

INNOVATION PROCESS TO DESIGN NEW STAFF RESTAURANT SERVICES

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Abstract

Customer experience and satisfaction are key elements when developing staff restaurant services. We introduce a multidisciplinary innovation process where improvements to existing staff restaurant services, and also new service ideas are systematically sought, evaluated and analyzed

As a case, we selected an existing bigger staff restaurant which provides restaurant services to approximately 500 people daily. We designed a participatory, multi-stage innovation process which aimed at looking for new service business ideas to develop staff restaurant services. The innovation process started with concept design, followed by idea generation and evaluation of ideas against multiple evaluation criteria. We will use sophisticated visual evaluation internet tool in the evaluation of ideas. Analysis of the results was done by portfolio analysis which allows to prioritize ideas according to a core index value. Best ideas were selected according to the core index value and discussion.

We expected to create more than 100 development ideas, and several evaluations against multiple evaluation criteria. We also expect that the evaluation tool would be quick and useful in the evaluation of ideas against multiple criteria. During the process, 51 development ideas were created on how to develop staff restaurant services, which were evaluated fast-track against four evaluation criteria.

As a conclusion, the process made participation easy in each step of the process: context design, idea generation and evaluation. It resulted into both comprehensive support data, and also insights, on how to prioritize ideas and actions for implementation. This is valuable information when improving and developing new staff restaurant services and improving customer satisfaction.

Key words: *Staff restaurant, Services, Innovation process, Service design, Portfolio analysis Multicriteria decision support.*

1. Introduction

Customer experience and satisfaction are key elements when developing staff restaurant services. Businesses seek to understand the level of customer satisfaction in their organizations in order to take steps to improve their quality of service. Therefore, customers are treated as essential to the success and survival of any kind of business venture and the satisfaction of customers is a strategic goal for a company [1].

During the past twenty years, industry has learned to utilize design thinking and human-centered design and to find new business opportunities by contextualizing and analyzing user information [2]. Service design offers a new kind of thinking and tools for responding to rapidly changing business environments [1]. New innovations and service business models are developed within innovation ecosystems, where partnerships and dialogues are established with users.

According to Rönholm [3], there is a need for service design to expand from concept development to the implementation of service concepts and organizational change. Organizational culture cannot be changed from outside, it starts within the organization, for example, people receiving support from their managers to their ideas. The role of service designer can be objective mediator who view the problems and needs in the social environment empathetically [3].

As a case, we selected an existing staff restaurant which provides lunches in Helsinki region and is part of a large provider of restaurant services. The case company in this

research has participated in the I Choose and the Environment Supports project, a joint project of the Savonia University of Applied Sciences, University of Eastern Finland, National Public Health Institute, VTT, and several companies in the food sector. The project is ongoing from 2016 to 2017 and it is financed by the Finnish Funding Agency for Innovation - TEKES. The purpose of the project is to promote health related research on food and support cooperation between business and international research organizations. The project creates innovation platforms and promotes companies' possibilities to grow and become international.

To facilitate service design process, we introduce a multidisciplinary innovation process where improvements to existing staff restaurant services, and also new service ideas are systematically sought, evaluated and analyzed. The methodology is based on 5-step business model creation process, including multi-criteria decision support (MCDS) and portfolio analysis, adapted from Kajanus *et al.*, [4], and Eskelinen *et al.*, [5]. We designed a participatory innovation process which aimed at looking for new service business ideas to develop staff restaurant services. The innovation process started with concept design, followed by idea generation and evaluation of ideas against evaluation criteria. We used sophisticated visual evaluation internet tool both in the idea generation and in the evaluation of ideas. Analysis of the results was done by portfolio analysis which allows to prioritize ideas according to a core index value. Best ideas were selected according to the core index value and discussion. Next, CIMO analysis was done to present the outcome [6].

The overall goal of the innovation process was to find items that help clients to make staff meal selections that support individual wellbeing and management. As another goal, how the new information could be utilized when developing domestic and international business.

2. Materials and Methods

We designed a service design (SD) innovation process where participative tools and methods were used. Kajanus *et al.*, [4] have presented a Business Model (BM) creation process by using Multiple Criteria (MC) Decision Support techniques and portfolio analysis. This technique was now applied and adapted to facilitate the service design innovation process to develop staff restaurant business. The researchers designed and realized a co-creative innovation process together with the researchers and development group of the staff restaurant.

