

Creation of a Method for the Adoption of Digital Transformation for Medium Enterprises in the Education Business in Switzerland

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Abstract: The education sector, like most others, is currently experiencing a rapidly advancing digital transformation. Due to the current COVID-19 pandemic, this process is taking place faster than it would have without the virus. Currently, there are no methods that allow the affected educational institutions to quickly and efficiently implement the digital transformation. As a first step of this work, online research was conducted to determine the current state of digital transformation in the education sector in relation to the elaborated requirements. To identify differences between educational institutions of different sizes and to reach a specific analysis of the domain, the educational institutions were divided into different categories according to the number of their employees. A survey was then prepared and sent to all identified educational institutions for processing. The main goal of the survey was to reflect the current state of the educational institutions. Furthermore, the requirements as well as the efforts of the individual institutions in the area of digital transformation were of high interest. As a second step, based on the analysis of the survey, a method was created to support the educational institutions in the digital transformation, taking into account their current situation and their progress and status of digital transformation. For further research, a more detailed investigation of how the method works in practice could be conducted.

Keywords: Model, Method engineering, Digital transformation

1. Introduction

Digital transformation has gained relevance over the past few years and become a central topic in the industry. New digital technologies such as cloud computing, mobile, analytics, social media, robotics and Internet of Things pushed digital transformation even further. Digitization has an impact on all geographies, industries, and companies although the effect comes at a different time and speed for each and every company. Due to these circumstances, many industries have been facing a market shift driven by customer demand. These evolving demands force the enterprises to undertake digital transformation, start projects or, therefore, they are left behind the competition. In order to be agile and capable to respond to the market changes, the market players have to adopt a different approach and implement changed culture, processes, structures and strategies in their company.

The COVID-19 pandemic has made it obvious (e.g. home schooling) that the sector of education has been particularly affected by the disease 2019 and is often not as well positioned digitally as other business areas. The fact that the education sector is one of the largest in Switzerland and that the level of digitalisation in this area affects not only employees but also other people such as pupils and students, was another reason for this decision. In Switzerland, public authorities manage most schools. Across all levels of education, 86% of schools are public. Furthermore, around a third of private schools are subsidised (35%) (FSO 2023). In compulsory education, three-quarters of public schools and almost all private schools have fewer than 100 pupils. At upper secondary level, private institutions account for 44% of schools but only one-sixth of learners, with the majority of private schools having fewer than 100 pupils. Three-quarters of private schools and about one third of public schools offer several educational levels. 80% of private schools are located in communes with highly dense populations, compared with 57% of public schools (FSO 2023).

2. Survey

The authors chose a survey based on the size of the statistical population. The **Federal Statistical Office** Section Educational Processes in Switzerland defined the statistical population in 2018 with 369 businesses in the education sector the range of 50-249 employees. This status denotes the educational institution's type of legal and/or financial authority. Educational institutions are either public or private. Furthermore, private educational institutions are subdivided into government-dependent private and independent private institutions. An educational institution is considered to be public if it is directly under the management of a public administration (communal or cantonal authority, etc.) or is directly managed by a public body with a majority of members having been appointed by a public authority or elected by the public. An institution is considered to be private if managed by a non-governmental entity (church, trade union, company, etc.) or if its board of directors mainly consists of members that have not been appointed by a public authority. In addition, Switzerland has private educational institution that receives 50% or more of its core funding from public authorities. The last category

represents educational institution that receives less than 50% of its core funding from public authorities (FSO 2023). Due to the bigger statistical population a quantitative research approach is according to Creswell a well fitted method (Creswell 2003).

2.1 Methodology

2.1.1 Study design

The authors conducted a survey based study within the education sector (Ermakova et al. 2016). For this study a mix of open questions, in which the participants could enter their answers themselves and closed questions, in which possible answers are given, was selected. The online survey was created and executed in a web-based tool. The entire questionnaire was divided into the following parts:

- Classification questions about the company and evaluation whether the questioned company is relevant for the survey
- Classification questions on the participants knowledge
- Additional questions about the companies' digital maturity
- Main part of the survey with the core questions about the importance of the requirements for digitization and digital transformation in the organisation
- Additional questions about the effects of the coronavirus and the effects on the digital transformation
- Voluntary questions about the participant and the company

In order to cover and gather data in all different cantons, the data collection throughout Switzerland was fulfilled in German, Italian and French. This made it possible, for example, to compensate for differences between urban and rural cantons and provide a scientific research.

