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PROPOSAL FOR THE VALUE PROPOSITION DEVELOPMENT

NÁVRH ROZVOJE HODNOTOVÉ NABÍDKY

BACHELOR'S THESIS

BAKALÁŘSKÁ PRÁCE

AUTHOR — Patrik Hudec

AUTOR PRÁCE

SUPERVISOR — doc. Ing. Robert Zich, Ph.D.

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Goals of thesis and methods
Theoretical review of problem
Analysis of contemporary situation
Proposal of solution
Conclusion
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Appendixes

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The main objective of the thesis is to define the value proposition for the development of business activities on the basis of relevant theoretical background, research and analysis. The aim of the theoretical part is to define an appropriate approach to the development of the value proposition. The aim of the analytical part is to identify the key internal and external factors of value proposition development. The aim of the proposal part is to define a new value proposition. including recommendations for implementation and an assessment of the impacts and assumptions of implementation.

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Abstract

This bachelor's thesis focuses on the development of the value proposition of a company providing professional development of teachers in primary and secondary education in Slovakia. The theoretical part defines the theoretical concepts related to the development of the value proposition. The analytical part focuses on the key internal and external factors and stakeholders influencing the business of the company in the development of value proposition. The proposal part of the thesis combines obtained inputs to define a new value proposition of a company with recommendations for its implementation.

Keywords

value, value proposition, customer, digital transformation, education, product

Abstrakt

Táto bakalárska práca sa zameriava na tvorbu hodnotovej ponuky spoločnosti, ktorá zabezpečuje profesijný rozvoj učiteľov základných a stredných škôl na Slovensku. V teoretickej časti sú vymedzené teoretické koncepty súvisiace s tvorbou hodnotovej ponuky. Analytická časť sa zameriava na kľúčové interné a externé faktory a zainteresované strany ovplyvňujúce podnikanie spoločnosti pri tvorbe hodnotovej ponuky. Návrhová časť práce kombinuje získané vstupy pre definovanie novej hodnotovej ponuky podniku s odporúčaniami pre jej implementáciu.

Klíčová slova

hodnota, hodnotová ponuka, zákazník, digitálna transformácia, vzdelávanie, produkt

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Affidavit

I declare that the present bachelor project is an original work that I have written myself. I declare that the citations of the sources used are complete, that I have not infringed upon any copyright (pursuant to Act. no 121/2000 Coll.).

Brno dated 13th May 2024

Patrik Hudec

author's signature

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Contents

Introduction

The society of today is changing globally thanks to the modern technology being adopted rapidly across all industries and segments. This trend is naturally affecting the educational landscape with the goal to prepare the future generations of workforce to the challenges and opportunities posed by the digital transformation. It all starts with primary and secondary education and the effects of a recent global pandemic accelerated the technological adoption in schools as never before. But the mere presence of the technology in schools will not result in the desired outcome.

For the digital transformation of education to be successful, a technologically skilled staff of the schools is crucial. Teachers need to learn how to use modern technology and software in a way, which allows the schools its integration to foster digital literacy skills of students and complement the traditional methods of teaching, not the other way around.

This starts with the professional development of teachers, and it poses a challenge addressed by companies offering education of schools' staff in the areas connected with the use of digital technology in education. One of these companies, anonymized and referred to as "Company XYZ" is in the main focus of this thesis.

Company XYZ currently operates as a provider of actualization education of primary and secondary schools, specifically focusing on the usage of Microsoft 365 cloud innovatively in the classrooms. The company is undergoing a digital transformation itself, with the plan of the founder being to shift from providing in-person seminars and workshops in schools to a digital educational products offered online for the self-development purposes of the teachers.

This thesis focuses on the development of the desired digital product portfolio by looking at the key aspects, trends and stakeholders affecting the value proposition of Company XYZ. It serves as the tool to understand the current value proposition, its change by the planned business decision of the founder and provides a foundation for concrete product portfolio including steps for its implementation.

DEFINITION OF PROBLEM, GOALS OF THE THESIS AND METHODS UTILIZED

Problem definition

Company XYZ is a small company established as a side-project of the founder while working with Microsoft 365 technology in education as part of their primary job. The focus the company is ensuring, that the digital transformation of education is taking place effectively by helping teachers and schools use the newest technology in their practice and during lessons. With the goal of preparing the students for the digital age. This is currently taking place via in-person seminars and interactive Microsoft 365 workshops for primary and secondary schools in Slovakia as part of the professional development of teachers. Thanks to this, Company XYZ knows the educational landscape both as a provider of quality professional education and also from the perspective of a teacher, since the founder themselves taught at a secondary school in the past. They know the ways of the practical showcase of technology and have a deep understanding of Microsoft products.

Lately, the Company started exploring the idea of creating a digital product portfolio to move their entire business operation to the online environment. This change will directly affect the business model and value proposition of Company XYZ. Although the company has some experience with online educational products, it does not currently know how the competitors stack up regarding self-development of teachers and does not know the exact expectations of the customer segment in question in regards to their learning preferences and needs.

In order to successfully handle this change, there is need for the development of a complex digital product portfolio, utilizing parts of the current value proposition and considering roles of the different stakeholders affecting the business operation, resulting in the establishment of a new value proposition of Company XYZ.

Setting the goal of the thesis

The main objective of the thesis is to define the value proposition for the development of business activities on the basis of relevant theoretical background, research and analysis. The aim of the theoretical part is to define an appropriate approach to the development of the value proposition. The aim of the analytical part is to identify the key internal and external factors of value proposition development. The aim of the design part is to define a new value proposition. including recommendations for implementation and an assessment of the impacts and assumptions of implementation.

The partial goal of the theoretical part is to provide explanation of the theoretical concepts with the focus on the creation of customer value, value proposition, business model, digital transformation, and educational digital products for the use in next parts of the thesis.

The partial goal of the analytical part is to explain the current state of the business from the business model and value proposition point of view based on the concepts in the theoretical part. Additionally, the different perspectives affecting the proposal of the author will be evaluated. These include areas explained in the methodology of work.

The partial goal of the proposal part is to design a complex product portfolio consisting of educational digital products, define customer personas targeted by the proposal and provide the Company XYZ with steps for implementation and further development of the proposal.

Methods used

Quantitative vs Qualitative research

Quantitative research is focused on the empirical numeric data and their interpretation, with the usage of methods designed to measure and gather a large samples of data, which then can be generalized. To provide objective results, quantitative research requires a structured approach, which allows the researcher to stay uninvolved. Such data can be gathered from quantitative research methods like questionnaires or surveys. **Qualitative research**, on the other hand, focuses on the understanding of data, which cannot be measured statistically, such as human emotions, ideas, interpretations, and experiences.

The data gathered by qualitative research need to be interpreted by the author to obtain their meaning for the research results, introducing subjectivity into the mix. As opposed to quantitative research structure, the qualitative research methods can be more open and free form, often consisting of smaller data samples, a couple of respondents or focus groups. (1, p. 126-130)

Both of the quantitative and qualitative research approach are useful for this thesis and their methods are a part of the analysis.

Questionnaire

Questionnaire is a "generally highly structured data collection instrument" (1, p.158) consisting of diverse types of questions, which can be either closed, requiring a choice of single or multiple predetermined answers, yes/no statements etc., or open, giving the respondent space for expressing their ideas.

The structured nature of data collection in a questionnaire means that the results can be collected relatively fast, using multiple in-person and online channels. It is also easier to interpret the results, as they can be statistically depicted and measured, since the outputs of closed questions is numeric. However, with the use of open-ended questions, the complexity of the interpretation rises as the answers to these questions need to be coded. (1, p. 158-159)

An online questionnaire designed by the author of the thesis in collaboration with the founder of the Company XYZ is used to analyze customer's needs, struggles and preferences when it comes to the use of digital technology in education and related learning of necessary skills.

Interview

An interview is considered to be a primary source of data in qualitative research. It represents a 1:1 conversation between a respondent and the researcher with a given structure of questions curated and prepared before the interview itself. The researcher poses as a moderator of the discussion, staying impartial during the interview process and responsible for the interpretation of the responses after the interview. Due to the one-on-one nature of the interview, it dives deeper into the ideas and motives of the interviewed person, than a group qualitative research, such as a focus group. (1, p. 136-137, 157)

In the analytical part of this thesis, interviews with representatives of schools and the state are used to gather data about current state of professional education of teachers in Slovakia.

SWOT analysis

The SWOT analysis, firstly mentioned in the publication Business Policy: Text and Cases in year 1965 represents a model to summarize internal and external factors raising from the environment of a business to present them within the framework. It enables businesses to take a look at an issue or situation from 4 perspectives – **S**trengths, **W**eaknesses, **O**pportunities and **T**hreats. A SWOTs visual representation is often depicted as 4 quadrants divided by a horizontal and vertical axis. This offers a good clarity when looking at the results of the analysis and essentially divides the 4 parts into two "dimensions".

Across the horizontal axis by the definition of whether the factors contributing to the part are internal (Strengths, Weaknesses) or external (Opportunities, Threats), and by the vertical axis in terms of the nature of the impact – positive (Strengths, Opportunities) or negative (Weaknesses, Threats) (2)

SWOT analyses is used to summarize different aspects of the analytical part to support implications for the Company XYZ.

Customer personas

The concept of customer personas is closely tied with market segmentation. It enhances the defined market segment of a business by creating semi-fictional characters representing groups of customers identified by marketers with the support of quantitative and qualitative research. It embodies the market segments with the representation of their key characteristics and traits. (3, p.51,55-58) Customer personas typically include a combination of geographic, demographic, and psychographic characteristics defined by Kottler et.al. (4, p. 214-227) and are enhanced by goals and challenges of the persona, their preferences pain points and expected benefits.

Customer personas help businesses better imagine a specific market segment to apply the segmentation in real-life scenarios and are used throughout the thesis to describe customer segments.

Business Model Canvas and Value Proposition Canvas

Frameworks by Osterwalder et.al. (5)(6) are described in greater detail in the theoretical part of the thesis.

Benchmarking

"Benchmarking is a method of tracking target expectations with actionable results by comparing one's own company's performance with an industry average, a leader within the industry, or a market segment."(7, p.49)

It helps understand how the organization compares in their goods, services, and procedures by selecting relevant criteria (for example price, functionalities of products, UI of the website etc.) and evaluating how they stack up to selected competitors. One of the benefits of the benchmarking method is that it allows for the comparison of companies across different industries and market segments. (8)

Such evaluation identifies the ranking of competition in the examined criteria and offers insight for the internal development of the business.

Principles of external benchmarking method focused on the competitive aspects will be used for the initial phase of competition analysis to evaluate and find the most relevant competitors of Company XYZ.

Primary sources of information

Teachers

Customer analysis was conducted with the help of answers collected via an online questionnaire consisting of 57 respondents of primary and secondary teachers across Slovakia. The questions of the questionnaire can be found in the Annex III.

School management

For the analytical part, a series of interviews with school management was conducted to help describe the current state of professional development in primary and secondary schools in Slovakia. All of the interviewed schools use Microsoft 365.

Table 1 – List of the interviewed people
(Source: Author's own work)

Name	Position	School
Mgr. Ibolya Straussová	Deputy director for the 1st stage education	ZŠ a MŠ M.R. Štefánika, Školská 11/8A, Budimír
Mgr. Peter Pirončiak	School director	Hotelová Akadémia Liptovský Mikuláš
Mgr. Slavomír Hanuska	School director	Evanjelické gymnázium v Banskej Bystrici
PaedDr. Roman Baranovič	Executive director, Advisor of the Minister of Education in the topic of digital transformation	Združenie škôl C. S. Lewisa

Author's knowledge and experience

The topic of digital transformation of schools was experienced by the author first-hand during his work at Microsoft as part of the education team in Slovakia. His role of Educational Device Specialist was specifically focused on primary and secondary schools. Nowadays, the author works in the segment of professional skill development using Virtual Reality technology – one of the emerging trends in education.

Throughout this thesis, alongside primary and secondary sources of information, the author uses his knowledge about the educational landscape in Slovakia gained by numerous activities, conferences, and conversations with main stakeholders like teachers, school management, municipalities and representatives of the state.

The methodology of the analysis is depicted in the following table.

Table 1: Research structure of the analytical part
(Source: Author's own work)

Research area	Question asked	Objective	Method used
Current state of the company	1. What is the current business model of a company today? 2. What is the current value proposition of the business?	• Describe current state of the company using business model canvas as defined by Osterwalder et al.(6) • Identify current value proposition of the business.	**Research:** Desk research Interview **Analysis:** Business Model Canvas Value Proposition Canvas
Current state of the professional education in Slovakia	3. How does development of professional skills look like in schools?	• Describe professional development of teachers based on interviews with management of schools and the advisor of the MoE in Slovakia.	**Research:** Interview Desk research **Analysis:** +/- analysis
Global trends	4. What are the current trends driving school digital transformation?	• Identify emerging trends in school digital transformation and their potential impact	**Research:** Desk research **Analysis:** +/- analysis
Competition	5. What is the offering of digital educational products of competitors in Slovakia?	• Find relevant competitors of Company XYZ • Identify the strengths and weaknesses of relevant competitors • Define implications for the proposed value proposition of Company XYZ	**Research:** Desk research **Analysis:** Benchmarking Strengths and weaknesses
Customer	6. What are the needs and pains of the customers? 7. What are the preferred product categories? 8. What is the ideal price point for the product categories?	• Identify customer preferences regarding Microsoft 365 digital educational products • Create a customer profile based on the pains, gains, and tasks of the customers.	**Research:** Questionnaire Interview **Analysis:** Customer profile (derived from Value proposition canvas)
Product	9. What are the products offered by Microsoft, which support the digital transformation of education?	• Find Microsoft products which can be used for the proposal of digital product packages	**Research:** Desk research

1. Theoretical background of the thesis

1.1. Customer Value

Customers in the 21st century are being perceived as crucial part of company's success and managers of modern Customer-oriented businesses believe that they are "the company's only true "profit center""(4, p. 124) Thanks to modern technology, they are becoming more informed and educated at the same time, which is contributing to their rising expectations towards companies to offer a compelling value. (4, p. 124)

1.1.1. Customer perceived value

When deciding about a particular product or service, a customer will consider the benefits of the solution in comparison to its costs to identify the value of the solution. Customer evaluates these 2 aspects from the perspective of the whole process of owning/using the solution, from its initial acquisition all the way to its disposal. The perceived value is influenced by monetary factor, but there are also other non-monetary aspects like time, energy or psychological factors that determine the customer perceived value and thus create a way of comparison between different offerings. (4, p. 125-128)

1.1.2. Decision-making process

Kotler and Keller define a five-stage model of the buying decision process starting with the recognition of a customer's problem in need of a solution, and followed by the search for information about potential solutions and finding alternatives, all contributing to the formation of the value posed to the customer by each one. After finding the offer with the best value for the customer, a purchase decision is made. But the process does not end there, as the satisfaction or dissatisfaction with the product/service leads to other actions of the customer connected to its continuous use or temporary/permanent disposal. However, some stages can be skipped by the customers, depending on the perception of the product, for example in regular purchases. (4, p. 166-173)

Figure 1 - The Five-Stage model of the buying decision process

(Source: Author's own work based on (4, p.166))

To influence the customer throughout the decision-making process, businesses are trying to offer the maximum value with their products or services. This process can be divided into two main categories: Selecting the right segment for their offering and creating a compelling value proposition. (9, p.213) Businesses need to carefully divide market into smaller groups of customers via **market segmentation** based on geographic, demographic, psychographic and behavioral factors. This allows them to match their offering to the right segments, increasing efficiency and effectiveness of the business operation.

Creating a compelling value proposition is not only about the right product/service for the right segment of customers, but also about its **position on the market** and **differentiation** from other, equivalent products, resulting in a **competitive advantage**. The positioning is defined by the customer's perception of the product in relation to other alternatives. It is a "complex set of perceptions, impressions, and feelings that consumers have for the product compared with competing products." (9, p. 229) This happens by the nature of our brain to categorize and rank in order to make the processes – in this case the process of buying, more efficient. It is in the greatest interest of companies to step into this process to control and steer the position of their products to gain a competitive edge. However, the positioning needs to reflect a truthful company proposition and the differentiation needs to be backed up by the company operation. After considering the experience of the customer and the value proposition, a company can differentiate itself in product, services, channels, people, and image attributes. (9, p. 213-231)

1. **Product differentiation** – based on the product's features, design, or performance.
2. **Services differentiation** – based on the quality of the services the company offers, their speed and convenience for the customer.
3. **Channels differentiation** – based on the utilization of their channels and smoothness of processes.
4. **People differentiation** – based on the expertise, experience of their workforce and their training in customer-facing disciplines of the business operation.
5. **Image differentiation** – based on the brand of the company and its perception among customers.

1.1.3. Customer Segmentation

When offering a product or a service, it is not possible to connect with every single customer on the market. Therefore, businesses opt to the division of the market into **market segments**, which consist of groups of customers similar in their desires. The purpose of market segmentation is to define these groups of customers and choose the ones, which are the best for businesses' products and services. (4, p. 213-214)

Kottler et al. define 2 different approaches to market segmentation – Descriptive characteristics and Behavioral segmentation. (4, p.214)

Descriptive characteristics

This approach to the variables of market segments looks at the customers from 3 characteristics: geographic, demographic, psychographic and evaluates the differences between the segments in regard to their needs, wants and preferences expected from the product or a service. The goal with the identification of differences between the segments is to find relevant information about customer groups who value different aspects of the offering. Finding synergies between aspects of products and variables defining the market segment of customers is key to evaluate, which markets to enter, but also to effectively communicate the benefits of the company's value proposition. (4)

These characteristics are further broken down into more specific variables and they also differ whether the company is targeting individual customers (B2C) or companies (B2B). For the market segmentation of the B2C market, the descriptive characteristics include:

- **Geographic segmentation** – is dividing the market into smaller units based on the geographic location of the customers. This helps targeting to the specific culture, tastes and needs of the customers in the respective locations. (4, p.214-216)
- **Demographic segmentation** – this type of segmentation is based on the demographic data about a customer segment, dividing customers into groups for example by their age, gender, job, education, or family characteristics. It works with the idea, that people similar in their demographic profiles will exhibit similar purchasing behaviors. (4, p. 216-219)
- **Psychographic segmentation** – uses psychology together with demographic data to include personality into the mix of a market segment. Psychological and personality traits of a customers, together with their values and lifestyle characteristics define segments based on psychographic. Thanks to this connection, psychographic data offer deeper insight into the motivation of a specific consumer behavior to communicate with customers on a more personal level. (4, p. 225-227)

These variables offer view on the customers from different perspectives and for that reason, marketers often combine them to achieve better understanding of their customers and finding the right customer segments to offer their products to.

