by students in order to evaluate if students could be used to collect data on customer needs in the future.

Service chains and new skills
The second work area included hiring of an outside consultant to examine three service chains that had been problematic in the past. The most acute problem areas were uncovered and discussed with the participants of the service chains.

Furthermore, a training plan was developed to address the new areas of expertise demanded from IT employees; the new recruits should have communication and customer service skills in addition to technical skills. The university HR-department helped in arranging most of the training sessions. In the future, language skills will become a more important skill because the proportion of foreign personnel is increasing rapidly.

Strengthening the service culture
Schein (2004) refined the concept of culture as “a pattern of shared basic assumptions learned by a group as it solves problems of external adaptation and internal integration, that have worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to these problems” (p. 17).

The deepest level of culture contains values. In a customer-centric organization, the central value is that every decision begins with customers. The customer-centric norms include the following: every employee is a customer advocate, and every employee is willing to share information with his/her counterparts; that is, nobody owns customers. An important belief is that understanding comes from living with customers (Shah et al., 2006).

In the ITYK-program, the service production teams were asked to consider the following questions: Who is the customer of the team and what are the core functions of the customers are, how the team provides value for customers and how customers are contacted and managed, and whether there is any networking with end customers. Furthermore, each group was asked to consider the impact of the service disturbance on the activities of customers, name the person responsible for the services of the team, and plan the service promise of the ream to their customers. A special emphasis was on the fact that the teams have both internal and external customers. The functioning of service chains would improve if the internal IT teams would consider other IT teams as customers and aim at a good internal service level.

The questions about customers and the need to consider one’s work as a part of customer work was somewhat unfamiliar to technical teams; and most of the teams did not provide any service promises.

During the discussions, it was noticed that customer centric organizational culture needs a more long-term development. In addition, culture change might be best achieved by altering behavior patterns and helping employees understand how the new behaviors benefit them and improve performance (Shah et al., 2006). Hence, another program that focuses on working practices was set up. In the program, topics such as working and communicating within the IT department and with the university are discussed. Furthermore, the roles and decision making bodies needed clarification because the speed of change had proved to be so quick that some of the employees felt that they had difficulties in following what is going on in their own department.
Collaboration model with the schools and departments

The collaboration with various schools with different needs was discussed by the IT-director and the respective deans of the schools. Furthermore, each school set up an ICT-group that met regularly every two months. During the meetings, special challenges and needs of each school were discussed with the representatives of central IT. The model for collaboration with departments included setting up diverse networks; a network for IT-administrators, a network for security specialists, and a network for procurement specialists of the departments. All these networks included knowledge sharing and increased understanding of the tasks and roles of each member of the network.

Chapter four explores the process restructuring including a brief introduction to the customer lifecycle model and the decision making bodies of the IT governance model.

4. IT-INVESTMENT LIFE-CYCLE MODEL, CUSTOMER PROCESSES AND SYSTEMS

A structured approach in developing new services for the university was introduced as an IT investment life-cycle model. The aim of the model is to increase the customer participation in all the stages of the life-cycle, and especially, at the beginning. The life-cycle model is tightly connected with the IT governance model of the university.

There are three steering groups: steering group for teaching and communication, for enterprise services and for infrastructure. The duty of the steering groups is to accept or decline all pre-study examinations and project proposals. Furthermore, the steering groups are informed on the development of the projects even though the steering groups of the projects make the actual day-to-day decisions. The IT portfolio steering group sets high level priorities and performs budget reviews.

The structure of the demand IT governance model and the IT investment life-cycle model are depicted in Figure 2.

![Diagram of IT governance model and IT investment life-cycle model]

Figure 2. Demand Governance Groups and IT Investment Life-Cycle Model

The implementation of the IT investment life-cycle model has resulted in several changes in the activities of the IT department and the collaboration with customers:

- Customers are always involved through steering groups when customer based IT projects are initiated by IT.
Those projects that are initiated by customers are also brought to the steering groups in order to give IT a possibility to give recommendations on, for example, enterprise architecture.

All the projects are supervised by a steering group and the steering group can make changes considering the scope and other aspect of the project, or interrupt the project if needed.

The criteria for the life cycle gates are the same for all projects.

Account managers are responsible for coordinating all the projects under her/his customer segment.

Customer processes define how the beginning of the IT investment life-cycle is implemented in more detail. The first version of the customer processes were developed as a part of a process program that defined all the core processes of the IT department. The customer processes are depicted in Figure 3.

**Figure 3. Customer Processes**

The customer processes: collecting customer needs and ideas, analyzing the customer needs and pre-study phase form the beginning of the IT investment life-cycle model. After these phases, a project proposal is made and if the proposal fulfills the criteria for starting an IT-project, the project process starts. Furthermore, there are two other customer processes: relationship management and incident managements.

The lack of customer relationship management (CRM) system in the IT department is a clear weakness of the relationship management process. Only lately, a wiki application has been developed that supports the collection of customer data and it functions as a very simple CRM-application. Because several IT-employees meet customers, it is of utmost importance that the information and knowledge on customers and their needs are shared. Thus, nobody should feel that s/he owns the customers individually, but everybody should be equally interested in sharing customer information, since “information is the only resource that increases when it is shared”.
5. FINANCIAL METRICS

The IT strategy states that the metrics for IT are as follows:

- Customer satisfaction (Aalto core strategy KPI).
- IT costs as percentage of total costs (inherited from the Aalto core strategy KPI).
- Distribution of costs and work effort between run, growth and transform.
- Distribution of costs and work effort between service domains.