2.1.2 Survey structure

In the process of creating the questionnaire, the authors went through the following steps, with the last step being discussed in more detail afterwards (Small 2011):

1. Development of the superordinate questionnaire structure
2. Development and search of concrete questions
3. Selection and optimisation of questions (in team)
4. Creation of the complete questionnaire and its structure
5. Pre-test and optimisation

During step five, a pre-test questionnaire was sent to a small number of participants. Every constructed survey instrument should be subjected to such a pre-test before it is used nationwide. This was mainly to clarify the following points:

- Check the comprehensibility of the questions
- Determine difficulties of the test persons when filling out the form
- Determine the variance of the questions
- Check clarity of categories and category formation
- Technical functionality to be tested under the field condition

In order to be able to supplement the quantitative survey, a qualitative procedure is being chosen for the pre-test, in which a few people are interviewed. Therefore, feedback and remarks on the survey can be gained directly from the interviewed persons (Small 2011).

The test persons should be as similar as possible to the target group and the questionnaire should be filled out under the same conditions as the latter, large-scale test. According to the definition of a pre-test, feedback was collected from the participants.

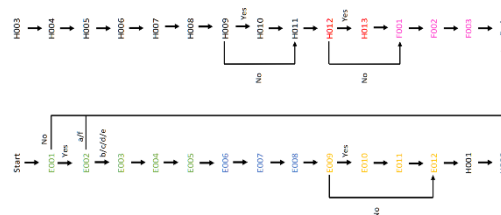


Figure 1: Survey Structure

As previously mentioned, the survey was divided into six question clusters. These clusters allow to build up a well-structured survey and thus guide the participants effectively through the survey.

The first cluster contains classification questions, which are designed to learn more about the company (marked green in Figure 1). The first two questions refer to the number of employees. If these answers indicate that the number of employees are not anywhere between 50 and 249, then the participant is taken directly to the end of the survey, as shown in Figure 1.

The second cluster again contains classification questions (marked blue in Figure 1). However, these three questions are designed to find out more about the knowledge of the participants. This enables a better assessment of the subsequent answers to the survey and, if necessary, to identify an outlier as such, should the participant have rather limited expertise in the field of digitalisation and digital transformation.

Using four questions, the third question cluster is intended to find out whether there is a person in the company who has the responsibility for implementing digitalisation and digital transformation, what role that person holds and whether it is that person who completes the survey (marked yellow in Figure 1). The fourth cluster contains the main questions with all requirements identified by the authors (marked black in Figure 1). Each requirement has to be ranked on a Likert scale according to its importance for the education sector. The answers given from this cluster provide the basis for the development of the method. Based on the results, it is then possible to find out whether and which requirements must necessarily be included in the method.

The fifth cluster of questions relates to the COVID-19 pandemic (marked red in Figure 1). Participants are asked two questions to indicate whether the pandemic has had an impact on both digitalisation and digital transformation, and if so, what this impact has been. In the last cluster of questions there are only voluntary questions (marked pink in Figure 1). If desired, personal and company details may be entered here and contact details for the results of the study may be added.

2.2 Findings

The survey generated for this research was active for three weeks and could be completed by anyone who received the link to the survey. During this time, the survey was completed and answered by 230 different people. Out of these 230 participants, 141 completed the survey, while 89 participants abandoned the survey. As can be seen in Figure 2 below, the system was unable to detect when 14 participants dropped out. A further 15 participants dropped out of the survey before the first question. After that, the number of number of respondents which abandoned the survey dropped off very sharply. Two questions are an exception. For the questions "Have you ever been involved in a digitalisation or digital transformation project within your organisation?" and "How important are the following requirements/factors for successful digitalisation or digital transformation in your organisation?", six respectively seven participants dropped out of the survey.

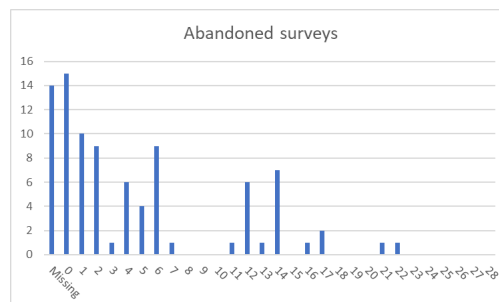


Figure 2: Abandoned surveys

The survey was prepared in three Swiss national languages and was thus also sent to all language regions. The response rate per language, in relation to all answers, can be seen in the following Figure 2 and in relation to the completed responses in Figure 3.