Behavioral segmentation

In this approach, Kottler at. al. consider the market segmentation based on the consumers' "knowledge of, attitude toward, use of, or response to a product." (4, p.227)

Table 2 - Basic groups of behavioral segmentation
(Source: Author's own work based on (4, p.227-229))

Behavioral consideration	Description
Needs and benefits	This group focuses on segmenting customers by evaluating their specific needs and benefits expected from a particular product an evaluates reasons for their choice based on functional, emotional, social, and conditional benefits.
Decision roles	Divides customers based on their influence on the purchasing decision. Kottler et.al. define 5 roles: • **Initiators** suggesting the idea of buying a particular product first. • **Influencers** evaluating different products and influencing the buying decision. • **Deciders** making the buying decision. • **Buyers** paying for the products. • **Users** benefiting from and using the product.
User and usage	Evaluates and segments customers based on the usage of a product and their status. Factors influencing these group include for example frequency of use, if they are a first-time user or a regular customer of the company or their loyalty towards a particular business.

1.2. Value proposition

Value proposition "Describes the benefits customers can expect from your products and services." (5, p. 6) It serves a purpose of communicating clearly, what can a business offer to their customers, what are the benefits of the solution provided, how it can solve customer pains and problems and how is a company different from their competitors. (10) All of this in a form of a short statement, communicated to the customer directly from a company's webpage and marketing materials. Marketing and brand strategy of a company play a role in the value proposition, as it has to be "on-brand", with the tone of voice appealing to the specific customer segment. (11)

Customers and customer segments are in the front and center of the value proposition as it is a direct communication designed to convince them to buy a company's product or service in spite of their competition. Therefore, a company should know their prospects, together with their main problems, which should be clearly reflected in the product/service as an ideal solution for them. (5, p. 9)

Ultimately, every company should try to create a unique value proposition for their product to differentiate themselves and answer the customer question of why they should care and choose the company's solution instead of some other company.

As customers often compare multiple solutions before deciding on buying, resulting in fierce competition. A value proposition differs from company mission statement or tagline, as it is specific to one product or service in comparison to the overall business goal encompassed in the mission statement, or the brand idea in a tagline. (12)

1.2.1. Value proposition canvas

Osterwalder et. al. came with a value proposition canvas framework in 2014 to simplify value proposition creation by focusing on 2 parts: The customer profile to enhance the understanding of a company customer segment and value map, reflecting the value creation for the specific profile. (5, p. 3)

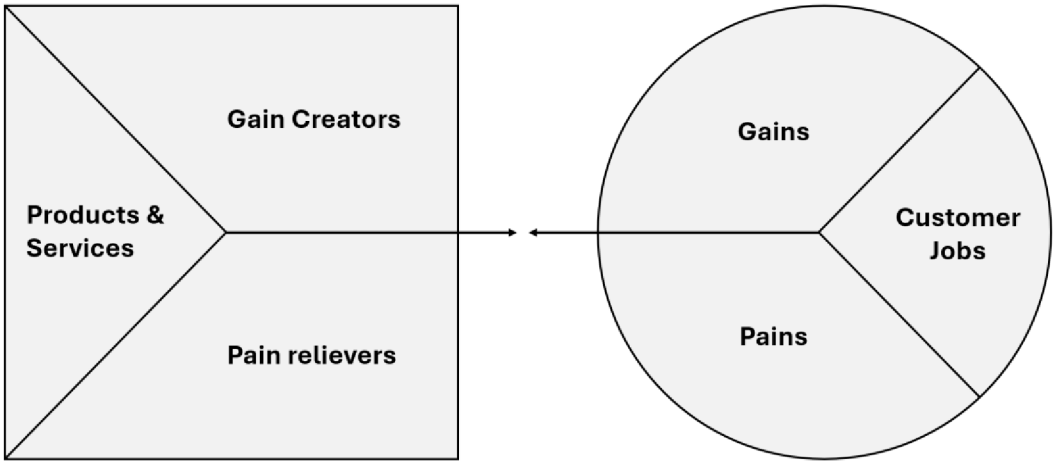


Figure 2 - Value proposition canvas
(Source: Author's own work based on (5))

Customer Profile

The purpose of a customer profile is to break down a specific customer segment into a structure to better understand and tailor the value proposition to their exact needs. It consists of customer jobs, pains, and gains. (5, p. 9)

Customer jobs represent the tasks, which are wanted to be completed by the customer segment, either at work or in their personal lives. Based on their type of work, these would differ, but it is important to look at the jobs from the perspective of a customer.

Looking at context behind a certain task is also beneficial, as specific situations could affect the performed task. Lastly, not all tasks are on the same level and priority, therefore we need to take into account their importance. (5, p. 13)

In the process of the completion of a job, the customer pains get in a way of completing the job, resulting in an annoyance or frustration. We identify 3 types of these pains:(5, p. 14)

1. **Undesired outcomes, problems, and characteristics** – resulting from negative effects, either functional, emotional or ancillary, of completing a particular task. This could be for example that the result did not yield expected results, or the customer felt a negative emotion associated with the task process.
2. **Obstacles** – pains preventing the customer from starting or successfully completing a task (e.g., "I do not have the necessary skills" or "I lack the resources for the completion of a task up to my standards")
3. **Risks** – pose as a set of potential outcomes, which the customer does not want.

As with customer jobs, important part is also determining their relevance to the customer, in this case "pain severity" (5, p.14) which sets the magnitude of a particular pain, ultimately identifying what are the things that to customers want to avoid the most.

The positive outcomes wanted by the customer segment are reflected in customer gains. Here, Osterwalder et. al. differentiates between: (5, p. 16)

1. **Required gains** – gains that are the most basic expectation of a result after using the solution. Without them, the solution simply would not work.
2. **Expected gains** – these gains represent customer assumptions, which are expected to be gained by the usage of the solution but are not crucial in order to complete the job the solution was originally designed to do.
3. **Desired gains** – nice to have gains that are offered above and beyond the fundamental solution, usually not crucial for the decision-making process, but they are gladly welcomed if possible.
4. **Unexpected gains** – gains that the customer originally did not know they wanted. Usually, they arise after a unique and revolutionary solution is introduced in the market, enhancing the customer experience further.

As with pains, Osterwalder et. al. suggests to not only identify the specific gains, but also assign relevance to them to determine if the gain is essential or not.

Value map

Value map offers the second part of the puzzle, focusing on a business solution related to the customer profile. It consists of products and services, pain relievers and gain creators. (5, p. 29-33)

Products and services offer a list of a company's offering. The value proposition is created on top of these products and services. Based on the type of the company we differentiate multiple product categories, fundamentally breaking them down to physical products, intangible services, digital products for download or online use or financial services, such as an insurance or investment of funds. Not all the products will have the same relevance and it is important to take this fact into account when creating the value map. The products and services only create value, if they connect directly to the jobs, pains, and gains of a customer. (5, p. 29)

In contrast to previously identified customer pains, the pain relievers aim to mitigate the effects of a negative pain for the customer, or completely eliminate it. It represents a set of functions of product/service and partial solutions designed to address customer pains. Value proposition should focus on the pains with the most relevance, as no solution can offer to eliminate every single pain the customer is facing. (5, p. 31)

Similarly, the gain creators address the identified gains of the customer, explaining how they produce value and benefits, that the customer expects to gain by using the products and services of the company. These could be gained on the functional, social, emotional, or financial level. As with pain relievers, it is important to address the most relevant gains, as they are the deciding factor of a compelling value proposition. (5, p. 33)

1.2.2. The fit

When the customer profile and value map match and complement each other, that's when so-called fit emerges. It is the status, where pain relievers and gain creators of a product solution address the jobs, prevailing pains and expected gains of customers. It is generally hard to maintain and achieving the fit in itself is the primary activity of value proposition design. (5, p.42)

The fit happens in 3 distinct phases: (5, p.49)

1. **Problem-Solution fit** – After completion of the customer profile and designing a value map that addresses customer jobs, pains, and gains at least to some degree (taking into account the relevance of each segment). The fit is not yet tested in the real environment.
2. **Product-Market fit** – The fit moves to this phase after the products and services are gaining positive response from the customers on the market, meaning that the proposition is working and creating customer value.
3. **Business Model fit** – Last phase is about integrating the value proposition into a sustainable and scalable business model, ensuring continuous and prospering business operation.

1.3. Business model

„A business model describes the rationale of how an organization creates, delivers, and captures value“ (6, p.14)

The definition of the business model, in the most common sense, can be described as a company's plan for making a profit. It outlays a strategy for driving sales for business products or services. For a particular business, it consists of the offering itself, as well as its way to reach their customers and target market, taking into account costs related to the business operation, including making the sale. (13)

Business model is not something rigid, but rather a dynamic concept that needs to adapt based on the situation of the business. It is a flexible and evolving concept that depends on the assumptions, activities, and value propositions of the business, as well as the external environment and competition.(14) Operations of a business will usually fall into some of these types of business models, or are an adaptation based on the specific needs of a business:

Table 3 - Common types of Business Models
(Source: Author's own work based on: *(13)(14)*)

Type	How does it work
Affiliate	affiliate marketing involves promoting another company's products or services. Affiliates earn commissions for driving traffic or sales through their referrals.
Brokerage	Brokerage businesses connect buyers and sellers (e.g., real estate agents, stockbrokers) and earn fees or commissions for successful transactions.
Bundling	Businesses bundle multiple products or services together, often at a discounted price. This strategy encourages customer loyalty and increases overall revenue.
Fee-for-service	In this model, businesses charge customers based on the services provided. Examples include consulting firms, legal services, and repair technicians who bill clients by the hour or for specific tasks.
Franchise	Franchises replicate an existing business model and brand in different locations. Franchisees pay fees or royalties to the original franchisor
Freemium	Freemium models provide a basic version of a product or service for free, enticing users to upgrade to a premium version with additional features. Common in software, apps, and online platforms. Freemium models are commonly associated with ads revenue to support the profitability of the business.
Manufacturer	Sourcing raw materials to produce goods using business own capacity, such as labor, equipment, and machinery. Possible channels include selling to distributors, retailers or directly to customers.
Marketplace	Marketplaces connect buyers and sellers on a platform. The business earns a fee or commission for facilitating transactions. Examples include e-commerce platforms and freelance marketplaces.
Pay-As-You-Go	Businesses charge customers based on usage of the service/product. This flexible model is common in utilities, cloud services, and pay-per-use software.
Razor Blade	Company sells a durable product (razor handle, printer) at a low cost and profit from selling high-margin consumable components (razor blades, ink cartridges).
Retailer	Sell finished products from manufacturers or distributors to customers
Reverse Razor Blade	Represents the opposite of Razor Blade business model, where the company firstly sells a high-margin product accompanied by low-margin or free services/products during the lifespan of the product.
Subscription	Subscription-based businesses offer products or services that require ongoing payment. Customers pay regularly (usually monthly or annually) to access content, software, or exclusive features.

1.3.1. Business Model Canvas

Osterwalder et al.(6) presented the need for a unified concept of the business model to start discussions about particular business on the same page with everyone. That resulted in the establishment of the Business Model Canvas framework with the goal of visually capturing the essential components of a particular business model. It consists of nine building blocks, each representing a critical aspect of business operation.

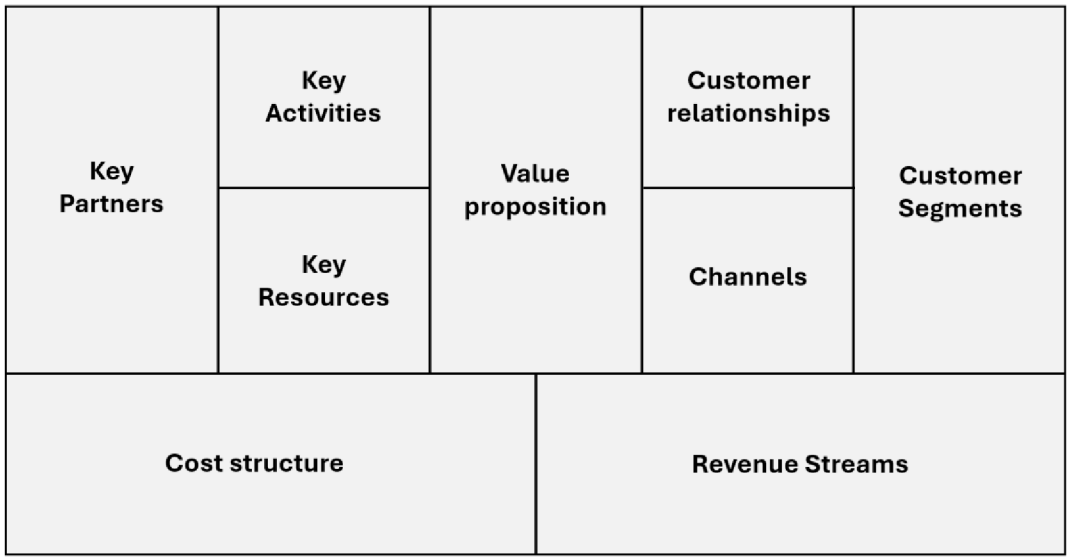


Figure 3 - Business model canvas
(Source: Author's own work based on (6))

Customer Segments:

Osterwalder et al. view customers as the center of any business model, crucial for sustaining a business operation. For the purpose of satisfying their customers, they are grouped into categories or segments based on their characteristics, such as behavior, needs etc.. Based on this segmentation, the company needs to choose one or more target groups to actively offer their products or services to and build their business model around the needs of customers in these segments. We differentiate between multiple types of Customer Segments, based on their size, differences in needs and problems or their characteristics. (6, p. 20-21)

Value Propositions:

Proposition of a business aims to solve problems or satisfy needs of customers. Simply put, they represent a "bundle of products and services that create value for a specific Customer Segment." (6, p. 22) This value is created from a mix of elements, which are either quantitative or qualitative. (6, p.23)

A company selling products can offer a combination of these aspects in their value proposition, such as the price point of the product combined with a unique design and convenience for the users, ultimately creating a compelling value for a specific customer segment, resulting in more sales.

Channels:

How to deliver the value proposition to the targeted customer segments is a question posed by the "Channels" building block. Channels represent touch points with their customers, helping the company communicate and interact with customers throughout their whole customer journey. From generating awareness, through delivering their value proposition to providing customer support. (6, p.27)

Customer Relationships:

The relationship between the company and a specific customer segment is defined by its type, ranging from personal to fully automated. This relationship affects the whole customer journey and its mainly motivated by one of three factors:(6, p.28)

1. Acquisition of new customers
2. Retention of existing customers
3. Upselling products/services in order to boost sales

The relationship with a specific customer can change over time, as the customer is moving through the pipeline from initial acquisition to retention and upselling or cross-selling other products.

Revenue Streams:

Profits and revenues are generated directly from the exchange in the form of a product/service with representatives of specific customer segments.

It correlates with the provided value, for which the customers are willing to pay, resulting in creation of one or multiple revenue streams. A revenue stream can be either transactional – created from a singular sale of an asset, or license for example, or recurring – as a result of periodical payments for the usage or ownership of a product or support relevant to sold product/service. (6, p.31)

Key Resources:

To create a compelling value proposition for customer segments and as a result, generate revenues, a company must have access to its key resources, which allow the business operation and expansion. The "mix" of resources varies from company to company, mainly because of the specifics of the industry and market segment of a particular business. Osterwalder et al. (6, p.34) differentiates between 4 types of resources: physical – such as equipment or manufacturing facilities, financial – cash for investment, intellectual – know-how, patents etc. and human – the people and their skills working towards the business success.

Key Activities:

Similarly to key resources, activities are also part of the value proposition creation process. They represent the main set of activities required to ensure operation of a company. These actions are then used to develop the business and its value proposition, uphold customer relationships, and ultimately create financial profit. (6, p.36)

Based on the business model of a particular company, key activities and their priority for business operation would also differ.

Key Partnerships:

In order to develop a business further, strategic partnerships are becoming more important for many businesses, not only in the field of forming alliances with other businesses to optimize and enhance current business model or develop a new business through a merger, but also in the non-competitive space – between suppliers and buyers to maintain the competitive edge and ensure a reliable supply chain for a company production. (6, p. 38)

Cost Structure:

"The Cost Structure describes all costs incurred to operate a business model" (6, p.40)

To operate a business at the end of the day comes with incurred costs, related to the specific business model, its needed resources, activities, and partnerships. After taking into account fixed and variable costs, ultimately identifying the cost requirements of a particular business model, two key cost structures arise:

1. Cost-driven – where the intention of a business is to reduce their costs to the minimum and keep their value proposition focused on the low-price of the product or service. This model is typical for example for low-budget airways. (6, p.41)
2. Value-driven – here the focus is to provide the customer segment with a strong value of a product/service, prioritizing high personalization and premium level of service. (6, p.41)

1.4. Digital Transformation

Digital technology, such as smartphones, computers, internet are fundamentally transforming life and day-to-day activities of people in recent decades. With the easy access to information at the tip of our fingers, at all times, technology is re-imagining the human experience and reshaping their habits for life, work, play and connection with others. (15) This means not only change in human behavior, but also in the competitive environment of businesses. It is critical for a company to continuously adapt their operation in order to survive in a constantly evolving technology-driven environment. (16)

The digital transformation can be described using seven dimensions: Change in processes, creation of new organizations, change in relationships, change in user experience, change in markets, change in the number of customers and disruptive impact. In order to be transformational, technology must impact at least 3 of these dimensions. (17)

These changes are continuous and pose new challenges for managers, but especially for workers. Traditional businesses undergoing digital transformation together with companies and start-ups established in the era of digitization, technology and AI and demand skills, which are on-par with the progress.

In order to be successful on the market, an individual must emphasize so-called digital skills, which can be defined as skills to "use digital devices, communication applications, and networks to access and manage information,"(18) These include a wide range of skills, from entry-level ones, like computer literacy, word processing and web-based research, all the way to programming, digital marketing or design. We are expecting to continue in this trend for the years to come. A recent study predicts a 12 percent increase in the number of jobs requiring these digital skills by 2024. (19) It is therefore safe to say, that society needs to focus its efforts on preparing workforce for an environment driven by digital transformation. All of the above starts in our educational system and schools, which need to transform accordingly and prepare the students for their future jobs requiring digital literacy.