2.1 Design of context

Context definition was the first step in the innovation process. The project organized a one-week sub-study

in a staff restaurant in Helsinki region. The company has several staff restaurants which serve about 70,000 meals daily. The case restaurant serves about 500 meals daily and it also serves breakfasts. The clients come mainly from the companies located nearby. The staff restaurant also provides cafeteria services and services in a business center. In the sub-study, customers' food selection habits were observed and studied. This part of the study was organized by a Future Food Hub of Savonia University of Applied Sciences [7]. The sub-study produced information on needs and challenges from customer point of view. The one-week study was a starting point to create background information on challenges and needs. To help the context definition step, a questionnaire was sent to the researchers and to the company. The participating staff restaurant, two universities and two research institutes were interviewed as stakeholders of the innovation process. In the questionnaire, strengths, weaknesses, threats and opportunities were asked and identified. Also, the roles, existing or anticipated, of the stakeholders to the innovation process were asked. The answers were used when designing objectives, participants and context of a workshop. This step was done in October-December, 2016. Context definition for a workshop was done by January, 2017, and the workshop was organized in April, 2017.

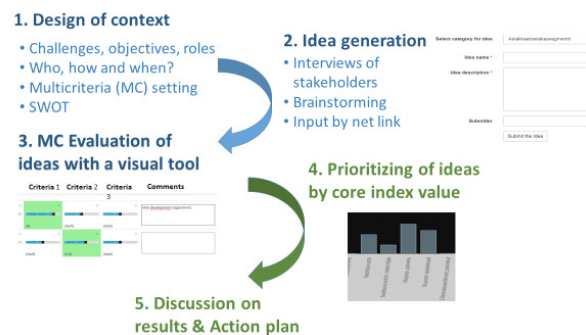


Figure 1. Innovation process in the development of staff restaurant services (Adapted from Kajanus *et al.*, [4] and Eskelinen *et al.*, [5])

Questions used in the context design step to develop customer point of view and customer experience:

1. Definition of challenges - Describe, what problem or challenge you would like to solve (for the client). Describe the problem or challenge with few sentences.
2. How to increase customer satisfaction? - A special report was elaborated on the customer needs and development items.
3. How to develop fluent and smooth customer experience, smooth food line or buffet?
4. How to give clear information to customers on changes occurring during lunch buffet, and how to

communicate special features of food such as allergens?

5. How to increase profitability and capacity of staff restaurant?

6. How to develop communication?

The purpose of second group of questions was to design goals of the innovation workshop: questions are designed from customer point of view – why innovation process would be needed?, from participants point of view, and from the organizational point of view.

SWOT analysis was done to find strengths, opportunities, weaknesses and threats connected to new business development.

2.1.1 Decision and actions needed

The participants to the innovation process were asked, which strategic actions and decision would possibly be needed after the workshop to enable creation of new business in the chosen topic. They were also asked, how the participants see their own role and value added.

2.1.2 Participants and stakeholders

Participants were asked suggestions for participants to a workshop. It was suggested that the participating staff restaurant should have a comprehensive participation. The development and business managers participated into the innovation process. Six other participants came from research institutes and universities. Savonia University of Applied Sciences facilitated the innovation process and workshop.

2.2 Idea generation and evaluation with a visual tool

Both the idea generation, and the evaluation were performed with Into tool (<https://into.savonia.fi>) in a half day innovation workshop. In Into, the ideas are submitted in the web application by writing the idea name and a short description directly to an idea category (Figure 1). Four idea categories were used. In the evaluation step (Figure 1), the evaluator gives a rank between 1 and 7 for each idea against the evaluation criteria. Four evaluation criteria were used. The grading was from 1 (= not at all good idea against the criterion) to 7 (= very good idea against the criterion).

2.3 Prioritizing of ideas by core index value

Core index values are used to map information and identify ideal portfolios of items. Core index values can support business model design processes by indicating items most probable to fulfill the contrasting

needs. The methodology of using core index values in portfolio analysis is described in Kajanus *et al.*, [4].