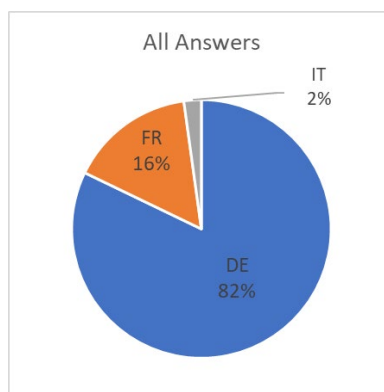


Figure 3: Percentage breakdown of languages (all responses)

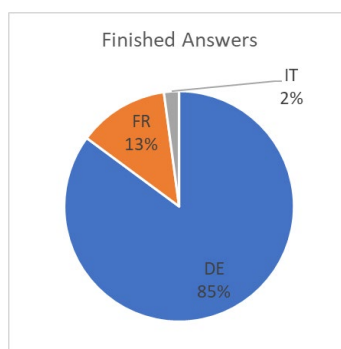


Figure 4: Percentage breakdown of languages (finished answers)

Out of the 141 participants who completed the survey, 71 were routed directly to the end of the survey by question one or two, which restricted the size of the company to more than 50 and less than 249 employees. This leaves 70 valid and complete responses, which will be considered for evaluation of the remaining questions. Out of a total of 369 companies, 19% companies participated in this survey. The questions that were intended to test the participants' background knowledge were answered by these 70 participants in such a way that no further exclusions were necessary. As can be seen in the following Figure 5, exactly 50% of all participants considered were principals. The remaining 50% held the positions of: Rector / director / head of department (20%), teacher or lecturer (13%), member of a staff unit (7%), chief information officer (2%), chief execution officer (1%) or another position (7%).

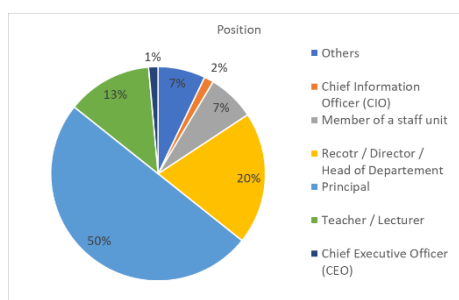


Figure 5: Position of the participants

The two education levels “primary” and “secondary” represent the main share of survey responses (see Figure 6). In contrast, the tertiary education sector and the continuing education sector are weakly represented.

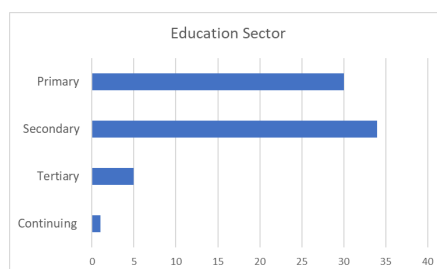


Figure 6: Number of participants based on the education sector

The distribution of privately or publicly run companies roughly corresponds to the expectations of the authors. Over 85% of the observed participants work in a public company.

The importance of digitalisation or digital transformation was rated as “rather important” or “very important” in the survey by 94.3%. Only 5.7% of the answers considered were “neither important nor unimportant”. This picture is also reflected in the question of whether there is a responsible position for digitalisation within the company. 75% answered this question with “Yes”. The responsible positions can be seen in Figure 7 below.

31 out of 52 companies which stated that there is a responsible position within the company who is in charge of digitalisation were participants in the online survey.

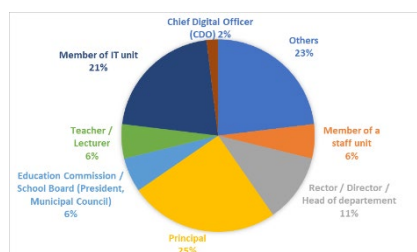


Figure 7: Percentage distribution of positions responsible for digitalisation

Within the authors’ prior research, 26 different requirements were identified as important for a successful adoption of digital transformation. During the online survey, these 26 requirements were classified by all participants in a five-level Likert scale. This scale ranges from “not important” to “very important”. In order to be able to optimally assess the importance of each individual requirement and to be able to carry out a well-founded analysis, the five-level Likert scale was transformed into a top and a bottom box. For this purpose, the three levels “not important”, “rather unimportant” and “neither important nor unimportant” were classified in the bottom box. The two upper levels “rather important” and “very important” from the top box. With 98.6% each, the most important requirements for the survey participants are “Appropriate infrastructure” and “Proper training & learning opportunities”. The following five requirements, all of which have an approval rating over 90% (see Table 1).