1.5. Digital Products

"A digital product is any product that is defined digitally in terms of content or software, and most importantly can be transferred digitally." (20, p. 67)

Digital products offer the customer access to data, information, and knowledge via the means of digital technology. These data are captured, stored, and shared digitally, which has a number of benefits for the business, as well as the customer. Due to their digital nature, these products are not suffering from deterioration of material, can be easily tailored to the specific customer by the usage of data about our customers and they can be reproduced over and over with gradually lower variable cost in comparison to physical products. As they are often hosted online, they can be accessed virtually anywhere with the access to internet connection or downloaded for offline use. Online environment also allowed new means of products to arise, such as live webinars trough conferencing platforms like Microsoft Teams or Zoom, allowing users to connect in near real-time from all-over the world to consume information. (20, p. 68-73)

1.5.1. Educational Digital Products

One subcategory of digital products are digital products for educational purposes. They serve as a resource for getting knowledge about specific topic or area digitally, with the use of modern technology and internet. (21)

There are multiple types of educational digital products, but they can be categorized into these 5:

Digital content

Digital content refers to a group of all publishable media types hosted digitally. It encompasses forms of content from videos, images, and audio to readable files. Digital content can be used to educate, entertain, persuade, and convert the target audience by communicating with them through digital channels. (22) Specific types of digital content are particularly useful for educational purposes, because they help create more interactive learning opportunities, tailored to the learning preferences of individuals. Video content adds another dimension to text and pictures in learning materials, downloadable PDF materials and slides allows for learning at an individual's pace and quizzes offer a way to track progress and information retention. (23)

eBooks

eBooks are a format of non-editable text material for the use on digital devices, such as computers, smartphones, or electronic readers. It offers a way of distributing knowledge without the need for physical printing. As the eBook is distributed online and the format is digital, it offers accessibility features such as responsive layout adapting to the device it is displayed on, with the ability to for example change font type and size. Furthermore, users can highlight and comment the content on their device through e-reader applications, with the ability to freely search for the specific words and phrases throughout the eBook. (24)

Online webinars

Webinars are a form of online conference with the ability to share audio, video, and screen content in real time to the audience anywhere in the world with the access to the internet. The main difference is that the webinar typically has one or multiple speakers sharing their knowledge, with the attendants and customers in the position of receivers of information. Due to this fact, the webinar can be accessed by large groups of people, as it is easier to manage than a classical video conference requiring active participation of all attendees. (25)

The audience can interact with the speaker via chat, microphone or interactive surveys and reactions. Popular webinar platforms offer management tools to effectively control the course of the webinar, managing privileges of users, such as muting participants or blocking inappropriate participants. The host also can easily record the webinar for future use. (25)(26)

Online courses

Virtual learning materials on a specific topic can be organized into online courses, which offer a way to learn new skills online. They consist of previously mentioned digital product types, often combining video content with downloadable worksheets, templates etc. and an assessment in the form of quiz or project to work on. Thanks to learning management system (LMS) platforms, which offer a way to create and manage online courses, these can be sold to customers as digital learning products. Nowadays, the platforms offer various types of courses, from live, where the core knowledge is learned at regular intervals via a webinar, or self-paced with materials available on-demand. Platforms also offer flexibility to the creator in mixing and matching different approaches and digital content types to create a unique online learning experience. (27)(28)

1.6. Critical Literature Review

To successfully accomplish the goal of this thesis, theoretical background in areas of Customer segmentation, perceived value by customer and decision-making process was necessary. The combination of theoretical knowledge of value and customer segmentation principles by Kotler et.al.(4)(9) together with Value Proposition Canvas model by Osterwalder et.al. (5) will be useful in this thesis to tie the theoretical knowledge into practical assessment of both the current value proposition of Company XYZ, but also the value proposition of proposed digital product portfolio with regards to the customer segments of primary and secondary schools.

The planned shift towards digital product portfolio is connected with change in business model and its parts. To understand and depict this change, the ideas on business model in general, with a practical framework of Business Model Canvas by Osterwalder et.al. (6) should prove useful for this thesis to compare and point out areas, which need to be changed in order to successfully implement the new business operation.

Primary and secondary education is a market segment currently influenced by digitalization and digital transformation of educational processes, which is also a business focus of the Company XYZ.(29) Knowledge from number of theoretical sources complemented by a theoretical study conducted by European parliament (30) was used to outlay the basic terms. This is necessary to understand the digital transformation and helps define challenges and opportunities in the educational environment.

Lastly, the definition of different educational digital products was theoretically anchored based on work by Basu et.al. (20) in combination with other digital sources to provide an overview, which will be used in the later parts of the thesis when designing a digital product portfolio.

Analytical and research methods depicted in the methodology of this thesis in combination with tools and ideas from the theoretical part are believed by the author to be useful to define a value proposition for the development of business operation.

2. Analytical part of the thesis

2.1. Company introduction

Company XYZ is a 1-person small business focusing on professional education of teachers in the domain of Microsoft 365 technology for education. The founder has multiple years of experience both from school environment as a teacher, and corporate environment, working with Microsoft technology daily. As a result of this unique set of skills, the founder decided to create a company fusing these two domains with the goal of providing teachers with useful information on how to implement and use modern technology to teach the next generation of students. It was founded 3 years ago as a side-project. Today, it is not the main source of income for the founder. It is however a result of their interest to help Slovak education system with their expertise.

Main customers currently are primary and secondary schools in Slovakia. The service is provided by in-person seminars and workshops. The topics of the seminars ranges from single Microsoft 365 applications all the way to the whole ecosystem of Microsoft products. The seminar "packages" are not set, as they are tailored to the specific school based on their needs and the skill level of attendees. For this reason, Company XYZ works closely with each school before the seminar takes place.

With the global shift of digital education products, the Company XYZ is looking to transform their current offering into digital product portfolio, with the goal of increasing efficiency and creating a source of passive income for the founder. The Company is already undertaking steps towards this transition, the founder is building an online presence in the form of free articles, posts on social media and an e-shop platform is being built.

2.1.1. Current business model of Company XYZ

Based on the interview with the founder, the following business model in the current state was identified.

Customer segments

Main customers of Company XYZ are primary and secondary schools. As directors are the key decision-maker regarding actualization and innovation education in school, they are the main contact point for the current offering of the business. The company is also targeting school digital coordinators who also serve as a contact point for the specific school, as they can recommend services of the company to the management of the school.

Value proposition

Main value proposition of the business is the mean to fulfill the prescribed plan of professional development of teachers and fulfill part of actualization education of a particular school in the area of Microsoft 365 applications. This is supported by secondary value propositions, differentiating the Company XYZ from competition, such as practical showcase of technology use resulting from school/corporate practice of the founder and the ability to adapt the seminar to the needs of the teachers and schools.

Channels

The channels used to reach new customers are both offline and online. As the founder has multiple years of presence in the education social groups, a significant channel is word of mouth, as they established themselves as a known figure regarding the topic of school digital transformation.

For more than 10 years, the founder is actively presenting and doing workshops at industry-specific conferences, resulting in networking with potential customers and also building their personal brand. It can be said that a personal brand of the founder serves as form of marketing for the Company XYZ and provides a stable stream of customers.

Online channels are two-fold. Firstly, via Company XYZ website, where the potential customers can find information about the company, offered services with a call-to-action to contact the founder via email. Part of the website is also a blog, which targets teachers on primary and secondary schools.

Second online channel is social media presence on Facebook and LinkedIn. Here is the founder actively building their personal brand with posts, tips and tricks and also maintaining Facebook groups for innovative educators, providing a strong communication channel for Company XYZ activities.

After contact with Company XYZ by a new customer, a direct communication channel is established for the whole process, either via email, phone or combination of the methods.

Customer relationships

The maintaining of the customer relationship relationships is done through personal communication with them on educational conferences and also online via blog articles, social media posts and also on webinars and discussions. The company is using friendly tone in all of their communications, as they are part of the community and have developed several close relationships with other teachers and stakeholders.

Revenue streams

As of today, a 100% of incomes come from in-person seminars and workshops for schools. Due to the high variability in the content of the seminar, the price for the service varies from customer to customer based on the scope of the seminar.

Revenues from online product portfolio will be possible in the near future, as the company is investing into building an e-commerce platform to distribute digital products. They are however not used today.

Key resources

Key resources for the business operation result from the main topic of the seminars – Microsoft 365 apps and their features. As we are talking about technology, both software and hardware is necessary.

From software perspective, an active Microsoft 365 subscription is crucial. For the purpose of the seminars, the company has created its own demo environment with various educational scenario, which are curated by the founder. Other software, such as graphical software is used for marketing and creation of materials.

For the business operation, a quality hardware is necessary, with the emphasis on innovation, as this also serves as an example for the customers on what is possible with the cutting-edge technology. Currently, the company is using a 2-in-1 convertible Windows computer with a detachable tablet part and support for an active stylus. Important are also computer accessories, such as webcam, microphone, lightning, and multiple monitors for hosting occasional webinars and for communication with customers. For transportation to the place of the seminar, the founder is using their car.

Key activities

To keep its competitive edge, the Company XYZ needs to keep up with the latest trends in the space of education technology from various online and offline sources, such as blogs, videos, webinars, or education conferences. On of them is also the Microsoft product portfolio. As it is crucial for the business operation, and it is constantly evolving with new features added specifically for education. This needs to be not only monitored actively, but also tried and tested in the local environment of Slovakia, as many of the features will not be available on the first day of the announcement, are not localized in Slovak language or are otherwise limited. These trends and new features are then used for creation of new blog content, posts or webinars.

The company is also mapping the needs of teachers and schools resulting from personal conversations on educational conferences, discussions online and from the organized seminars and workshops.

All of the above activities help create new education scenarios in the demo environment of the Company XYZ, which is then used as part of the unique value proposition of the business.

Key partnerships

The founder is leveraging their personal network of other people from education segment, gained by the experience from corporate and educational environment. Another important part are interactions with innovative teachers, which provide insightful information used for the business activities. The Company XYZ is also keeping a closer partnership with Microsoft as part of EDU insider community, getting the latest information on Microsoft product updates among the first.

Cost Structure

Due to the nature of the service provided, which is very dependent on the expertise of the founder and the fact that they are the sole employee in the Company XYZ, the main cost identified is the time of the founder. Since the seminars are held in the school premises, there are variable transportation costs in every seminar made.

As the topic of the seminars is using modern technology, another mentionable cost are technological products, such as a computer, which needs to be upgraded periodically and also other computer accessories for presenting. Other physical supplies (e.g., markers, papers etc.) are not needed for the course of the seminar, as they are present in the schools. From the software perspective, the Company XYZ has a fixed annual cost for digital product subscriptions used for the business operations, namely Microsoft 365 Business subscription and a graphical software suite.

Some financial resources also go monthly towards web and blog hosting, costs for the domain name and e-shop platform.

2.1.2. Summary of business model canvas

Table 4 - Current Business Model Canvas of Company XYZ
(Source: Author's own work based on (29))

<table>
<tr>
<td rowspan="2"><u>Key partners</u>
Microsoft
Network of people from education segment
Innovative teachers</td>
<td><u>Key activities</u>
Monitoring the latest trends in education technology
Mapping the needs of teachers and schools
Creating education scenarios
Localization of features and scenarios (if they are applicable)</td>
<td rowspan="2"><u>Value propositions</u>
Practical showcase of Microsoft 365 technology in education
Corporate knowledge connected with educational background
Showcase of trends and skills necessary for students
Fulfillment of the prescribed plan of professional development of teachers
Adaptability to exact schools and teachers needs</td>
<td><u>Customer relationships</u>
Conferences and events
Blog articles
Social media
Webinars and discussions online</td>
<td rowspan="2"><u>Customer segments</u>
Directors of primary and secondary schools in Slovakia
School digital coordinators</td>
</tr>
<tr>
<td><u>Key resources</u>
Computer
Microsoft 365 suite
Graphical software
Car for transportation</td>
<td><u>Channels</u>
Social media
Word of mouth
Meetings at events</td>
</tr>
<tr>
<td colspan="3"><u>Cost Structure</u>
Time
Transportation cost
Web and blog hosting
Software subscriptions (Microsoft 365, Adobe Suite etc.)
Computer hardware (computer and accessories)</td>
<td colspan="2"><u>Revenue Streams</u>
In-person workshops or seminars for schools</td>
</tr>
</table>

2.1.3. Current value proposition canvas of the business

The value proposition of the business in its current form is influenced by the main customer segment of school directors. If we look at the way the schools operate, we can assume a following simplified business model canvas from the perspective of the director and school management:

Table 5 - Simplified BMC of primary and secondary schools
(Source: Author's own work based on (29)(31)(32)(33)(34))

<table>
<tr>
<td rowspan="2"><u>Key partners</u>
• Municipality
• Government
• Providers of professional education of teachers</td>
<td><u>Key activities</u>
• Teaching activities
• Curriculum development
• Management of facilities
• Professional development of staff</td>
<td rowspan="2"><u>Value propositions</u>
• Provide quality education according to national curriculum
• Development of students (academic, personal, social, emotional)
• Preparation of students for future education and career</td>
<td><u>Customer relationships</u>
• Parent-teacher communication channels
• Student counseling
• Feedback policy</td>
<td rowspan="2"><u>Customer segments</u>
• Primary/Secondary school students
• Parents or guardians of pre-school/primary school children</td>
</tr>
<tr>
<td><u>Key resources</u>
• Qualified staff
• School facilities
• Technological infrastructure
• Information systems
• Educational materials</td>
<td><u>Channels</u>
• Word-of-mouth
• Communication channels with parents
• School website
• Social media</td>
</tr>
<tr>
<td colspan="3"><u>Cost Structure</u>
• Teacher and staff salaries
• Facility management
• Educational resources
• Technological infrastructure
• Promotional activities</td>
<td colspan="2"><u>Revenue Streams</u>
• Government grants
• Tuition fees (optional)
• Donations or sponsorships
• Other sources (international projects etc.)</td>
</tr>
</table>

Based on the business operation, we can see that the in-person seminars offered by Company XYZ influence 4 parts (highlighted by a green color) of the schools' business model canvas. Company XYZ acts as one of the partners of schools, primarily alleviating the director's pain to ensure quality professional development of staff - mainly teachers in necessary digital skills. The business operation also indirectly affects canvas segments of Key resources and Value propositions, in a way that shows the school how to effectively use their available technological infrastructure, information systems and how to use technology in addition to educational materials, like books and worksheets in the school.

Ultimately, this can also increase the value of the school in the perspective of its customers by increasing the quality of the education provided by the school's staff and also by having the ability to transfer crucial digital skills and tools, facilitating student preparation for their future careers.

Director personas

From the customer perspective, we can identify 3 personas of directors – differentiated by their acceptance of modern technology. Demographical data were excluded from the personas, as they are not the main determinants of directors' level of acceptance.

Table 6 - Director personas
(Source: Author's own work based on (29)(31))

	Traditionalist	**Moderate adopter**	**Innovative visionary**
Personality	Conservative, skeptical of change, values proven methods of teaching	Practical, balanced, cautious but open-minded	Technological enthusiast, future-oriented, adaptable
Acceptance of technology	Low	Moderate	High
Key perspective	Advocate for traditional learning methods	Accepts technology as a useful tool, but not a universal solution	Sees technology as essential for modern education
Attitude towards technology in schools	Minimal use in lessons Using technology primarily for administrative purposes Sees technology as more of a distraction	Supports technological professional development of teachers Encourages teachers to integrate technology where appropriate	Actively encourages staff and teachers to integrate technology into lesson plans Proactively seeks new tools and technologies Invests in infrastructure and finds ways to gain access to latest hardware
Challenges	Managing the pressure of the environment to adopt newest technology Risks falling behind the educational innovation Struggling with digital literacy to make processes effective Navigating potential friction with innovative teachers	Finding the right balance between technology and traditional methods Eliminating distraction from technology usage in education Ensuring adequate training of teachers	Financing the tech-adoption Ensuring adequate training of teachers Managing resistance from staff Supporting students in equal access to technology

The different director types will play a role in the BMC of the proposed digital product portfolio as well, because of their positive or negative influence on teachers in regard to tech-adoption. They can also provide support (motivational or financial) in teacher's self-development efforts. (32)(33)(34) The state also provides grants aimed at professional development of teachers with the latest one started in the second half of 2023 and financed from the European Union. Such grants will be actively searched for and used mainly by the innovative visionaries and moderate adopters among the directors, as opposed to traditionalists. (35)

Customer Profile

The founder can customize their seminars and work with all 3 types of directors, whether it's a traditionalist "forced" into adoption of modern technology by the staff or parents, all the way to the visionary actively seeking latest innovations to include in their school. Although the core topic of the seminar will stay the same across all 3 types – the approach of the director and staff to the provided education, and more importantly its introduction into practice will vary greatly. For this reason, the current customer profile consists mainly of innovative visionaries and moderate adopters.

Table 7 - Current customer profile of Company XYZ
(Source: Author's own work based on (29))

Customer Jobs	Pains	Gains
Ensuring integration of modern technology in education	Limited funding for professional development	Enhanced engagement of students via integration of modern technology
Providing access to professional development of teachers and staff	Balancing resources for professional education with other needs	Increased staff satisfaction
Financing the tech-adoption of school infrastructure	Scheduling professional development throughout the school year	Teachers' development and growth
Supporting students in equal access to technology	Managing resistance from staff in adoption of modern technology	Smooth implementation of new technologies in a school environment
Keeping up with emerging educational and technological trends	Finding relevant programs addressing needs of the schools as opposed to general seminars	Increased school's relevance and status
Leveling the digital skills of teachers	Providing ongoing support with the integration of modern technology after the training sessions	
Seeking opportunities for support from the state		

Value map

Key denominator will be the adoption of Microsoft 365 as the cloud solution of the schools since the seminars offered are focused solely on this ecosystem of products. With that in mind, we can define the current value map of the business.