2.4 CIMO analysis

To summarize the process, Context, Intervention, Methods and Output (CIMO) analysis is used to describe and analyze the case study (Denyer *et al.*, [6]). The purpose of working with the CIMO-logic is to produce proposition for enabling understanding and learning on the explored phenomena. A proposition with CIMO-logic is formed as follows: for a problematic Context, use some specific Intervention that will invoke some generative Mechanisms that in turn will deliver the desired Outcome. The propositions thus not only inform on what to do in a specific situation in order to create a specific effect, but more importantly, they offer insight on why it happens (Denyer *et al.*, [6]; Lankhorst *et al.*, [8]). CIMO analysis has been used, for example to analyze public health sector innovations [8 and 9].

3. Results and Discussion

3.1 Design of context

SWOT analysis resulted into identification of following strengths: spending more time over the lunch than in the queue; freshness of the staff meal selection during high volumes and small volumes of waste. Other strengths identified were: strong brand, local origin of food, healthy food, utilization of experts in the development of products and services, and listening of customers.

Opportunities identified were: fast payment and successful planning of food line; modification possibilities of staff meals, and knowledge on substitute meals; identification of new opportunities.

Weaknesses identified were: client may act slowly when selecting meals which causes queues; drinks and dessert slow down the queue if they are available in the same line than meals; unclear product markings which causes disappointments, for example, improper tags on allergens may cause problems when changes are made on meals selection; environment in the staff restaurant; food service line not working well; tough competition, and location of the staff restaurant.

Threats identified were: decreasing volumes; clients might get ill due to some food ingredients; economical risks; polarization of clients (which client is heard and to whom food is produced); old imago.

As a result of joint discussion, the following overall goals were decided for the innovation process:

1. How to create faster client flow, maximizing of sales in rush-hours, and better customer satisfaction?
2. Cost-beneficial buffet planning and acquisitions.

3. Finding of a model for the forecasting of taste preferences.
4. Development of clear communication on changes in the staff-meal offering.

3.2 Idea generation

The goals were used when selecting the categories for idea generation:

1. How to increase customer satisfaction.
2. Smooth customer experience; well working lunch line or buffet.
3. Profitability and increasing of utilization rate.
4. How to develop clear information and communication on changes (in staff meals or other).

3.3 MC evaluation of ideas with a visual tool

The evaluation criteria for ideas were discussed and decided in a joint discussion, and they were:

1. Idea increases customer satisfaction;
2. Idea increases cost-efficiency;
3. Idea is feasible; and
4. Idea makes communication better.

3.4 Results from idea generation and evaluation

The workshop was organized in April, 2017 and it had seven participants: company providing staff restaurant services, University of Applied Sciences Future Food Laboratory, Health research institute, University food research personnel. The idea generation generated 51 ideas. The ideas were evaluated by all 7 participants with a web based evaluation tool (www.into.savonia.fi) against the four evaluation criteria.

The fast evaluation of 51 ideas (Table 1) took about 30 - 60 minutes and it resulted into 994 individual grading's of ideas against an evaluation criteria. 75 verbal comments and development ideas were given and one overall comment on the evaluation process.

Table 1. The number of ideas in idea categories (number of ideas belonging to top 10 according to core index in portfolio analysis)

Idea category	Number of ideas, n	Ideas in top 10, n
1. How to increase customer satisfaction	19	4
2. Smooth customer experience; well working lunch line or buffet	12	3
3. Profitability and increase of utilization rate	9	0
4. How to develop clear information and communication on changes	11	3

Altogether, 81.2% of possible evaluation grades were given, which shows the evaluation was quite comprehensive. Visual evaluation interface helps the evaluator to rank many ideas at the same time. Into tool also allows the evaluator to give verbal comments at the same time when the ranking is done.

Core index values were used to prioritize the ideas which were listed and given to the participants. These comments can be used in the further development and implementation of ideas (Table 2).

Table 2. CIMO analysis on the innovation process to develop staff restaurant services

Intervention	5-step innovation process
Mechanism	Identification of challenges and development needs through participative co-creation process produces interaction with customer/end user and stakeholders
Outcome	Prioritized list of actions and suggestions for further implementation.

4. Conclusions

- As a conclusion, the process increased interaction between customer/end user and other participants/stakeholders. A sub-study produced extensive information on needs and challenges from customer point of view.

- New ideas were created in a participative process and evaluated fast track with a visual web based tool, resulting into comprehensive data which makes prioritizing of ideas and actions much easier. Next step will be implementation process for the best ideas.

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