Table 1: Most important requirements

Requirements	Top Box
Being open to mistakes and imperfection	91,5%
Communicate the digital vision	92,9%
Flexible and adaptive employees	94,3%
Trust and security	97,1%
Being open to change	97,2%
Training and learning opportunities	98,6%
Appropriate infrastructure	98,6%

The requirement which predominantly was rated as “not as important” by the participants is “Understand the importance of Big Data”. Said requirement was placed in the bottom box by 60% of all respondents. Based on the results of the survey, it was decided that the requirements which were classified in the top box by at least

60% of the participants would be included in the method to be developed. The limit was set at 60% in order to represent the assessment of a clear majority and to be able to absorb possible deviations from certain educational levels or company sizes. This threshold excludes the following three requirements from the method:

- Understanding the importance of Big Data
- Understanding the importance of API
- Being digital

The third requirement in particular, “being digital”, was rated contrarily. At the primary education level, only 10% rated this requirement as “very important”, while in the tertiary education level 60%. However, since the tertiary education sector was not as strongly represented in the survey as the primary and secondary education sectors, this difference does not matter as much.

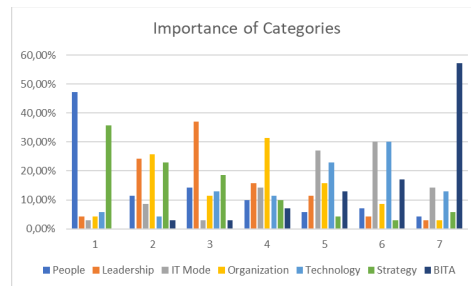


Figure 8: Importance of Categories

As can be seen from the previous Figure 8, the category “People” was rated as most important by most survey participants, while “BITA” is the least important.

The remaining 23 requirements are considered in the method development. The complete list of requirements and their categories can be found in Table 2.

Table 2: Considered requirements

Category	Nr.	Requirements
People	1	Proper training & learning opportunities
	2	Flexible & adaptive employees
	3	Technical talent and digital capabilities
	4	Planning initiatives
	5	Platform utilization capabilities
	6	Continuous assessment of competences
Leadership	7	Top-down approach (combined with bottom-up approach)
	8	Top management support
	9	Pro-actively driving the change by the executive leaders
	10	Communicating the digital vision
	11	Understanding digital processes, needs and the power of digital technologies
	12	Being open for imperfections and failures
IT Mode	13	Combination of an operational backbone and a digital services platform
Organisation	14	Trust and security
	15	Being open for changes
	16	Agile working methods

Category	Nr.	Requirements
	17	Being responsive to demand changes and need of customers
	18	Understanding the meaning of digital transformation to the organisation
Technology	19	Digital services platform
	20	Appropriate infrastructure
Strategy	21	The existence of a digital business strategy
	22	Flexible and aligned digital business strategy
BITA	23	Close collaboration between business and IT

As part of the online survey a total of 17 additional requirements were named by the participants, which they also consider important for the adoption of digital transformation. Some of these can be understood as a combination of already existing requirements. For example, the requirement to “consciously shape one's own learning at all levels and develop a culture of failure in the company” is already covered by the two requirements “Being open for imperfections and failures” and “Proper training & learning opportunities”. Other requirements, some of which were also mentioned several times, such as “money” or “time”, cannot be classified as requirements. For this reason, no further requirements were integrated into the method.

These previously mentioned terms, such as “money” or “time”, were covered by the question “What would you need to improve digitalisation or digital transformation in your company?”. The results of this question can be seen in Figure 9 below.