Table 8 - Current value map of Company XYZ
(Source: Author's own work based on (29))

Products & Services	Pain Relievers	Gain Creators
In-person Microsoft 365 seminars	Pricing flexibility according to the needs of the school	Improving teacher's digital skills
In-person Microsoft 365 workshops	Flexible schedule and session lengths	Fostering staff growth and development
Customized training programs	Offering multiple levels of technical difficulty in seminars	Helping the integration of digital technology in schools
	Engaging content based on latest trends and functions of M365 applications	Providing training for teachers of all skill levels
	Ability to tailor the content based on customers' needs and pains	Deepening the knowledge of Microsoft 365 technology and applications
	Demonstrating benefits of new technology in education	
	Providing practical scenarios which can be easily implemented in practice	

2.2. Trends in digital transformation of education

Digital transformation influences a majority of industries nowadays and education is no exception. With emerging technologies and processes connected to digitalization of schools, new educational experiences and opportunities are enabled. This goes hand in hand with the availability of modern devices, network connectivity and overall technological infrastructure of schools. Thanks to the current state of infrastructure in schools, the market with educational innovations is constantly growing. However, this also raises the demand for necessary teacher's skills used to effectively include technology into day-to-day practice in schools. Teachers are a key stakeholder here as they are the connecting bridge between modern technology and its meaningful use in the educational process. (30, p. 3, 21)

In the study conducted by European Parliamentary Research Service in 2020, these technological trends were identified as ones with biggest potential to reshape education in the future (30, p. 21-23) To various degree, they are already being implemented today.

2.2.1. Bring Your Own Device

Bring Your Own Device (BYOD) is a trend enabling students to use their own devices in class for educational purposes. This is enabled by the use of cloud platform solutions and connected applications tied to the student's account and can serve as a good compensation if the infrastructure of a particular school is lacking necessary technological resources. It can also lead to increased motivation in viewing the devices, such as smartphones as not only a form of distraction, but also as something used to learn new skills. (30, p.21) This trend is dependent on a statutory regulation of a specific state. A recent example from Slovakian Ministry of Education, which plans to introduce a smartphone ban for students of primary education. (36)

2.2.2. Artificial intelligence

The definition of AI (short for Artificial intelligence) by the Oxford Dictionary is a *"software used to perform tasks or produce output previously thought to require human intelligence."*(37)

In connection to education, 3 applications are quoted by publications:

Learning Analytics – in the means of gathering data about the students and its analysis by AI to evaluate student's performance but also predict its development in the future. This can help and enable the **personalization of learning content** to each individual student – this adaptive form of learning, where students are assigned tasks based on their level of knowledge and preferred method of learning is said to improve their overall motivation, ultimately accelerating the learning process of an individual. Further empirical research is necessary to provide more insight into the topic of personalization of learning content. (30, p. 22)

With the use of visual image recognition offered by AI algorithms, China for example is applying methods to **monitor student's behavior** in classes to the extent of recognizing faces of an individual student and their attention. (30, p. 23)

For teachers nowadays, apart from above-mentioned applications, AI can help in **preparation for their lectures**. With the usage of generative AI – which is able to create content in the form of text, image or video, teachers can enhance their educational content in a fast and easy way. Whether it is a presentation, in-class activity, or a test. (38)

2.2.3. Virtual and augmented reality (VR & AR)

Usage of virtual and augmented reality is creating multiple possibilities to introduce digital experiences to schools. **Virtual reality** allows students to be transferred into any environment, place or situation while staying physically in the classroom. This enables endless possibilities in interactive learning, from learning human anatomy with the ability to fly through the body, all the way to simulators of machinery in industry-specific schools. (31) The interactive way of learning by doing, although in a virtual environment, can increase the retention of information by students. (30, p.23)

Augmented reality offers the ability to add digital content to the real world through the use of specialized headset or mobile devices, such as smartphones and tablets, making it an accessible way to introduce interactive content to lectures. The possibilities include enhanced physical learning materials by 3D models, which appear after pointing a smartphone camera at a specific object on the page for example. (31)

2.2.4. Connected classrooms

Connected classrooms are a vision for the future, which suggest physical infrastructure of schools in digital technology on another level in comparison to today. Such classrooms are equipped with everything necessary to address all emerging trends mentioned above. That means adequate digital equipment (computers, VR headsets, virtual conferencing solutions etc.), broadband network as well as preparedness of teachers in terms of their professional development. (30, p. 23)

As of today, we can understand connected classrooms as ones equipped with devices like projectors, computers, and internet connection to provide technology-enabled education. Crucial here are also cloud computing services with online storage, communication platforms for classroom management and connection with parents and students at home.

2.2.5. Summary of trends

For Company XYZ, all the emerging trends are relevant for the future development of value proposition in their digital product portfolio.

In their current business model, company focuses on the use of technology in connected classrooms, also addressing the trend of BYOD with practical scenarios of meaningful use of students' devices for learning purposes. As these trends are expected to continue in the future, the proposed value proposition should include both and build upon them. AI together with Virtual and augmented reality present other opportunities for development of product portfolio. With the increasing level of school's digitalization, the need for professional education of key stakeholders – mainly teachers, also rises. A potential threat could be presented in the form of varying school infrastructure between regions in Slovakia, as not all schools are equipped equal with technology. Although Covid-19 pandemic accelerated the digitalization of schools, this needs to be taken into account by Company XYZ to assure that the topics of their digital products can be broadly adopted in teacher's practice.

Table 9 - Summary of trends in digital transformation of education
(Source – Author's own work based on (30))

Trend	Impact
Emerging technological trends already addressed by Company XYZ	+
Potential for future development of product portfolio (AI, VR, AR)	+
School digital infrastructure accelerated by Covid-19 pandemic	+
Strong need for professional education of teachers	+
Differences between different schools in terms of their level in digital transformation and technological infrastructure	-

2.3. Microsoft 365 Education

"Microsoft 365 Education offers a suite of student-centered solutions that help create an equitable learning environment for all and help students succeed in the classroom and beyond."(39) This suite consists of Microsoft software products ranging from document editors through communication platform, all the way to cloud storage solutions and education specific apps and features.

These applications offer standard features of the business and personal applications, but they are also enhanced by education specific functionalities designed to accelerate learning, prepare students for their career, and are designed inclusively. (39)

In the subchapters below, there is an overview of specific products. Although it is not an exhaustive list, the applications in focus were chosen based on their potential application in education process. As all of the applications are part of one ecosystem, they are often interconnected with the ability to work with parts of each application across the whole suite of products, resulting in increased number of activities, that can be performed specifically in education.(40)

2.3.1. Microsoft products for education

Teams

Microsoft Teams is a communication platform for collaboration anywhere and anytime. It offers educators and students the ability to connect and collaborate in virtual teams. In Microsoft Teams, educators can create and save documents and learning materials, work with students in real-time, organize virtual lectures, add and collect assignments from students and more to support their physical lectures in school environment. (41)

The online platform provides students with education-specific tools to enhance their learning ability, with the emphasis on addressing diverse learning needs of every student. (40) You can read more about these tools in chapters “Accessibility Tools” and “Learning Accelerators”.

Overall, it is a robust app for managing and facilitating digital learning trusted by more than 270k+ educational organizations worldwide. (41)

Office applications

Office applications are a part of Microsoft 365 and include both online and offline applications (based on the subscription. These apps include Outlook for email, document editor Word, slide-deck creation software PowerPoint, spreadsheet program Excel and in A3 and A5 plans also graphical editor Publisher and database program Access. (42)

The added benefit of cloud connection is real-time collaboration, allowing teachers or students to create documents, presentations, or spreadsheets simultaneously, facilitating collaboration and group-work.(40)

Forms

Microsoft Forms allows the users to create surveys and quizzes, which can be then distributed using a weblink and answered via computer or a mobile device. Educators can assess students, collect feedback, and evaluate results of the questionnaires and quizzes either in web-browser or by exporting the results to Microsoft Excel. (43)

Forms offers various types of questions from choice to text-based with the option to add subtitles providing more context, images etc. Feedback related questions are also included with support for rating, Likert scales or Net Promoter scores. For uploading of materials from students, educators can use file upload type of question. (44)

Whiteboard

Microsoft Whiteboard is a solution for a digital whiteboard space, which can be used to create notes and sketches during online lectures or group work of students. It is strongly connected with Microsoft Teams in a way that allows to share the whiteboard to all participants of a Teams meeting to either watch the lecturer explain the topic or collaborate with them in real-time. For this purpose, it offers a set of drawing tools, sticky notes and pre-made templates for various group-learning situations (brainstorming sessions, group reflections etc.) (45)

Sway

Sway is a simple tool to create interactive digital designs, reports, or presentations, which can include media such as images or videos. Thanks to included design engine using blocks, users can create compelling designs with little to no skills. (46) Created presentation can be then easily shared online without the need for signing up or downloading the presentation, making it a great option for educators. (47)

OneDrive

Microsoft OneDrive is a cloud solution offering educators and students up to 1TB of space for their documents and files. It can be used for easy storage and sharing of various files, presentations, and lecturing materials, or as a backup of educators work and materials. Since the files are stored in cloud, it offers access from anywhere with the condition of internet access, but files selected by user can be downloaded to the mobile and desktop up for offline viewing, if necessary. (48)

OneNote

OneNote represents a digital notebook as a unified space for typed and handwritten notes. After crating a page, the user is presented with infinite amount of space on both axis, which makes it great for combining written notes with sketches, mind maps, files, and other content. It has full support for handwritten notes using active styluses on convertible laptops or mobile devices. The pages are divided into sections, which can represent different subjects, which are then grouped in notebooks, for example for one whole school year. (49)

An education specific feature is so-called "Class notebook" which is a part of Microsoft Teams environment. This notebook is divided into 3 parts. Firstly, it creates each student a separate space for his own notes. Second part of the notebook is for group work during lectures, called collaboration space, which can be accessed by everyone simultaneously. Lastly, the teacher only section allows educators to prepare notes or activities in advance, before easily distributing created notes and materials to all of their students using dedicated tools. (50)

Minecraft Education

Minecraft Education is a modified version of the most popular game in the world – Minecraft. (51) It builds on the premise of the original game, giving students infinite worlds, in which they can build their own creations. The game is however, infused with other functions, specific to develop their STEM skills across various subjects, such as mathematics, science, or programming. (52) Educators can create their own lesson plans using features and controls for classrooms or tap into premade educational worlds and lesson plans from educator community. (53)

Accessibility Tools

Included in the whole suite of Microsoft products for education are tools to made learning more accessible to all students. As 72% of classrooms include students with individual needs, (54) the room for digital tools designed to help students achieve the best results is evident.

Microsoft offers a variety of different functions addressing dyslexia and other learning differences, as well as language barrier with foreign students.

Immersive reader helps with reading comprehension and focus with an interface designed to reduce distractions. (55) With the help of artificial intelligence, speech-to-text, and live captioning tools, with the option to translate sentences in real-time to more than 100 languages make learning more accessible to everyone, regardless of their origin. (55)

Learning Accelerators

Similarly, learning accelerators are integrated into Microsoft products. They are designed to build and enhance fundamental skills, such as reading, critical thinking or emotional intelligence. (56) Reading Coach, for example, offers an environment to practice reading with guidance from AI tools on their reading pace, pronunciation, or syllabification. Moreover, educators have access to insights for individual students on their progress and hiccups, offering them useful information for additional support.

Search Coach focuses on critical thinking with regards to searching information on the internet and helps students to distinguish between facts and opinions. With Search Progress, teachers get the insight into information literacy skills of their students, while also getting tips on how to improve them. (56)

Microsoft Reflect addresses emotional wellbeing of students, helping them express their emotions through "Feelings Monster," providing educators with a way to monitor moods and feelings of their students. Having this kind of insight has a positive impact on the ability of providing actionable support where it is necessary. (56)

Copilot

Copilot is an artificial intelligence assistant by Microsoft, which is seamlessly integrated into Microsoft 365 applications in the form of an always present digital assistant, which can help draft up documents, create presentations, help with excel calculations and much more. "It combines the power of large language models (LLMs) with your data in the Microsoft Graph and the Microsoft 365 apps to turn your words into the most powerful productivity tool on the planet." (57) It is built on OpenAI's GPT-4 and can access the files and documents in user's Microsoft 365 account, which is backed by security measures, so the data are not used to train the language model and are therefore safely in the environment of the user. (57)

LLM like a Copilot can be especially useful in educational environment to create materials, pictures, quizzes etc. easier and quicker. (58) However, a critical thinking and fact-checking needs to take place, since these models are susceptible to "hallucinations" – generating of false or misleading information. Although the newer versions of LLMs can mitigate hallucinating by the usage of quality datasets, monitoring of outputs and other strategies, it cannot be completely eliminated. (59)

2.4. Professional development of teachers in Slovakia

There are currently 3 major educational software and cloud "ecosystems" implemented in Slovak primary and secondary schools. These are Microsoft 365, Google Classroom or Apple Classroom. The majority of schools, somewhere in the range of 75% as of 2023 had Microsoft 365 and the rest is split between Google, Apple or no cloud infrastructure at all. (Author's own experience).

2.4.1. Actualization and Innovation education

Assuming the fact that the teacher is not currently enrolled in a university program and does not plan to do so in the future, there are 2 main options to gain new a develop their professional skills. First one is education organized by the school. Based on the (60), the school director creates a **plan of professional development** after taking into consideration the school's focus, the organizer of the school and representatives of teachers. This plan is created for the period of 4 years and based on this plan, the **yearly plan of education** is set up. The plan can be changed and complemented throughout its validity based on the needs of the school. (61, p. 10)

Each teacher is entitled to create a **plan of personal professional development**, which can be focused on any area. This plan is then taken into account by the directors and implemented into school's general and yearly plans of professional development. (61, p. 20). The plan is then fulfilled by educational activities of either an **innovation education** or **actualization education** with the main difference being the yearly volume in hours and the fact, that the innovate education can be carried out by a legal entity with the subject of business in educational activities like seminars or workshops. The topics of the education vary based on the needs of the school and the portfolio is not focused only on digital technology and respective skills.

Additional motivation for the teachers is a up to a 12% increase in their salary by completing the innovation education courses offered by accredited providers. (62) Actualization education is organized by the schools, either in-house or in cooperation with another organization or business.(32) (33) (34)

2.4.2. Self-development from own initiative

The second option is the self-development of teachers from their own initiative. Based on the answers from the questionnaire, this option with regards to the topic of digital technology in education is actively practiced by the majority of respondents of a questionnaire included in the customer analysis (90%). The development is carried out mostly in combination with the education offered yearly by the schools and innovation education, but there was a group of respondents (ca. 24%), whose self-development activities were their sole education in this topic. The volume of this self-development is mostly ranging in the scope of couple hours per week to couple hours per month. It can be said, that the respondents are motivated to develop their digital skills beyond the scope of the education offered by their employer. This is also stressed by the fact, that the 72% of respondents are willing to invest their own financial resources into their professional development.

2.4.3. Role of the school management

From the conducted interviews, all of the representatives agreed, that digital transformation was greatly accelerated by Covid-19 pandemic, where schools needed to quickly adopt practices to ensure continual online education of students. Although the usage of technology gradually faded after the return of students into schools, with some teachers returning to “the pre-pandemic ways of teaching” (33), the level of adoption of technology stayed relatively high, positively impacting teachers and students in their digital skills. (34) Microsoft Teams is used in the schools of the respondents both as one of the communication platforms between teachers and students, sometimes even using the platform for organizing fully online classes, when it makes sense (32) or between the teachers and school management (33).

The technology is used in classes as well, utilizing the devices distributed via the Ministry of Education to support digital transformation, but also in the form of online activities and usage of Microsoft 365 to work on projects and group activities. The subjects with the biggest overlap with digital technology include STEM subjects and languages.

The level of integration is however dependent on the teacher of the subject and their motivation, initiative, and digital skills. (32)(33)(34)

For this reason, the professional education of teachers in digital skills is actively encouraged by the school management and is included in the yearly plan of professional development of each interviewed school. When presented with the question if they would be willing to financially support self-development activities from the teacher's initiative, all 3 respondents reacted positively to the idea. They also evaluated the motivation of their teachers as high in regards to finding ways to use technology in the education process. (32)(33)(34)

Based on the conducted interview, the main role of the school management in regards to digital transformation of schools and the use of digital technology can be summarized in these 3 responsibilities:

1. Provide necessary tools and infrastructure for it to happen in the first place
2. Provide teachers with adequate education and training of their digital skills
3. Encourage its use and integration into lessons

2.4.4. Role of the state

State naturally plays a role in the financing of the network of ca. 3600 primary and secondary schools in Slovakia, but there are other roles, especially when we examine them from the perspective of school's digital transformation.

Infrastructural role

In order for digital transformation to happen in the first place, schools need to have adequate digital infrastructure in terms of hardware, software and internet connectivity to create so called technology rich environment – a one where there is minimal friction in the integration of technology by teachers. This is the first step and state should foremost support schools in a gradual achievement of this status. (35)

There are initiatives from the state in its infrastructural role in all three categories. In 2023, schools across Slovakia received modern educational devices financed from European Union. There was also a project called "Digital student", which entitled a group of students in primary in secondary education to gain a financial support in buying a modern device for educational purposes. (31)(32)

In terms of the software and cloud infrastructure, there is plan of the Ministry of education to provide Microsoft 365 licenses for all primary and secondary schools in Slovakia. The realization of this project remains to be seen, but it is a topic which is seen by the directors of schools as well. (31)(32)(33) This would mean a unified cloud infrastructure, making integration and sharing of experiences across schools easier.

Lastly, the state wants to provide schools with a unified internet provider and this project is currently in the state of preliminary market consultation. (63)

Educational role

Professional education in digital skills of teachers is crucial in the success of school digital transformation. This responsibility is mostly transferred to the school management with state addressing additional motivation, for example in the establishment of a professional bonus (up to 12% towards wage of the teacher) after completing the innovation education from an accredited provider.

This system however has its downfalls, mostly in the quality control mechanism for the institutions and companies applying for the accreditation. This often leads to theoretical education without a direct effect on the digital transformation of the schools and the courses are of a varying quality. Of course there exists a number of providers of quality education – focused on the practical application of technology as opposed to just a passive transfer of information, but they are few and far between. This could be solved in the future with a web portal of accredited providers of innovation education, which would allow to differentiate between the quality of the courses based on reviews from other teachers and schools. The creation of this portal is planned, however without a specifically set date. (35)

Perhaps the most promising initiative is the concept of school digital coordinators, which is a role established in schools with the task to "coordinate informatization and education through digital technologies to support the transformation of education and schools for the 21st century and digital future." (64) These coordinators should also help provide education in digital competencies of teachers in cooperation with other organizations. The state is trying to work with the community of school digital coordinators and there is potential for growth, as currently only about 600 schools has a dedicated role of a school digital coordinator. (35)

Methodical role

In terms of the methodology of education, there is a structure called National center for digital transformation of education currently in the establishment phase at the Pavol Jozef Šafárik University in Košice. The role of this institution should be the support of schools and teachers in digital transformation of education and also to serve as the contact point of the state in the topic of emerging technological trends and digital transformation. This can be connected with the areas of research and development in the methodical space as well. (35)

There is also planned curriculum reform currently being piloted at a few of the schools in Slovakia, which provides an opportunity for the further integration of technology in schools.