There is rather scarce university level financial guidance for the IT department other than budgeting that is the main tool in guiding the activities. The target for the IT spending in proportion to total university spending has been agreed to be based on the benchmarking information from similar universities. Furthermore, a more coordinated enterprise architecture work has collected the costs levels per service domains and it will be easier to make decisions based on the more granular level of knowledge.

However, there is a notable lack of customer centric indicators. The only key performance indicator imposed by the university is customer satisfaction. From the IT’s point of view, IT needs systems and metrics that support customer centric activities and in the future, more elaborated metrics should be developed for the IT’s internal use.

The tightening financial situation of universities has forced service departments also in Aalto University to decide how to allocate their diminishing budgets. Already at the beginning of the merger in 2010, there was an implicit difference between “VIP”-customers, that is, the president and heads of service organization and faculty and between the so called “normal customers”. However, there were no explicit guidelines as to how to serve a certain customer group as compared to another customer group.

IT department should follow the advice of Fader (2011) and agree with schools who are the most important individual or organizational customers and whose needs are of the highest priority. Because Aalto University has already hired and is in the process of hiring several professors for new tenured positions in the near future, the requests for new professors should be given high priority. Similarly, the research excellence areas and their needs as well as the needs of teaching should be served first.

The university IT department does not function in a vacuum. The changes in the university policy, and especially the financial status, have a profound impact on the way IT functions.

6. THE WAY FORWARD

The journey to a customer centric university IT department has lasted for over two years. Much has been done, and much remains to be done. After the restructuring of the IT and the founding of the new account manager role, the most influential activity has been the ITYK-program and its results.

The ITYK-program experimented with diverse ways of developing customer service at several levels. An additional and important benefit was that the actors were given the responsibility and power to participate in the development of their own work. Furthermore, as with other IT-projects and programs, customer representatives functioned in the steering group of the program; customers formed a reference group and gave ideas and suggestions to the program. The idea on planning and implementing the changes during the program worked well. However, more attention should be paid to making sure that the good practices and new ideas are transferred to the line organization and embedded in the on-going processes.

During the ITK-program, a feedback system was developed for all physical branches of service desks. It is possible for customers to give feedback easily, by pressing a screen containing six icons, ranging from a smiling to an angry face. In January 2013, there were 209 responses, with 177 extremely good customer experiences. Other feedback systems include an e-mail address labeled as IT-feedback that receives a moderate number of feedbacks every month. In addition, the electronic service desk application is used for collecting feedback. Special attention is paid to the speed of gaining responses from the 2nd level support. Furthermore, the Awesome IT days have been renamed as Service Days, because other service organizations have joined IT in presenting their services to customers in campuses.
The experience with students as the collectors of data on customer needs succeeded in some aspects, and failed in others. Because the information collection and reporting had to follow the guidelines of the course, IT did not receive exactly what it wished for. We would have hoped that the interview guide had been followed more carefully so that the same information had been collected from all the respondents. The articulated needs of the customers dealt mostly with the present-day challenges even though we aimed at collecting information for conceiving future services. Some higher-level general needs were, for example, well-functioning and usable services; time-, place- and device- independent services; services that transfer flows of information into knowledge and enable the mastering of large amounts of data; and services that make the world simpler and bring IT closer to the user. A very typical wish was for an “invisible IT” - if everything works well, IT remains hidden from the users.

IT continues the work with IT service culture as a part of another program. In addition, IT governance model, IT investment life-cycle model and customer processes have been gradually put into use and they function at the moment. However, further deployment and continuous development follow in the years to come. Various networks; IT administrative, security and procurement networks have been founded and are working.

After the ITYK-program the collaboration work has continued with interviews; four IT-directors and managers have interview all the department heads of the university in order to uncover what the pressing present problems are, and what kind of needs the departments may have in the future. The response has been positive, but it has become clear that customers do not know what IT has to offer for departments. Thus, new ways of reaching customers and informing them about the IT services has to be developed.

The department head interviews will continue with more detailed plans of co-operation. By the end of 2014 all departments and IT should agree on a service bundle that the departments are using. The contents of service bundles ranges from using all the services offered by the central IT with no IT work carried out in the department to a scenario in which only the infrastructure services of offered by the central IT are used.

Other initiatives that are important for the customers are new version of the service catalogue and increasing the number of instructions and service descriptions in English.

According to Barta (2009), the customer centric organization:

- understands, embraces, and lives within an operating and organization model that focuses on the customer;
- works diligently to increase customer satisfaction, maintains customer loyalty, and understands what the customer wants and values, all while increasing the organizations profitability and perpetuating growth of the organization;
- adjusts, hones, and tailors its business streams, which include the organization’s product, development, demand generation, production and scheduling, supply chain, and customer care, with the organizational goal of delivering the greatest value to the best customers for the least cost; and
- has a workforce that is devoted to utilizing a company-wide, technology based internal customer information system, and is willing to make a strong commitment to serving customers.

The list of characteristics of a customer centric organization makes one humble. Having all functional activities integrated and aligned to deliver superior customer value is a complicated endeavor, and turning the plans into action takes time. However, our method of working to increase customer centricity has been rather successful so far and we could recommend it to other universities that are in the same situation that Aalto was after the merger, and that have a strong leadership support for developing the activities of IT.
7. REFERENCES


8. AUTHORS’ BIOGRAPHIES

Anne Sunikka holds a Ph.D. in Information Systems Science from the Aalto University School of Business. She works as an IT account manager at Aalto University. Her research interests include personalization, service science, electronic commerce, and IT governance. She also has extensive work experience in the financial industry. She has published, among others, in the Journal of Financial Services Marketing, International Journal of Bank Marketing, and Expert Systems with Applications.