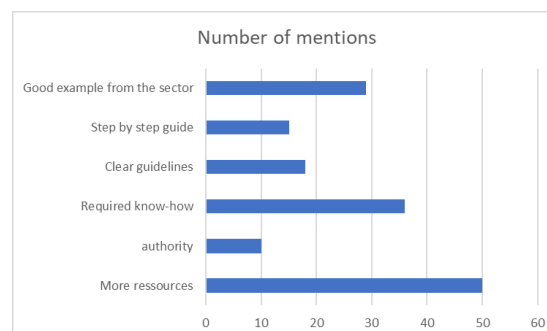


Figure 9: Necessary adjustments for a better digital transformation

Due to the COVID-19 pandemic, which was spreading at the time of the online survey, the effects of this pandemic were also included in the survey. 81.3% of the participants stated that the pandemic had an impact on digitalisation or digital transformation in their company. However, 54.3% of the participating companies only had to make minor adjustments because digitalisation was already advanced. 34.3% stated that new hardware or software had to be procured and 5.7% stated that the organisation had to make profound changes and large purchases.

3. Creation of a Method

3.1 Methodology

Lorenz (1995) defines a method as a process which is planned and systematic in terms of its means and purpose, and which leads to technical skill in resolving theoretical and practical tasks. According to Becker (2004) the aim of method-oriented research is to understand and develop methods and techniques for Information Systems (IS) analysis, design and utilization. The herein proposed method is created with practice in focus. As such, Braun et al. (2005) determined, based on a meta-analysis on method engineering, that surveys and interviews are commonly used empirical methods.

3.2 Derivation of Goals From Verified Requirements

In a first step, the authors have analysed the 23 verified requirements and determined for each requirement a goal or a combination of goals, which would fulfil the requirement. An effort was made to describe goals as measurable and as detailed as possible, however this was not possible for all requirements.

Table 3: Mapping of Requirements to Goals

Requirement Nr.	Goal
1, 2, 3, 4, 5, 6, 12, 16	Educational curriculum, yearly re-assessed and monitored for completion
2, 3, 15	Recruitment program including digital requirements which new-hires must have
7, 8, 9, 10, 11	Project budgets, guiding coalition, company-wide communication of signed off budget, townhall meetings
19, 20	Digital assets requirements Specification of operational backbone Specification of digital services platform
14	Risk Analysis, Security requirements, Security policies
17, 18, 21, 22	Digital business strategy
23	Close collaboration between Business and IT

3.3 Derivation of Techniques From Goals

The next step in the creation of a method was to derive specific techniques and activities which can be applied to achieve the described goals and bring them into an order which follows existing design principles and makes the method repeatable. First of all, it is imperative that the proposed sequence of techniques is followed, which outlined in sub-chapter D. Technique 1 “Strategy” creates the framework for the following techniques. Similarly, technique 2 “Planning” produces the budget and is used to assign digital leaders, which act as key responsables in the following techniques. During the first two techniques, the user is encouraged to assess whether the goals of techniques 3 to 7 are of importance to their digital transformation journey. For example, it might not be mission critical for a given company in the education business to have a digital recruitment program if they already have a satisfactory recruitment program in place. In such cases these techniques can be skipped.

The proposed techniques are to be applied over the course of one calendar year. This has to be taken into consideration in the first two techniques, in combination with the evaluation of which the optional techniques (3 to 7) should be applied in the current year. User companies are encouraged to lay out a five-year-plan and possibly spread the optional techniques over several years to cover each at least once. Applying a technique for the first time will require significantly more resources than consecutive applications where the activities are repeated without substantial implementation effort.

The activities have been derived from the goals by a combination of the following:

- Professional expertise of the authors (management consulting, IT project lead, business analytics)
- Abduction from unstructured literature research

3.4 Specification of Techniques

Techniques are detailed recommendations for action on how to achieve a certain goal (Kaiser et al 1999). In the following paragraphs the proposed techniques are described.

3.4.1 Strategy

Create digital business strategy which is aligned with overall strategy

As a first step we propose the creation of a digital business strategy (DBS) which is defined as an organisational strategy that highlights the business value which can be created by leveraging digital technologies. A key characteristic of a DBS is that it merges business and IS-strategies (Bharadwa et al. 2013, Grover and Kohli 2013). Companies in the educational sector need to address the following questions in order to create a meaningful DBS:

- Which of our current services can we provide digitally?

- Which of our current services can be altered by digital technologies to enhance the customer experience?
- Which internal processes (core or supporting) can we make more efficient and/or more effective by using digital technology offerings?