2.4.5. Summary of the professional education in Slovakia

Although the Company XYZ targets school management in its current offering it needs to monitor the situation from other key stakeholders - like the state as it can provide the company with opportunities to gain an advantage on the market.

Table 10 - Summary of the professional education in Slovakia
(Source: Author's own work based on (32)(33)(34)(35)(31))

Opportunity	Impact
Ongoing initiatives of the state in the areas of digital transformation of education	+
Planned adoption of Microsoft 365 cloud infrastructure in schools	+
School digital coordinators as a customer segment	+
Becoming a provider of innovation education	+
Varying quality of educational providers	+
Potential financial support of teachers self-education initiative from the school management	+
Systematical changes and initiatives take time	-
Some teachers can find innovation and actualization education as sufficient	-
Not all subjects are affected equally by digital transformation	-

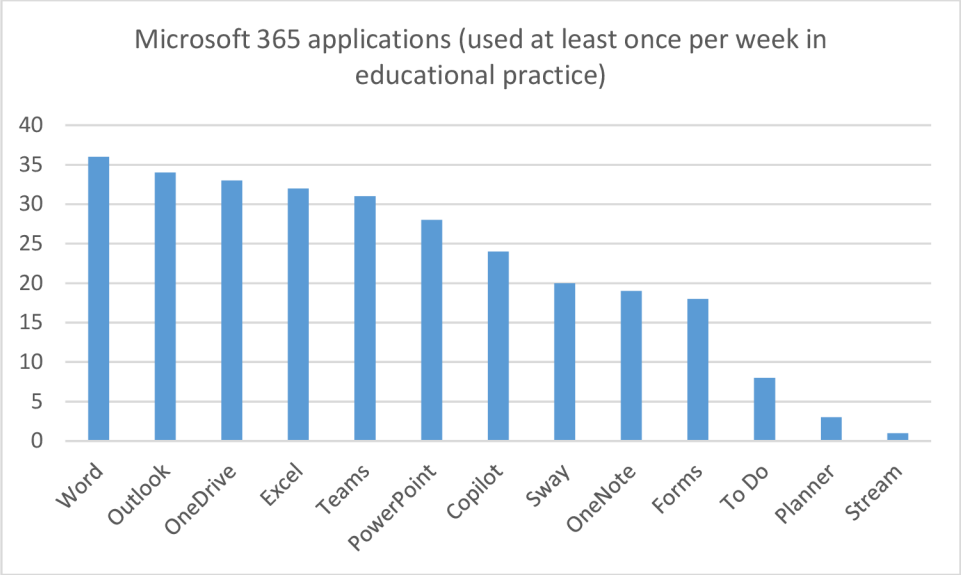
2.5. Customer analysis

This chapter dives deeper into current preferences for the professional development of teachers, as well as analyzing the new customer segment of teachers after the shift in the business model related to the move towards digital product portfolio. The role of the teachers changes from the participant of a seminar organized by their school to an active seeker of the digital products offered by the Company XYZ in the future.

As the Company XYZ focuses only on the Microsoft 365 technology, the customer segment needs to consist from teachers actively using or wanting to use this cloud solution in their pedagogical practice.

From the respondents in the distributed questionnaire, all of them used some form of digital technology in their classes at least once per month, with 76% using technology multiple times per week. As per the type of cloud solution, 72% was represented by Microsoft 365, Google Classroom in 10% of cases and no cloud solution in 18% of respondents.

2.5.1. Usage of Microsoft 365

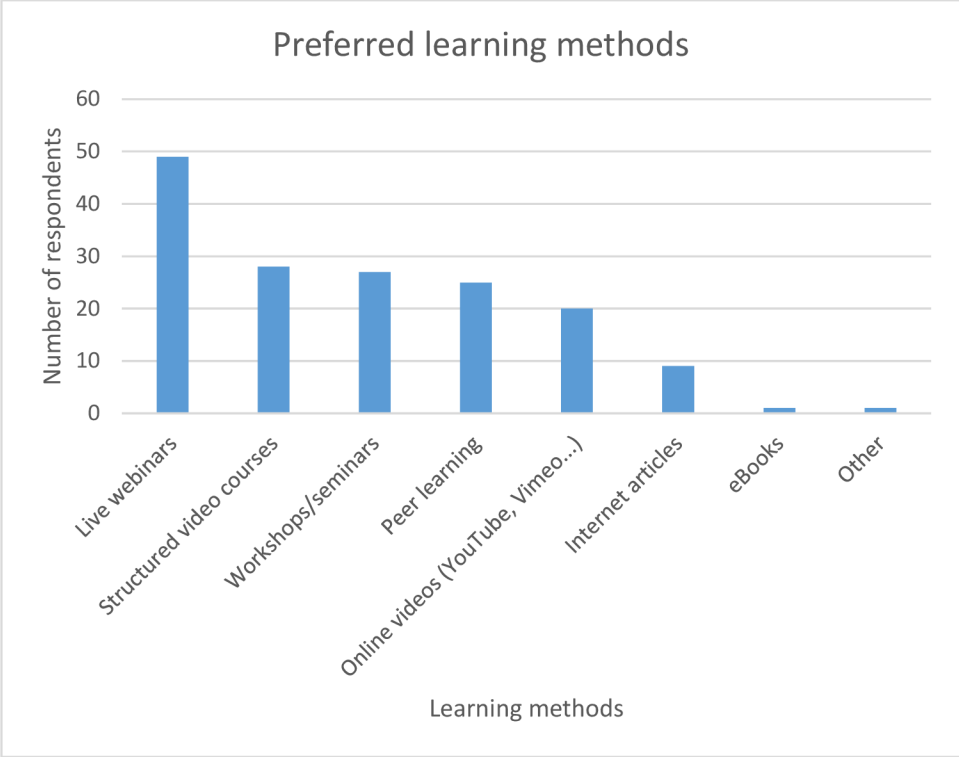


Graph 1 - Microsoft 365 apps actively in use by the respondents
(Source: Author's own work based on the answers from the questionnaire)

Among the top applications used by the respondents at least once per week in relation to the their pedagogical practice were standard office applications (Word, Excel, PowerPoint), as these are widely adopted in schools and accepted as industry standard.

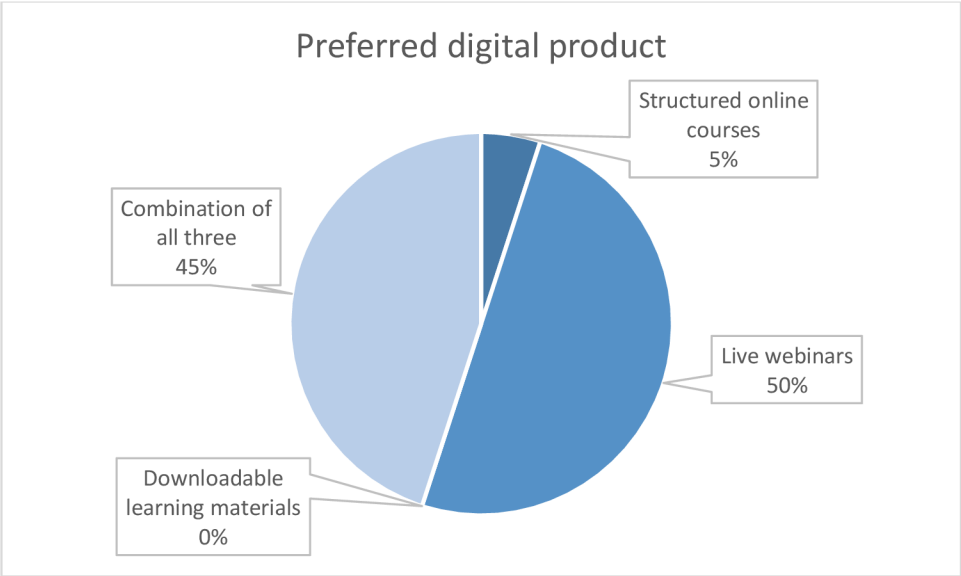
These were complemented by Outlook for email messaging and OneDrive as a cloud storage solution. From the other portfolio based on the answers it can be seen, that the adoption of Microsoft Teams, which started widely during the Covid-19 pandemic is still in use today for class management and hybrid learning. OneNote and Forms, which are useful in the educational process for digital notetaking and quizzes respectively were in actively in use (at least once per week) by almost half of the respondents. Microsoft Copilot also ranked among the top apps, confirming the emerging trend of artificial intelligence in education.

2.5.2. Learning preferences



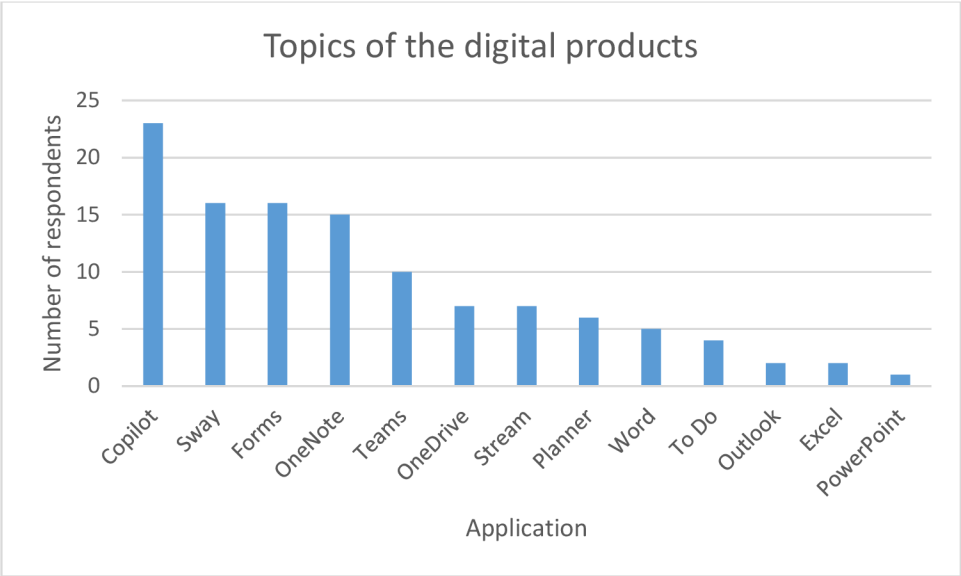
Graph 2 - Preferred methods of learning digital technology
(Source: Author's own work based on the answers from the questionnaire)

From the respondent's perspective, they are using both offline and online sources to learn about digital technology and related skills. Prevailing options from offline sources are mainly in-person seminars or workshop and peer-learning - the exchange of information with their fellow teachers. In the online environment, the strong emphasis is on the video aspect of the learning process. The vast majority of respondents (86%) prefer live webinars, followed by online video courses (pre-recorded)(48%) and free video content on websites like YouTube (36%). Readable content like eBooks or internet articles was one of the preferred methods 16% of respondents.



Graph 3 - Preferred educational digital products
(Source: Author's own work based on the answers from the questionnaire)

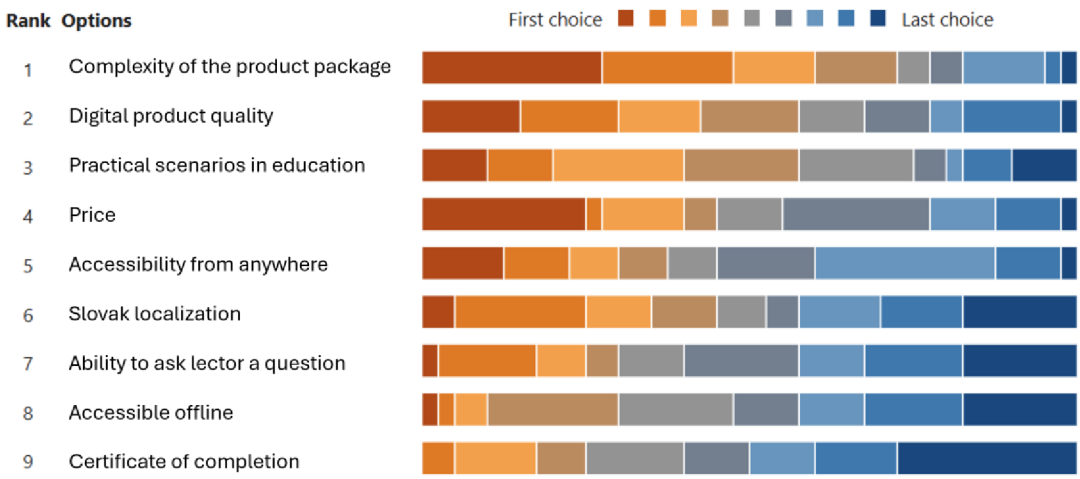
When asked about their preferences in the potential portfolio of digital products of the Company XYZ consisting of structured online courses, live webinars and downloadable learning materials, the webinars were still preferred the most as a standalone product, however, there was also an emphasis on the combination of all of the above products. The downloadable materials as a standalone product were omitted completely by the respondents, making them considerable only as a supporting material of the video type of content. This is further supported by the answers of the questionnaire, as 76% of respondents find as important to have pre-made downloadable materials for the direct use in their classes available with a paid digital product. The specific ideas for the type of downloadable content included for example worksheets, methodical sheets, application one-pagers with tips and tricks and templates for quizzes.



Graph 4 - Topics of the educational digital products
(Source: Author's own work based on the answers from the questionnaire)

As to concrete topics of learning, the respondents could choose up to 3 application topics. From the results we can see the state of the adoption of classic Office suite of applications, as the knowledge level in these is perceived by the majority of respondents as sufficient without the need for further education. We can see this trend in Microsoft Teams as well, probably due to the fast adoption and many learning activities during the Covid-19 pandemic, although its position is still relatively high. Answers for Sway, Forms and OneNote presented a potential need for more learning opportunities in these topics. Microsoft Copilot was the most demanded application focus, showing it as one of the trending products in the Microsoft portfolio.

2.5.3. Customer expectations



Graph 5 - Factors influencing the buying decision process of a digital product
(Source: Author's own work based on the answers from the questionnaire)

The question was focused on the preference of factors influencing the buying decision of the customers by ordering the options based on their relevance, with 1 being the most relevant for making a decision. The final ranking was based on the total percentage of respondents having a specific factor as one of their first 4 preferences and the ratio between different choices was also considered (for example Slovak localization being as the last choice in more respondents than the number of respondents having it as the first choice). The main deciding factors contributing to the decision about investing in Microsoft 365 digital learning products is the complexity of a product, for example a structured online course with additional materials, pre-made lesson activities or readable instructional materials, followed by the quality of the product itself and then focus on the practical scenarios for the usage in classes, as opposed to simply showcasing the application's features. Price is also a factor to be considered, as it was the 1st choice of the 25% of respondents. The digital product should preferably be localized in Slovak language. The ability to discuss with lector and ask further questions, together with certification of completion were at the bottom of the respondent's preferences.

2.5.4. Price sensitivity

Part of the questionnaire was dedicated to the price sensitivity and expected pricing of digital learning products.

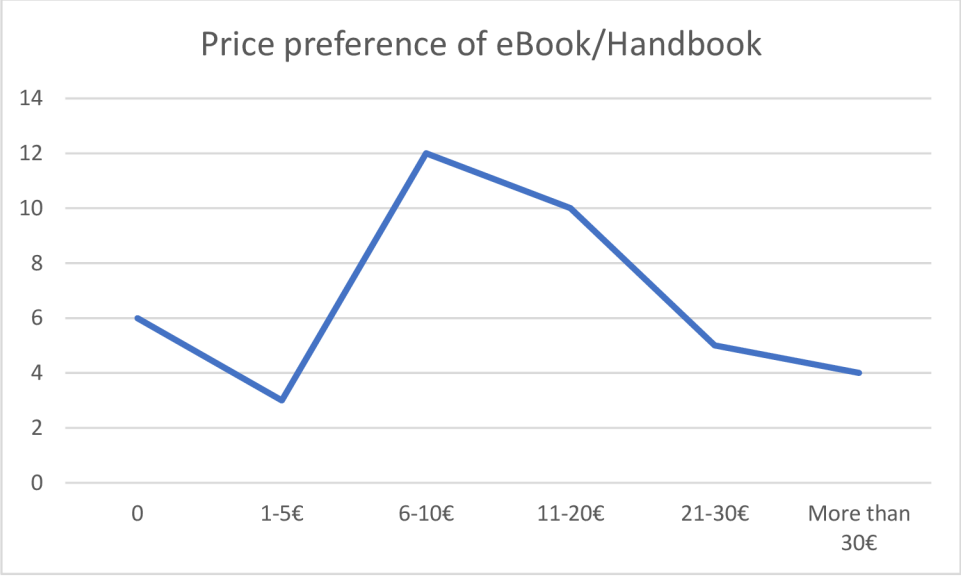
As it was necessary to provide more context to the different forms, a narrower specification of products was created together with the founder of Company XYZ. The products were defined as follows:

Table 11 - Definition of specific digital products in questionnaire
(Source: Author's own work)

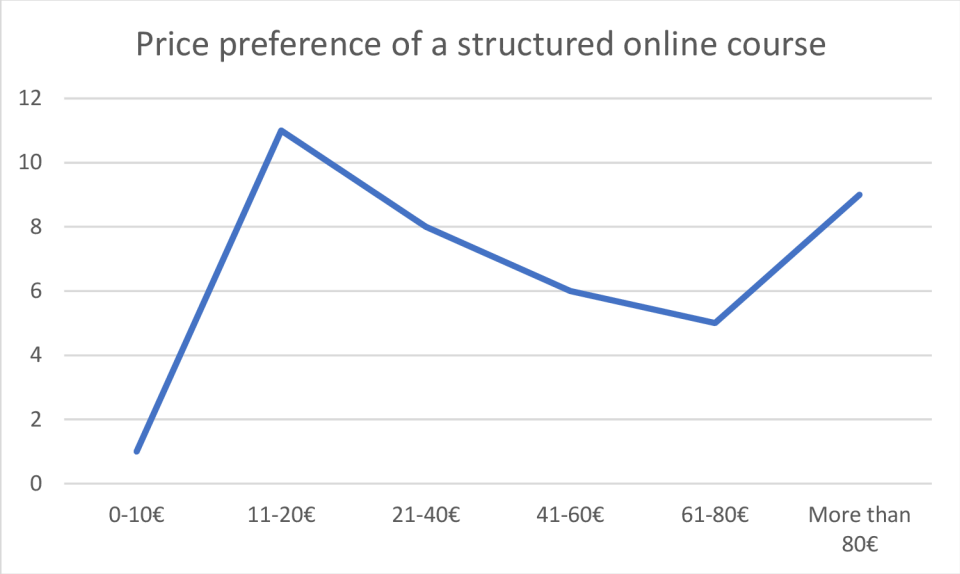
Type of digital product	Product specification
Webinar	The webinar is approximately 90 minutes long, with an explanation of the functionalities based on the topic, combined with practical demonstrations and opportunities for integration into lessons. The webinar also includes a discussion section with the opportunity to ask questions. The webinar can be reviewed via a recording for the participants.
Structured online course	The course would discuss the individual application functionalities and their connections to each other in depth (e.g., the combination of Teams, OneNote and Forms). Range of 25-30 videos of up to 10 minutes in length.
eBook/Handbook	Focus on a specific application (e.g., OneNote) with a range of about 20-40 pages. The content is a selection of functions and their explanation with regard to their use in the school environment with graphical instructions.

To these products, there were specific price-points chosen, based on the complexity of the product and the experience of the author and the owner from previous encounters with digital products in the same category. The data about price preferences were collected to form a base for the general pricing strategy of the digital products, but the author suggests a more thorough analysis to be made, as this was not in the main focus of the thesis. Based on the type of the product, the customer's price expectations varied, as shown below with a more specific breakdown.

Graph 6 - Price preference of live webinars
(Source: Author's own work based on the answers from the questionnaire)



Graph 7 - Price preference of eBook/Handbook
(Source: Author's own work based on the answers from the questionnaire)



Graph 8 - Price preference of a structured online course
(Source: Author's own work based on the answers from the questionnaire)

Starting at the lowest price range of the spectrum, handbooks were valued the least, with the majority of respondents opting for a price range of 6-10 EUR per product. Live webinars should be priced at up to 30 EUR per webinar, preferably in the 11-20 EUR range. With the structured online course, more data should be gathered as the analysis showed a customer segment divided in 2 groups with different price expectations, at one end, we have customers valuing a more complex online course the same as a live webinar, on the other having also customers willing to pay more than 80 EUR per course. Based on the complexity related to the making of such course, the author suggests the price somewhere in the range of 60 to 80 EUR per course.

2.5.5. Customer profile

The customer profile was created for the customer segment of teachers at primary and secondary schools in Slovakia. Age group of teachers in the questionnaire is 25-65 years. Gender of the teacher does not play a role here. The subject taught is mostly STEM (e.g., informatics, mathematics, physics, chemistry) followed by languages and 1st stage primary education and these teachers must be actively using Microsoft 365 technology in their pedagogical practice. Based on the interview with the founder and directors of schools with additional input from the answers of respondents, the following customer profile was created. The color representation in Customer Jobs mark functional, social, and emotional jobs as per Osterwalder et.al (5).

Table 12 - Customer profile of teachers learning Microsoft 365 technology for their practice
(Source: Author's own work based on the answers from the questionnaire)

Customer Jobs	Pains	Gains
Learning new Microsoft 365 skills	Lack of time to learn	Efficiency in their pedagogical practice
Staying updated on new features	Amount of different technology features and sources	New digital skills
Trying new features for themselves	Fast development of software and adding of new features	Sense of achievement
Troubleshooting problems with technology	Old school hardware infrastructure	Improving student engagement and interaction in classes
Including learned technology in lesson plans	Lack of English language skills	Enhancing adaptability to changes and new technology
Preparation/Finding materials and activities to use in classes	Lack of support from colleagues and directors	Future-proofing their own skills
Sharing knowledge with others – peer learning	Lack of quality materials for the use in lessons	Gaining resources to prepare the new generation of workers
Seeking help when stuck	Lack of confidence in own digital skills	Gaining deep knowledge in products they are familiar with
Gathering materials and resources for use in the learning process	Getting stuck when technical problems arise	
Getting accustomed to hardware limitations in schools	Lack of time to prepare own materials	
Motivating colleagues and students to accept activities with the use of digital technology		
Finding time for learning new skills		
Gaining confidence in digital technology		
Managing the amount of information sources		
Finding the balance between classical and digital methods of teaching		

2.6. Competition analysis

There are a number of competitors currently operating in the space of educational products in Slovakia. These range from companies focusing solely actualization and innovation education in schools to big web portals offering individual online courses on various topics. The mix of 8 companies was chosen after an initial desk research and consultation with the founder of Company XYZ, as they all compete, directly or indirectly with the same target segment of customers – primary and secondary teachers in Slovakia.

2.6.1. Information about competitors

365 Services

365 services is a provider of actualization and innovation education for school in the topics of digital competencies, cyberbullying and coaching. The educational products are mainly offered as a combination of these topics, which can be taught in-person or online via a webinar. The range of topics in the digital competency section includes Cybersecurity, Microsoft 365, Google Cloud and AI for schools. Other products offered include setting up of the Office 365 in the schools and support. Site also offers a couple of free recordings from their public webinars. (65)

Interaktívna škola

Interaktívna škola is an e-shop with digital technology for schools, offering wide range of products and software solutions for the use in learning process. One section of their portfolio is also focused on innovation and actualization education in the topics of digital competencies of teachers, Microsoft 365, cybersecurity, and other educational software. Education is offered in the form of live webinars, but some workshops require in-person attendance. Prices are set at 120€ per individual per course. (66)

Uniškola

Uniškola offers a portfolio of educational courses for the customer segments of companies, schools, and individuals. School-specific courses are focused on actualization and innovation education in the topics of Microsoft 365 and ascAgenda. The courses are priced at 119€ per individual. (67)

Softimex Academy s.r.o

Softimex is a provider of professional education for teachers in Slovakia. They offer a wide range of topics in their actualization and innovation education portfolio. These topics include Microsoft 365 technology, other cloud applications, the use of mobile phones, tablets and other hardware in the classroom and educational frameworks, like mind-maps. The price for an online course taught via an online webinar is set at 80€ per course. (68)

Edusteps

Edusteps is a citizens organization providing education for teachers and schools. Their portfolio is built around educational webinars, as well as innovation and actualization education of schools. They are affiliated directly with Microsoft as a Global Training Partner. The webinars are focused on best practices and use of Microsoft and other technology in educational environment and they offer both free and paid webinars. (69)

Skillshare

Skillshare is a world-wide online learning platform focused on pre-recorded online courses on topics from digital technology through marketing, business all the way to lifestyle and productivity courses. The courses are made and taught by professionals. Thanks to this there are currently more than 25000 courses available. Users gain instant access to all of them after paying either a monthly or yearly subscription fee. The courses offered are localized in English, German, French, Portuguese, or Spanish. Courses cannot be purchased separately, but a 7 day free trial is offered for new accounts. (70)

Seduo

Seduo offers similar business model as Skillshare, with the difference being the ability to buy courses separately for individuals, or by a paid subscription that needs to be offered by the employer as a benefit. The courses are also localized in Slovak or Czech language, albeit the range of the portfolio is significantly less developed in comparison to Skillshare. There is currently almost 400 courses, 50+ being focused on Microsoft technology. The prices of courses in digital competencies are ranging from free to 100€. The courses are not accredited as part of innovation education. (71)

GOPAS

Gopas is the biggest provider of IT training in Slovakia and Czech republic with more than 2000 courses in the topics of various IT technology solutions. Although the vast majority of courses are lectured in-person, GOPAS offers an extensive eLearning portal focused mainly on Microsoft technology, including Microsoft 365. The courses are localized and can be purchased individually. GOPAS does not offer innovative and actualization education, but can provide certifications. (72)

2.6.2. Benchmarking criteria

To narrow the field of focus in the initial phase of the competition analysis, 4 criteria of evaluation were chosen, namely:

1. **Product portfolio** – the broadness of topics, focus on primary and secondary education, online form of education, time-flexibility. Partial criteria:
   - Microsoft 365 apps included in the portfolio
   - Focus on using technology in education
   - Online-form of education
   - Time-flexibility of education
   - Other digital products apart from webinars (eBooks, product cheat sheets etc.)
2. **Web-page** – as the Company XYZ wants to focus on the effective use of digital channels, the website of competitors was looked at from the perspective of the design, ease of use and finding of information and optimalization for mobile devices.
3. **Localization** – Here we look at the localization aspect, whether the digital products are available in the Slovak language, as this criteria was identified by the customer analysis as one of the deciding factors.
4. **Free materials** – Evaluates if the competitor is releasing free materials and digital products to their customers, due to the price sensitivity of a group of respondents.

These criteria were then evaluated on a scale from 1 to 5 based on the information available publicly on the websites of competitors and their social media profiles (if applicable). 3 competitors with the most amount of points were then selected for the next part of competitor analysis.

The results of the initial evaluation are depicted in the following table. The reasoning behind the evaluation for every company can be found in the Annex IV.

Table 13 - Competitor analysis
(Source: Author's own work)

Name	Educational Portfolio	Web-page	Localization	Free materials	Total
365 Services	2	2	5	3	**12**
Interaktívna škola	3	3	5	1	**12**
UNIŠKOLA	3	2	5	2	**12**
Softimex Academy s.r.o	3	2	5	1	**11**
Skillshare Inc.	5	5	2	3	**15**
GOPAS	3	4	5	2	**14**
Seduo	3	5	5	3	**16**
Edusteps	4	3	5	4	**16**

At the end of the analysis, 3 competitors were identified as most relevant for the Company XYZ, namely Skillshare, Seduo and Edusteps. In the next part of the competitor analysis the focus will be on finding strengths and weaknesses in the respective benchmarking criteria of selected competitors.

2.6.3. Strengths and weaknesses of the selected competitors

Skillshare

Skillshare is one of the most popular worldwide platforms for online courses with the broadest portfolio of offered courses from the competitors selected for the analysis. Therefore, it is easy to find multiple courses focused on Microsoft 365 products, whether its application deep-dives or links between the applications in the context of modern work and collaboration, or their application in education. The courses are mostly taught by industry professionals, but anyone can apply to become a teacher at Skillshare. This can result in varying quality of the courses, although Skillshare has measures in place to ensure the overall quality of the courses stays on a high level. The courses are offered in 5 languages, Slovak or Czech are currently not supported. The learning abilities are built on a strong e-learning platform with the focus on user-friendliness, which offers users access from anywhere via a website or a dedicated mobile app. The mobile application offers users the option to download courses for offline viewing when the internet access is not available. As the courses are taught in the form of prerecorded videos, users can learn at their own pace and not be bound to a specific time, or a rigid schedule. The platform also offers some community teachers, where other learners can share their experience with the courses, discuss and give feedback to each other. The service is centered around video online courses, but author's themselves can include some downloadable content, such as handbooks or activities to do. This is however not the case with every course.

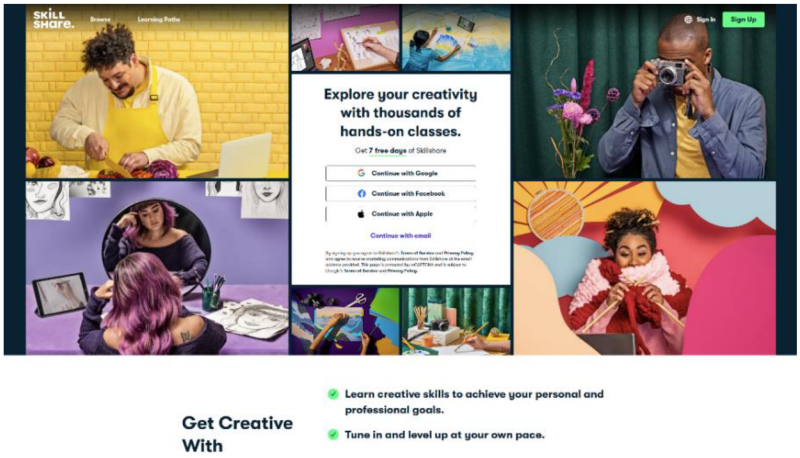


Figure 4 - Website UI of Skillshare

(Source: Screenshot from (70))

The business model is subscription-based with either a monthly or annual subscription options, which give access to the whole portfolio of more than 25000 courses. With that in mind, the company surely tries to cater to a broad segment of people as opposed to being a platform focused on a niche segment – like primary and secondary teachers. To try out the service, new users can gain access to a 7 day trial.

Table 14 - Strengths and weaknesses of Skillshare
(Source: Author's own work based on (70))

Strengths	Weaknesses
Broadness of online courses portfolio	No Slovak or Czech content
Learning flexibility (time, download of courses)	Limited to video format
Strong e-learning platform and functions	Not focused solely on primary and secondary teachers
Community features	No option to buy separate courses

Skillshare's value proposition: A comprehensive online learning platform offering flexible, high-quality courses taught by industry professionals, empowering learners worldwide to develop their skills and pursue personal and professional growth.

Seduo

Seduo is an e-learning platform operating in multiple countries across the Europe. Among these countries it has a presence in Slovakia, offering professional local-made content in Slovak or Czech language. It is primarily targeting companies to offer the courses as a benefit to their employees, but individual courses can be purchased separately. They offer multiple categories of content, focusing on video courses taught online. 380+ courses are in the form of pre-recorded videos, but live webinars and "academies" a couple-week long groups of courses are also offered. These academies combine various forms of education – video, webinars, practical exercises, and feedback from the lecturer. Lastly, the platform is also exploring short-form video content with their #espresso video tips and tricks. This is a format of 1-5 minute videos offering useful tips and tricks which can be easily implemented into practice.

The website itself is very well built, the UI, usefulness of information, everything is easily accessible and a mobile application is also available, offering same benefits as in the case of Skillshare. The topics of the courses vary from personal development to technical skills. Microsoft 365 is represented very well, with application deep-dives and also bigger courses showing the interconnections between different applications and how to use them in practice. They are focused on the use in a work environment, not specifically in a classroom or during a lecture at school. Microsoft 365 is also included in their short-form #espresso video format, although only with the business license.

Figure 5 - Website UI of Seduo

(Source: Screenshot from (71))

Users can gain access to the whole platform only when their employer pays the subscription fee for the company and offers it as a form of benefit. For individuals, an option to buy individual courses is presented with prices usually in 30 to 50 EUR range for a course in Microsoft technology. The length of the courses also varies in length from 15 minutes to around 1 hour and 30 minutes. Some content is offered for free, although not in the Microsoft 365 topics.

Table 12 - Strengths and weaknesses of Seduo
(Source: Author's own work based on (71))

Strengths	Weaknesses
Localized content made by professionals	Business focused approach – teachers are not a primary customer segment
Strong e-learning platform and functions	Some features and courses requiring business license and cannot be accessed by individuals
Various forms of content – from short-form to comprehensive academies	No subscription model for individuals
Option to buy individual courses	Varying course length
Free content available	

Seduo's value proposition: An e-learning platform offering professional, locally-made courses in Slovak and Czech designed for corporate training and individual growth, incorporating multiple forms of education and learning styles.

Edusteps

Edusteps is the only company out of the 3, which focuses solely on the education of teachers and schools. They are a provider of innovation and actualization education with topics focused on digital transformation of schools and the effective use of technology in education. In this part, they have very similar business model to Company XYZ, with the difference being the focus on multiple technologies and not Microsoft 365 exclusively. This results into a portfolio that is diverse, often combining multiple services and showing the synergy between them, resulting in courses that can be perceived as practical. Out of the all companies in the initial phase of the competitor analysis, Edusteps is the only one that offers other paid educational digital products – namely webinars for teachers, addressing their need for self-development apart from innovation education offered by other companies. The webinars are focused on wide variety of topics from the emerging educational trends, including Microsoft 365 and notably Minecraft Education, which was not included in any of the other competitors portfolio. Some of the webinars are offered for free, paid webinars cost 12 EUR to attend. Webinar recordings of the free webinars are available on YouTube.

Edusteps is also one of the few offering other forms of digital content, namely PDF guides, which can be downloaded on the site and used by a teacher when preparing an activity for a lecture.

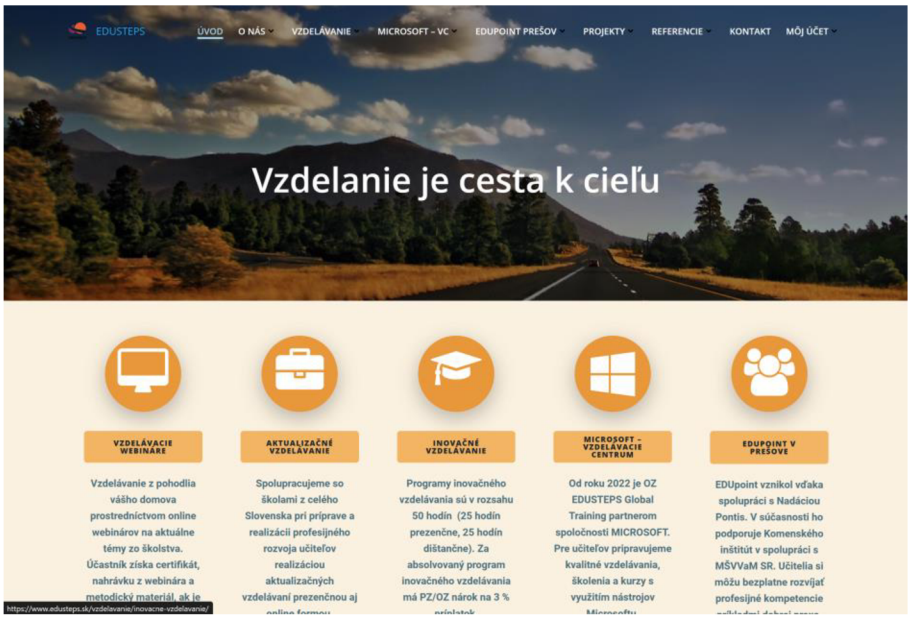


Figure 6 - Website UI of Edusteps

(Source: Screenshot from (73))

The website of Edusteps lacks behind the content in terms of the UI and graphical design of both the site, and in presentations, materials and posts offered. The process of buying is not seamless. It requires a registration via form on the website, but the payment is only possible via a bank transfer which affects the customer experience negatively.