Derive project portfolio from digital business strategy

After the creation and sign-off of the DBS, a project portfolio can be derived (Madauss 2018):

i. Identification

Creation of an up-to-date list of components (programs and projects) to pursue.

ii. Categorisation

Categories are created based on the overall strategy and components are assigned to the suitable categories.

iii. Evaluation

All pertinent information related to components are gathered so that an evaluation can be performed. The information can be qualitative or quantitative and the collection of information must be repeated until an adequate level of accuracy is reached.

iv. Selection

Based on the previous evaluation, the produced graphs, charts, documents and recommendations are inspected to perform a selection of components that the organisation should pursue, based on the organisations resource capacities.

v. Prioritisation

Components are ranked within each of the following elements: Category, investment time frame, risk versus return profile and organisational focus.

vi. Portfolio Balancing

Based on the previously produced rankings the organisation should come up with a portfolio component mix with the greatest potential to achieve the DBS without putting the organisation at a higher risk than the organisation's risk appetite allows.

vii. Authorisation

The project portfolio is communicated to management for sign-off.

3.4.2 Planning

Appoint project managers and form guiding coalition (Business + IT)

Madauss defines the task and responsibilities of a project manager as follows: "Achievement of the previously specified project goal within the given budget and time frame" (translated from German) (Madauss 2018). As previously identified, for digital transformation-related projects it is imperative that both business and IT are aligned, therefore ideally the project manager already has an interdisciplinary role in both areas. Alternatively, projects can be co-managed by a combination of a business representative and an IT representative. In the end, the project managers need to act as a powerful guiding coalition within the company (Sebastian et al. 2017).

Analysis of required budget for digital initiatives

Project managers need to consult various sources in order to prepare a sound estimate of the required resources for the digital transformation projects. In the context of the education business we suggest to not shy away from consulting with external consulting experts which have experience with transformational efforts in the education sector – however we suggest to draw the line in terms of the scope of work at the design level and project support.

3.4.3 Communication

Top-management signs off on budget

After the budgets have been discussed with the principal and final adjustments have been made, the budget shall be signed off. At this step it is important to clearly communicate not only the project goals but also the overarching vision and strategies which these projects aim to implement to the whole company staff. At minimum this communication should happen via a formal conference meeting with Business and IT attending.

Guiding coalition and top-management present their initiatives

A series of conference meetings shall be held, in which the respective project managers present their project in terms of goals, activities and key contacts. Top-management shall be present to underline their support of these projects and again highlight the transformational vision.

Guiding coalition has weekly touchpoints with Business and IT for updates and requests

In order to foster alignment between Business and IT, it is crucial that a platform is offered where the two divisions can openly discuss project updates, additional requests and any other business. These meetings should be held by the guiding coalition which manages the projects and is therefore responsible for healthy communication channels.

3.4.4 Recruiting

Analysis of recruitment requirements in regards to digital

Based on the project portfolio an analysis shall be carried out in order to determine which digital capabilities the current staff is lacking.

Create recruitment program which stipulates the percentage of new-hires which must meet digital requirements

The previously identified recruitment requirements shall be taken into consideration when creating the digital recruitment program. Digital capabilities should be considered in recruitment efforts and certain measurable goals should be set up to track effectiveness of this program.

Re-assess recruitment requirements yearly

The authors previous studies have shown that such requirements need to be re-assessed regularly as these might change due to the ever-changing nature of digital trends and needs.

3.4.5 Training

Analysis of educational requirements in regards to digital

Based on the project portfolio an analysis shall be carried out in order to determine which digital capabilities the project teams on one hand and the whole company staff on the other hand must have.

Re-assess educational requirements yearly

The authors previous studies have shown that such requirements need to be re-assessed regularly as these might change due to the ever-changing nature of digital trends and needs.

Identification of training offerings which match the educational requirements

Training offerings can range from online tutorials and online classes to technology boot camps and live classes (internal or external).

Monitor training completion yearly

To ensure that employees are being trained on digital skills effectively, training monitoring is imperative.

3.4.6 Digital assets planning

Identification of requirements which digital assets need to have for digital services according to strategy

In step 1.1 the digital business strategy has been created which includes a definition of the digital services to pursue. In the current step the company needs to define which characteristics the digital assets need to have so that those digital services can be brought to market. The authors encourage to decide at this point whether the IT systems through which the digital services will be provided should be maintained in-house or maintained by a service provider.