Table 12 - Strengths and weaknesses of Edusteps
(Source: Author's own work based on (73))

Strengths	**Weaknesses**
Focus on primary and secondary education	Website functionality and graphical design of the content
Addressing self-education needs of teachers	Ordering process not seamless
Practical-oriented digital products	Diverse portfolio of technology
Additional downloadable content	Dependency on webinars as the main content delivering form

Edusteps' value proposition: A provider of education for teachers and schools, offering courses, webinars, and downloadable guides focused on effective technology use in education.

2.7. Implications for Company XYZ – SWOT analysis

The analytical part supports the Company XYZ's belief to move towards digital product portfolio and showed the opportunity presented by such move from different perspectives. Globally the trends in digital transformation, including the educational technology seem to be unstoppable, accelerating the adoption in schools and creating the need for professional education of teachers in the respective areas.

Testaments of the schools' management and the state advisor defined different roles of the stakeholders and provided insight into initiatives, which could be utilized by Company XYZ in their product portfolio and future development of the business.

When looking at teachers themselves, the customer analysis indicates that they could support and welcome digital products other the current offering by companies focusing on the professional development of teachers and schools. Their expectations from digital products also narrowed the field of focus in regards to characteristics of the products to positively affect the decision-making process and topics which should be covered by the proposed digital portfolio.

Lastly, the competitive analysis presented the market gap for digital products focused exclusively on primary and secondary education teachers. By looking at the 3 competitors in competition analysis, we can see that each one has a different strengths and weaknesses contributing to their value proposition for the customer. The combination of these strengths and weaknesses can be transformed into opportunities, which should be addressed by the proposed value proposition of the digital product portfolio.

This information connected with the value the Company XYZ can bring to the customers creates a compelling base for the value proposition of the new digital product portfolio.

Main aspects of the analytical part are summarized in the following SWOT matrix:

Table 15 - Summary of the analytical part – SWOT
(Source: Author's own work based on (29)(31)(32)(33)(34)(35))

	Helpful	**Harmful**
Internal	**Strengths** • Knowledge of the market from customer and provider perspective • Recognition in the educational space – personal brand • Focus and the ability to create practical scenarios of technology use • Experience in the creation of digital forms of education • Very deep level of experience in the Microsoft 365 technology	**Weaknesses** • Time required to create a compelling digital product portfolio • Delegation of work – 1 person company • Current website needs to be modified to accommodate more complex digital products • Not the main focus of the founder
External	**Opportunities** • Emerging technological trends being implemented into schools • Strong need for professional education of teachers • Market penetration of Microsoft 365 • Potential support of Microsoft 365 from the state • Need for self-education in topics currently not addressed fully by competitors • Need for practical scenarios of use in schools • School digital coordinators as a customer segment • Potential financial support of teachers self-education initiative from the school management	**Threats** • Possibility of bigger companies entering the market • Risk of companies offering innovation education entering the digital products market • Inability to provide certification for the completion of education • Varying level of digital skills of teachers • Keeping the created portfolio up-to-date with latest features • Balancing the complexity of a digital product portfolio • Some teachers can find innovation and actualization education as sufficient • Not all school subjects are affected equally by digital transformation

3. Proposal part of the thesis

3.1. Change in Business model canvas of Company XYZ

The move towards a digital product portfolio results first and foremost in the change of the business model of Company XYZ. The main area being the shift in the customer segment from school management to **teachers and school digital coordinators**. School management can still be targeted as a secondary customer – namely the Innovative visionary director persona presented in the analytical part due to their potential to financially support other educational methods – like proposed digital products as a way to develop professional skills of their staff. This directly affects the communication with customers and channels – making the website a dominant channel for communication and sales of the products and secondly creating a new channel to interact with customers via live webinars organized as part of the proposed portfolio.

The online nature of the digital product portfolio will also affect the revenue and cost structure of the business. There is no need to physically travel to the customer and the revenues will become based on the **sales of the proposed digital products**. All of the cost structure is based around **creating and maintaining the digital products** necessary for the delivery of proposed digital portfolio to customers. In the initial phase of the creation, the main cost identified would be the **time of the founder** required to create the structure and materials for the courses, their recording and postproduction. If the company opts for the enhanced functionalities offered by e-learning platforms, there would be **development costs related to the creation of the platform** to host structured online courses.

Key activities stay mostly the same in regards to the technology and creation of the scenarios, which were practiced by Company XYZ in their previous business operation to stay updated on the latest trends and to create a value proposition of practical scenarios of showcasing the use of technology in education. However, to adopt the new products, it requires the Company to engage in activities related to maintaining a creating the proposed products, like above-mentioned recording and postproduction of courses. The proposal also counts with the presence of the founder on social media platforms – engaging with customers, sharing useful information and updates, writing blog articles will become one of the main activities to support the sales of the digital portfolio.

These changes will shift the value proposition of Company XYZ from one provided to schools to the self-education of teachers, but the main proposition of the **practical showcase of Microsoft 365 technology in education backed by years of experience with educational technology** remains the same. It is enhanced by the value propositions of the proposed digital products, which address various level of digital skills of customers. The online form of the product portfolio also offers a flexible form of education catering to different learning styles of the customers. The value propositions of specific products is shown in greater detail in the proposal of the digital product portfolio.

Table 16 - Changed BMC of Company XYZ
(Source: Author's own work)

<table>
<tr>
<td rowspan="2"><u>Key partners</u>

• Microsoft
• Network of people from education segment
• Innovative teachers</td>
<td><u>Key activities</u>

• Monitoring the latest trends in education technology
• Mapping the needs of teachers and schools
• Creating educational scenarios
• Localization of features and scenarios (if they are applicable)
• Recording and postproduction of videos
• Organizing webinars
• Presence on social media platforms</td>
<td rowspan="2"><u>Value propositions</u>

• Practical showcase of Microsoft 365 technology in education
• Corporate knowledge connected with educational background
• Showcase of trends and skills necessary for students
• Accessible, time-flexible form of education
• Multiple levels of difficulty
• ~~Fulfillment of the prescribed plan of professional development of teachers~~
• ~~Adaptability to exact schools and teachers needs~~</td>
<td><u>Customer relationships</u>

• Free video tips and tricks
• Blog articles
• Social media
• Webinars and discussions online
• Conferences and events</td>
<td rowspan="2"><u>Customer segments</u>

• Teachers of primary and secondary schools
• School digital coordinators
• Directors of primary and secondary schools in Slovakia</td>
</tr>
<tr>
<td><u>Key resources</u>

• Computer
• Microsoft 365 suite
• Graphical software
• Website and e-shop platform
• Video editing software
• ~~Car for transportation~~</td>
<td><u>Channels</u>

• Website/E-shop
• Live Webinars
• Social media
• Word of mouth
• Meetings at events</td>
</tr>
<tr>
<td colspan="3"><u>Cost Structure</u>

• Website development
• Time
• ~~Transportation cost~~
• Web and blog hosting
• Software subscriptions (Microsoft 365, Adobe Suite etc.)
• Computer hardware (computer and accessories)</td>
<td colspan="3"><u>Revenue Streams</u>

• ~~In-person workshops or seminars for schools~~
• Paid webinars
• Structured online courses
• Other digital products</td>
</tr>
</table>

3.2. Proposal of the digital product portfolio

Having in mind the results of the analytical part of the thesis, the following digital product portfolio was proposed to ensure a comprehensive product package accommodating different needs and learning preferences of teachers. The portfolio is focused on video type of digital products, as this was the most preferred option among the customers.

3.2.1. Live webinars

To start with the digital portfolio, live webinars seem to be the perfect digital product. Their input costs require mostly time of the founder and can be implemented into the existing website platform. The founder already has a rich experience with the creation of this format, ensuring effectivity and quality of the webinars.

Webinars are also the preferred method of learning based on the customer analysis, with the benefit of live interaction with the speaker and other attendees. The proposed length of one webinar is 90 minutes, with 60 minutes dedicated to the showcase of features in a practical way, with demo scenarios and classroom activities. Up to 30 minutes should be reserved for specific questions from the audience of the webinar, either vocally or via chat.

The "teaching" part of the webinar should be recorded. The recording gives attendees the ability to revisit the webinar in the future, addressing the time flexibility. It also gives Company XYZ the ability to sell previously streamed webinars on the website – a feature that can differentiate the portfolio from the competition. The discussion part should be reserved only for the attendees of the webinar itself without recording – giving teachers the additional motivation to attend the webinar live. Recording the webinar also gives the option to include parts of the webinar in other digital products of the portfolio – like short tips and tricks or structured online courses.

Webinars can be categorized into 3 levels:

1. **Introduction to a single Microsoft 365 application**
   Basic introduction, describing the usage, practical implications, motivating teachers to include the application in their practice
   Level of skill: Beginner to intermediate

2. **Practical showcase of features and implementation to lessons**

   Focus on 3-4 features of a Microsoft application and their practical use in lessons, activities, demo scenarios

   Level of skill: Intermediate to advanced

3. **Advanced showcase of applications**

   Showcasing the synergy with other applications in Microsoft 365 ecosystem, advanced activities

   Level of skill: Intermediate to advanced

The different levels are designed to accommodate a variety of skill level among the customers from beginners to advanced users. It also gives customers the opportunity to progress in their skills, potentially turning them into recurring customers.

The concrete topics to focus on with the webinars – Microsoft Copilot, Learning Accelerators, Accessibility tools, Sway, Forms and OneNote for their current demand among customers.

It is recommended to include downloadable material/s with each webinar. For the 1 level it can be a keyboard shortcut cheat sheet for the specific application, for levels 2 and 3 a guide to an activity in school or pre-made template, quiz or worksheet. These can be utilized in online courses as well.

Recommended pricing for the webinar 10€ for Level 1 and 15€ for levels 2 and 3. The recordings of the webinars should be offered to the paying customers.

Table 17 - Value proposition canvas of live webinars
(Source: Author's own work based on (5))

<table>
<tr><th>Product</th><th>Gain creators</th><th>Gains</th><th>Customer jobs</th></tr>
<tr><td rowspan="3">Live webinars</td><td>• Practical demonstration of specific applications in lessons
• Showing useful features to improve teacher's work</td><td>• Efficiency in their pedagogical practice
• New digital skills
• Future-proofing their own skills</td><td rowspan="3">• Gaining confidence in digital technology
• Staying updated on new features
• Seeking help when stuck
• Managing the amount of information sources</td></tr>
<tr><td>Pain relievers</td><td>Pains</td></tr>
<tr><td>• Webinars in Slovak language
• Introduction to the topic
• Not too broad focus
• Ability to interact with speaker and ask questions
• Multiple levels of difficulty of webinars</td><td>• Lack of time to learn
• Amount of different technology features and sources
• Lack of English language skills
• Getting stuck when technical problems arise
• Lack of confidence in own digital skills</td></tr>
</table>

Value proposition of Live webinars: "A practical showcase and interactive sessions in Slovak to enhance digital skills and confidence in using Microsoft 365."

3.2.2. Free content

The proposal for the free content was inspired by the #espresso video format of Seduo. It should focus on short-form 1 minute videos offering tips and tricks for Microsoft 365 portfolio of applications as a way to quickly learn new digital skills. These should be distributed using digital channels (Facebook, Instagram, YouTube) using the vertical video format.

Topics of the free content could include (1 video):

1. **1 feature of a specific Microsoft 365 app** – e.g. How to organize a live event in Microsoft Teams, Using Cameo in Microsoft PowerPoint presentations
2. **Quick tips** - "Did you know you can do this in…?"
3. **News from the Microsoft ecosystem** – What features are being added in the following months and what does it mean for schools?

This helps teachers wanting to learn something new in a short amount of time, without much friction. It can also help Company XYZ in attracting new customers to its paid offering in the form of webinars, full courses, or downloadable lesson activities. These quick tips also serve a purpose of a teaser, which shows some of the features that can be learned, but still leaves spaces for going into more detail in a longer-format and paid digital products.

Table 18 - Value proposition canvas of free content
(Source: Author's own work based on (5))

<table>
<tr><th>Product</th><th>Gain creators</th><th>Gains</th><th>Customer jobs</th></tr>
<tr><td rowspan="3">Free content – Video tips and tricks</td><td>• Product tips and tricks
• Step-by-step guides of features
• Sharing capabilities</td><td>• Sense of achievement
• Enhancing adaptability to changes and new technology
• Learning new digital skills</td><td rowspan="3">• Staying updated on new features
• Finding time for learning new skills
• Managing the amount of information sources
• Sharing knowledge with others – peer learning</td></tr>
<tr><td>Pain relievers</td><td>Pains</td></tr>
<tr><td>• Short-form content
• Easily accessible
• Format for mobile devices</td><td>• Lack of time to learn
• Fast development of software and adding of new features</td></tr>
</table>

Value proposition of free content: "Learn new Microsoft 365 skills on-the-go with short video tips and tricks, tailored and delivered for a busy life of a teacher"

3.2.3. Structured online courses

This type of digital product is targeted towards customers wanting to gain deep knowledge, master the Microsoft 365 applications and understand the connections between the whole ecosystem of products. It also caters to someone wanting to spread learning into multiple shorter sessions (10-15 minutes) as opposed to a longer webinar for example.

It is recommended for the Company XYZ to gradually work on the implementation of courses and start small, as the time complexity of such product is the greatest of all of the proposed digital products. This product also requires a change in the website infrastructure to provide a set of features offered by the likes of Seduo or Skillshare. The website platform is connected with initial costs for the development and periodical cost for the hosting of the platform and its maintenance.

However, an MVP (Minimal viable product) approach can be applied in the begging, with a simplified website, not offering advanced functionality like offline videos or community aspects of bigger platforms to drive costs down – as these functionalities are not the deciding factor based on the customer analysis. This is due to the unique selling point being the practical value offered by such course and its sole focus on primary and secondary teachers.

The proposed format of the courses is based on a group of medium-format videos (5-10 minutes) making the length of one course ca. 2 to 3 hours in total (around 20 videos per course). Additionally, to support the video content, downloadable materials should be included in the form of one-pagers, shortcut cheat sheets or demo activities to try out the features for themselves. The courses should focus on multiple Microsoft 365 applications bundled by a common theme or topic, so it includes a meaningful insight into how different applications can complement each other to help the teachers practice.

Based on the needs of teachers and the current portfolio of competitors, these three topics could give Company XYZ a competitive advantage by offering content not currently addressed by the market properly:

1. **Microsoft Copilot for education** – guiding through the use of artificial intelligence of Microsoft Copilot in Microsoft 365 applications, including videos activities that can be done with students to learn about artificial intelligence
2. **A toolkit of a digital teacher** – Focused on OneNote for digital notetaking, Quizzes in Microsoft Forms and making interactive presentations in PowerPoint and Sway
3. **Microsoft Teams as a platform for modern schools** – Focus on the functionalities necessary to ensure effective communication between stakeholders in schools (teacher-teacher, teacher-school management, teacher-student, teacher-parent), sharing and collaboration on documents, backup of teachers work etc.

The price for a course should be set between 60-80€ based on the complexity, length of the course and the number of included downloadable materials.

Table 19 - Value proposition canvas of Structured online courses
(Source: Author's own work based on (5))

<table>
<tr><th>Product</th><th>Gain creators</th><th>Gains</th><th>Customer jobs</th></tr>
<tr><td rowspan="3">Structured online courses</td><td>• Comprehensive course content
• Thematical bundles of multiple applications</td><td>• New digital skills
• Efficiency in their pedagogical practice
• Future-proofing their own skills
• Enhancing adaptability to changes and new technology
• Gaining deep knowledge in products they are familiar with</td><td rowspan="3">• Deepening knowledge in Microsoft 365 applications
• Understanding the ecosystem of products
• Finding time for learning new skills
• Managing the amount of information sources</td></tr>
<tr><td>Pain relievers</td><td>Pains</td></tr>
<tr><td>• Localized content of the course
• All-in-one package of the course
• Shorter, flexible video lessons available anytime
• Focus of the course specifically on primary and secondary education</td><td>• Lack of time to attend webinars
• Fragmented resources of different applications – not everything in one course
• Unclear examples in general tech courses
• Lack of English language skills</td></tr>
</table>

Value proposition of structured online courses: "Online courses for teachers accessible anywhere and anytime to master Microsoft 365 technology and seamlessly use it in a teacher's practice"

3.2.4. Lesson activities and scenarios

The proposed digital product portfolio includes downloadable materials only as a supplement to the video format offered by webinars or courses. Based on the outputs of the analytical part, they should be created mostly for the STEM subjects and languages.

The materials in itself have their own value proposition, which enhances the value proposition of a digital product they are supposed to extend.

Table 20 - Value proposition canvas of Lesson activities and scenarios
(Source: Author's own work based on (5))

<table>
<tr><th>Product</th><th>Gain creators</th><th>Gains</th><th>Customer jobs</th></tr>
<tr><td rowspan="3">Lesson activities</td><td>• Guides for implementing Microsoft 365 in education
• Demo scenarios
• Product cheat sheets</td><td>• Improving student engagement and interaction in classes
• Gaining resources to prepare the new generation of workers</td><td rowspan="3">• Including learned technology in lesson plans
• Preparation/Finding materials and activities to use in classes
• Finding the balance between classical and digital methods of teaching
• Trying new features for themselves</td></tr>
<tr><td>Pain relievers</td><td>Pains</td></tr>
<tr><td>• Pre-made materials and activities</td><td>• Lack of quality materials for the use in lessons
• Lack of time to prepare own materials</td></tr>
</table>

Value proposition of lesson activities: "Ready-to-use Microsoft 365 materials and guides to accelerate preparation time of lesson activities and improve student engagement during lectures."

3.3. Customer personas

Table 21 - Customer Persona 1
(Source: Author's own work)

Viktória the Enthusiast

Demographic Profile

Age: 35

Occupation: Secondary School Science Teacher, School digital coordinator

Location: Urban area in Slovakia

School environment:

Microsoft 365 used in the school actively by teachers and students, Microsoft Teams as a communication platform. High level of technological adoption in terms of the school infrastructure.

School director persona: Innovative visionary

Characteristics:

Uses technology daily in relation to her occupation.

Enjoys exploring new tools to enhance her teaching.

Actively seeks professional development opportunities.

Goals:

Deepen Microsoft 365 skills to improve student engagement.

Incorporate emerging trends like Artificial Intelligence into her lessons.