Specify operational backbone

Depending on the kind of digital services, an operational backbone may be required which ensures the efficiency, scalability, reliability, quality and predictability of core operations (Sebastian et al. 2017). A specification document shall be created which defines the characteristics of the operational backbone as an input to the respective project which implements the digital asset or upgrades the existing digital asset respectively.

Specify digital services platform

Based on the authors research, having a platform on which digital services can be provided is a key requirement for a successful digital transformation. This platform can have a broad definition; however, it should be defined to fit the digital services which the company has set out to provide.

3.4.7 Security planning

Analysis of threats and current weaknesses

At this stage the digital assets are defined, hence threats and weaknesses of these digital assets need to be evaluated. For most commercially available platforms such information can be easily retrieved through a web query. For self-developed solutions we recommend to consult the initial developers to support on this evaluation.

Identification of security requirements

Based on the previously identified threats and vulnerabilities the security requirements can be deduced, such as:

- implementation and maintenance of a firewall protecting the web server
- implementation and maintenance of an Intrusion Detection System on the web server
- Password requirements need to follow best-practices

Creation of security policies

Policies need to be defined which make sure that security requirements are implemented and upheld. These policies should be aligned with the overall digital business strategy; hence they should secure the owned platforms to a degree where customer's trust and safety is ensured. In the case that platforms are hosted on infrastructure owned by a service provider, management needs to take action to gain comfort over security policies implemented at the service provider as well.

Table 4: Techniques, activities and goals for the adoption of digital transformation for medium enterprises in the education business in Switzerland

Technique	Activities	Results / Goal
1. Strategy	Create digital business strategy which is aligned with overall strategy	Digital business strategy
	Derive project portfolio from digital business strategy	Project Portfolio
2. Planning	Appoint project managers and form guiding coalition (Business + IT)	Guiding Coalition
	Analysis of required budget for digital initiatives	Project Budgets
3. Communication	Top-management signs off on budget	Company-wide communication of signed off budget
	Guiding coalition and top-management present their initiatives	Townhall meetings
	Guiding coalition has weekly touchpoints with Business and IT for updates and requests	Close collaboration between Business and IT
4. Recruiting	Analysis of recruitment requirements in regards to digital	Recruitment program including digital requirements
	Create recruitment program which stipulates the percentage of new-hires which must meet digital requirements	
	Re-assess recruitment requirements yearly	
5. Training	Analysis of educational requirements in regards to digital	Educational curriculum, yearly re-assessed and monitored for completion
	Re-assess educational requirements yearly	
	Identification of training offerings which match the educational requirements	

Technique	Activities	Results / Goal
	Monitor training completion yearly	
6. Digital assets planning	Identification of requirements which digital assets need to have for digital services according to strategy	Digital assets requirements
	Specify operational backbone	Specification of operational backbone
	Specify digital services platform	Specification of digital services platform
7. Security planning	Analysis of threats and current weaknesses	Risk analysis
	Identification of security requirements	Security requirements
	Creation of security policies	Security policies

4. Conclusions

This paper shows which requirements are relevant for adoption of digital transformation in the education sector. The focus was set on companies between 50-249 employees in Switzerland and provides a method to adopt digital transformation for such institutions. In a first step of the requirements, which are relevant for a successful adoption of digital transformation, were evaluated with an online survey as a quantitative research approach. The statistical population of the survey was defined as 369 companies in Switzerland and 70 valid respondents could be gathered.

As results of the quantitative research, three out of twenty-six identified requirements were eliminated due to the online survey but no new requirements were found. 23 out of 26 existing requirements were declared as important from at least 60% of the respondents and could be confirmed. Another finding is that COVID-19 had an impact on digitalisation or digital transformation. 81.3% of the questioned companies had to adjust in their planning.

The verified requirements were taken as a basis and transformed into reachable goals. As a result, the main techniques and activities to adopt digital transformation are combined in a method. Medium enterprises in the education sector can consult this method and apply it as a guideline on their digital transformation journey. The method shows the educational sector the relevant steps to adopt digital transformation and fills a research gap that was identified in a prior study.

For further research the created method could be tested in the field to gather additional information. With the supplementary information or identified gaps the method could be adjusted and would allow to improve the created method. Furthermore, it would be interesting to validate this method in different sizes of enterprises or in other sectors besides the educational sector in Switzerland. It would also be interesting to apply this method outside of Switzerland or Europe altogether to study how culture differences influence the outcome of the digital transformation journey.

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