Pain Points:

Limited time to learn due to a busy teaching schedule.

Overwhelmed by the fast development of new software features.

Digital Product Preferences:

Prefers structured online courses with practical examples.

Values downloadable materials that can be quickly adapted for classroom use.

Table 22 - Customer Persona 2
(Source: Author's own work)

Roman the Traditionalist

Demographic Profile

Age: 55

Occupation: Primary School Math Teacher

Location: Small town in Slovakia

School environment:

Microsoft 365 used in the school mostly for sharing documents and communication between the school management and teachers. Moderate level of technological adoption in terms of the school infrastructure.

School director persona: Moderate adopter

Characteristics:

Uses Microsoft 365 for basic tasks like creation of documents.

Skeptical about integrating too much technology into teaching.

Goals:

Stay updated with essential features of Microsoft 365 to maintain relevance.

Gain confidence in using digital tools to enhance his teaching practice.

Pain Points:

Does not know where to start with learning of his digital skills.

Struggles with the adoption of new technologies.

Finds it hard to keep up with the complex products like Microsoft 365.

Digital Product Preferences:

Interested in live webinars where he can interact with the lecturer and ask specific questions.

Table 23 - Customer Persona 3
(Source: Author's own work)

Peter the Visionary

Demographic Profile:

Age: 45

Occupation: School Director

School director persona: Innovative visionary

Location: City in Slovakia

School environment:

Microsoft 365 used in the school actively by teachers and students, Microsoft Teams as a communication platform. High level of technological adoption in terms of the school infrastructure.

Characteristics:

Forward-thinking and highly invested in the professional development of his staff.

Sees technology as essential for modern education.

Proactively seeks new tools and technologies to keep the school technologically advanced.

Willing to fully support the initiative of teachers in their self-development activities.

Goals:

Ensure that teachers are well-equipped with modern tools to enhance their teaching.

Provide above standard professional development of teachers in digital skills.

Pain Points:

Struggles to find a quality provider of innovation education in the area of digital technologies.

Managing the school's organization during the school year to provide as much learning opportunities for his staff.

Digital Product Preferences:

Whatever his teachers prefer

Values practical scenarios which could be implemented at his school

Seeks the most updated materials

3.4. Definition of next steps

The proposal part of the thesis addresses the time-capabilities of the founder and the position of Company XYZ as a secondary source of income. As it will require initial investment and time to prepare the website platform for some forms of the content, the products were designed to be implemented gradually starting by ones, which can be executed almost immediately. As the first step, the Company XYZ should start with the creation of the digital products targeted to developed customer personas and their needs. The products should be based on the included a framework for each individual digital products. These frameworks need to be further broken down into functionalities of a specific topic to form the exact content of webinars, online courses, or additional materials.

3.4.1. Live webinar digital product

Due to the time-complexity of structured online courses in particular, the author recommends to start with live webinars. This will help establish a base of the digital product portfolio. Recording of such webinars gives the added benefit of selling the recordings separately or in bundles to ensure the input of the Company XYZ will not be "single-use".

Taken into account the time-capacity of the founder, the author recommends to organize webinars in the thematic structure, focusing on a single topic during a 3 month, starting with Level 1 as an introduction to the topic and continuing with Levels 2 and 3 for more advanced users or attendees of the 1st webinar. Suggested start of the webinar series is aimed at the end of the august to align with the start of the school year and covers the whole school year. This measure also gives enough time for the preparation of webinars in advance, together with additional materials included with the webinars.

Table 24 - Proposed schedule of the live webinars
(Source: Author's own work)

	Topic 1			**Topic 2**			**Topic 3**			**Topic 4**		
	Artificial intelligence (Microsoft Copilot)			Enhance teaching using digital technology (Learning accelerators, Accessibility tools)			Digital Note-taking (Microsoft OneNote)			Interactive presentations and quizzes (Microsoft Sway and Forms)		
JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
X	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3

The 3 Levels from each topic can be used to build video bundles from the recordings and materials, which can form the first structured online courses offered on the website as the topics between live webinars and courses overlap significantly. The current website infrastructure should support this form of digital content and requires no additional cost for the development of the website or choosing an LMS.

As for the marketing, which is a topic on its own and was not the main focus of this thesis, the proposal recommends the use of already established channels for the communication of new digital products, closely focusing on social media with supporting content, such as free short-form video tips and tricks. Webinars in itself can form a strong communication platform, as they can include a teaser for the next level of webinar in the series, motivating customers to continue and develop skills with an already started topic.

The webinars should also serve as a way to gather feedback from customers about the form and content itself.

3.4.2. Structured online course digital product

Same as the webinars, a framework for structured online courses needs to be broken-down to different parts of the individual courses to evaluate, which content of a course can be covered by the recordings of 3 levels of webinars and what needs to be created separately for the purpose of an individual course.

The complexity of a course creation requires more time than the one of the webinar, therefore the proposal expects to start working on releasing the first course – focused on Microsoft Copilot only after all webinar from the topic 1 were concluded.

To take an MVP approach for the launch of the online courses makes the most sense for this proposal, due to the mentioned position of Company XYZ as a side project of a founder. In this approach, the first courses would consist of a bundle of webinar recordings from Levels 1 to 3, which will be edited into the medium format videos (10-15 minutes) by logical units. This should give the founder more than 2 hours of usable content for each course just from the concluded webinars alone. For the added value of an "MVP" course, the Company XYZ should focus on more downloadable materials for the usage in classrooms and brainstorming multiple activities for lessons, taking into account the feedback from the attendees of the webinars.

This approach makes it possible to offer a whole course for customers which prefer structured learning style and also to the attendees of the webinar series , who could be offered access to the enhanced library of downloadable materials for a discounted price.

The pricing strategy of this approach needs to be established as the prices included in this proposal are orientational. The feasibility of managing, hosting, and selling of these product bundles is possible with the tools already available to the Company XYZ, namely e-shop and Microsoft 365 platform for the management of the restricted access to course content.

3.4.3. Potential for future development

With the main focus of this proposal being on the implementation of a digital product portfolio, the analytical part identified other opportunities that could enhance the overall value proposition of the Company XYZ or provide the founder with other sources of income.

Implementation of a Learning Management System

Regarding the development of the product portfolio there is potential of a second approach to structured online courses. This approach proposes an integration of a learning management system for enhanced functionality of the courses, similar to bigger companies in the competition analysis.

Added benefits like offline video learning, community aspects and the possibility of a subscription-based model, which was evaluated by some respondents as a viable option for the self-development. It could further support the value proposition offered by the proposed digital portfolio. This option is connected with additional financial costs for the company and would require a more detailed assessment evaluating different options for the implementation of an LMS. Companies Seduo and Skillshare included in the competition analysis are a good inspiration if the founder decides to opt for this approach.

Expanding the team

As the founder is not under any existential pressure from the success of the implementation of the digital portfolio, this proposal was tied to the 1 person doing the work. With the potential to expand the product portfolio to other topics, as the new features are being developed rapidly, a viable option for consideration in the future would be to hire another person to help with the creation of the learning materials and preparation of webinars and courses. Perhaps an innovative teacher, someone who fits the enthusiast persona included in the proposal would be the best option.

Focusing on the director persona

The 3rd presented customer persona is a director one of an innovative visionary from the analytical part. This one in particular was included due to the conducted interviews with the school management which stressed the fact that they would be willing to support the self-development efforts of teachers even financially. Although the teachers are in the of the proposed products, working closely with directors and targeting this customer segment could open other sources of income for the Company XYZ like licensing the whole course portfolio to whole schools. As the founder already has experience with this customer segment from the current business model, it is a viable way to develop the business model of the digital product portfolio.

Innovation education

Innovation education in particular is an interesting option to add to the portfolio of the Company XYZ, as the requirements for the accreditation are attainable. The product in itself is rigid, requiring the creation of full 50 hours' worth of learning in combination with activities for the evaluation and giving of the certificate.

The conducted analysis indicates, that there would be potential for Company XYZ to enter the market and their current value proposition would position them as one of the leaders in the quality aspect of education. The focus of this thesis was only partially interested in the providers of innovation and actualization education, therefore is this opportunity only presented as an option for further consideration by the Company XYZ themselves.

Collaboration with the state

With the initiatives planned by the state, author suggests to closely monitor the activity of the National Center for the digital transformation of education, as there could be potential to collaborate and give Company XYZ other opportunities to develop their product portfolio.

3.5. Evaluation of the proposal

3.5.1. Economical aspects of the proposal

The goal of this thesis is not to create a detailed financial plan for the implementation of the proposed digital products. However, the author of the thesis is aware that alongside the time required by the Company XYZ, the implementation will be connected to direct costs related to the development of the products. It is important to note that the majority of the costs are already included in the cost structure of the Company XYZ so the proposal is mainly based on the utilization of the resources available. To provide an overview of the resources necessary for the proposed digital product portfolio with the MVP approach to online courses, the summary of estimated costs was created in the following table. The enhanced calculation can be found in the Annex V.

Table 25 - Estimated costs of the proposal
(Source: Author's own work based on (74)(75)(76)(77))

Planned usage	Product/Service	Price per year incl. VAT
Creation of scenarios, demo environment, trying new features, showcasing features in webinars and courses	Microsoft 365 Business Premium	296,64 EUR
Graphics, Video postproduction, Creation of posts and content for social media	Adobe Creative Cloud	804,12 EUR
Web domain	Websupport domain registration	17,88 EUR
E-shop platform	Shoptet basic	187,20 EUR
Total costs		**1 305,84 EUR**

The costs for the marketing are omitted as the proposal utilizes the established organic communication channels. The mentioned resources require a recurring yearly cost for the business and are necessary to maintain the proposed digital product portfolio. As they are included in the cost structure of the business, the author considers them as accepted by Company XYZ.

3.5.2. Performance evaluation of the proposal

For the evaluation of the proposal, the author suggests to evaluate KPIs one year from the implementation of changes. Given the online nature of the proposed product portfolio, a plethora of data can be drawn from the online services used by the Company XYZ. The KPIs for the products which should be monitored:

1. Number of live attendees of the paid webinars
2. Number of regular attendees of the webinars
3. Sales of the structured online courses
4. Visits of the company's website to evaluate conversion rate
5. Followers on social media profiles
6. Number of interactions with the free digital content

Additionally, a feedback should be gathered regularly at the end of each webinar regarding the form and content of the webinar. Company should evaluate the gathered feedback together with collected data to make further adjustments to the product portfolio.

3.6. Summary of the proposal part

The proposal part of the thesis was focus on processing the outputs provided by the concluded analysis of the problem and together with the principles defined in the theoretical part propose a complex approach to the creation of the digital product portfolio as a mean of the development of value proposition of Company XYZ. The goal of this product proposal was to create a compelling product portfolio based on the emerging trends in digital transformation of education, considering the latest products included in Microsoft 365 for education and utilizing the strengths of the current value proposition offered by the Company XYZ and that of relevant competitors.

The move towards digital product portfolio is connected with the change of the business model in the areas affected by the proposal. This change was captured and explained in the first part of the proposal part.

Most importantly, the proposal of the products was created with needs of the new customer segment of teachers in mind, with benefits of the specific products catering to the different learning styles, pains, gains, and customer jobs depicted in the value proposition canvas of each product. To offer a closer look at the desired customers of Company XYZ, the proposal includes 3 types of customer personas, which can be used by the Company XYZ in the future to create new topics, products or target these customers by a specific marketing campaign.

The company was given a structure of implementation of the proposed products to form the desired state of switching the business model and value proposition with the help of a digital product portfolio. Secondarily, the proposal included a look on other possibilities of development based on the opportunities identified by the conducted analysis.

Lastly, an evaluation from the economical and performance aspect was conducted to provide an overview of the costs related to the proposed changes and a guide to evaluate the performance of the proposed measures.

Conclusion

This bachelor's thesis was focused on of Company XYZ providing professional development of teachers in primary and secondary education in Slovakia. The goal of the thesis was to development of the value proposition required by the company's decision to shift its focus on a fully digital portfolio of products. The fulfillment of this goal was based on the 3 parts of the thesis – the theoretical concepts, analysis of the internal and external environment of the company and a proposal of a complex digital product portfolio creating the developed value proposition of the company.

The theoretical part of the thesis defined required theoretical concepts for the analytical part in the areas of customer segmentation, value and its perception contributing to the decision-making process tapping into works presented by Kotler et.al.. The theoretical concept of value proposition was connected with the knowledge of different business models, defining practical business model and value proposition canvases by Osterwalder et. al., used throughout the thesis for the capture and presentation of gained insights from internal and external factors. Lastly, to theoretically set-up the proposal of the digital product portfolio, terms like digital transformation and educational digital products were defined.

In the analytical part of the thesis, the Company XYZ was introduced in more detail offering more insight into the current business model and motivations of the current customers to form an initial value proposition of the business. Next, the plan of the company was broken down into different perspectives influencing the development of the value proposition. Technological trends in digital transformation of education looked at opportunities currently presented with the global initiatives. Conducted interviews with school management and the advisor of the Minister of Education for digital transformation offered more information about the current state of the schools' professional development from the roles of both the state and the schools' management. Customer analysis focused on the main stakeholder of the proposed value proposition – teachers. Their needs, tasks, pain points and preferences were identified with the help of a questionnaire research to form a customer profile.

The competitive space was analyzed by looking at 8 selected competitors, firstly identifying the most relevant for the Company XYZ using benchmarking evaluation of selected criteria based on the product portfolio and its presentation in the online environment. After the initial selection, the focus was on finding strengths and weaknesses of the 3 most relevant competitors for the use in the proposal. Lastly author took a closer look at Microsoft 365 portfolio of products to gain further insight into education topics, which could be offered by the proposed digital product portfolio. Implications of most important findings from all parts were summarized by a SWOT matrix.

The proposal part focused on solving the problem with the required development of the value proposition resulting from the planned change in business operation by the proposal of a complex set of products for the self-development activities of teachers. The new value proposition was formed for each of the products, contributing to the establishment of a new value proposition of Company XYZ. To help with the introduction of the customer segments targeted by the newly created portfolio, customer personas of 3 target segments of customers were created, followed by a proposal for the implementation of the proposed digital product portfolio into practice, also highlighting other options for further development of the business operation.

The evaluation of the economic aspects of the proposal showed, that the change is possible by mostly utilizing resources already included in the cost structure of the Company XYZ in its current state. The proposal was conducted by listing the relevant KPIs to monitor the performance of the implementation in the future.

The proposed changes will ensure the development of the value proposition tailored to the desired state of the Company XYZ.

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List of abbreviations

AR – Augmented reality

B2B – Business-to-customer

B2C - Business-to-business

BMC- Business model canvas

BYOD – Bring your own device

KPI – Key performance indicator

LMS – Learning management system

MVP – Minimal viable product

MoE – Ministry of Education

STEM – Science, technology, engineering, mathematics

VR - Virtual reality

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Annex I – List of questions for the school management

1. Could you please generally describe the usage of digital technology in your school?
2. How did Covid-19 affect the adoption of digital technology in your school? What is the degree of usage of digital technology after the pandemic?
3. Could you tell me the percentage of innovative teachers and the ones which returned to the old habits after the pandemic?
4. Which subjects in your school do you see the most innovative teachers in? Do you see any other determining factors that these teachers have in common?
5. Do the teachers exchange knowledge and new features, materials between themselves?
6. How does the professional development of teachers look like in your school? To what extent do you focus the education on the areas of digital technology in education?
7. What needs of the teachers do you see in areas of digital technology?
8. Do you support the development of your teachers financially?
9. Could you describe and evaluate the motivation of teachers in your school in terms of self-development of their digital skills? Do they go beyond the necessary "mandatory" education?
10. As a director of school, how do you support their initiative for self-development of their digital skills? Can you imagine supporting them also financially, either presently or in the future?

Annex II – List of questions for the advisor of the Minister of Education in Slovakia

1. What is the role of the digital technology in primary and secondary education?
2. Is it somehow taken into consideration in the context of the upcoming curriculum reform?
3. How does the professional development of teachers look like in Slovakia and what role does a state play in it?
4. How does the state react to emerging trends in digital transformation of school, like artificial intelligence?

5. What are the plans for the future of professional development of teachers from the perspective of the state?
6. Is there an initiative focused specifically on professional education of teachers?
7. What do you think of digital educational products aimed at self-development of digital skills of teachers?

Annex III – Customer analysis questionnaire

1st section – general information

1.Gender

- Male
- Female
- Other

2.Age

- 18-24
- 25-35
- 35-44
- 45-54
- 55-64
- 65+

3.I am

- Teacher
- School Digital Coordinator
- School management
- IT administrator

4.Type of school

- State
- Private
- Church

5.Type of school/educational unit

- Primary school
- Art School
- Gymnasium

- Secondary vocational school
- Leisure Centre

6.County where your school is located

7.District where your school is located

2nd section - Digital technologies and education

8.What subjects do you teach?

- Primary school level
- Slovak language and literature
- English language
- German
- French language
- Mathematics
- Biology
- Physics
- Chemistry
- History
- Civics
- Informatics
- Physical education
- I don't teach at my school

9.Do you use modern technologies in your classes?

Intended involvement of technology, for example in an interactive activity with pupils or project-based learning. Do not use an interactive whiteboard/projector to share your computer screen.

- Several times a week
- At least once a week
- At least once a month
- I don't use technology in class

10.Rate your current technical level in digital technologies for education

- Newcomer
- Intermediate

- Advanced
- Expert

11.How are you currently educating yourself in digital technologies for your practice?

- Exclusively through actualization/innovation education organized by the school
- Education in school and self-education
- Exclusively in the form of self-education
- I do not educate myself in the area of digital technologies

12.How often do you engage in digital-related professional development activities beyond the education provided by your school? *Professional development activities mean, for example, webinars, videos on the Internet or articles focused on modern technologies in education.*

- Often (several hours a week)
- Occasionally (a few hours per month)
- Rarely (several hours a year)
- Never

13.Which methods of learning about digital technologies do you currently prefer?

In your self-education and acquisition of new knowledge

Please select at most 3 options.

- Internet Articles
- Online video courses through educational portals
- Videos on platforms such as YouTube, Vimeo, etc.
- Share experiences with colleagues
- Live webinars
- Books
- Personal workshops/seminars
- E-books

14.What challenges do you encounter when learning new digital technologies and their functions?

15.How likely are you to invest your own financial resources in self-education about digital technologies in education if your school does not fund it?

- Improbable
- Unlikely

- Likely
- Very likely

16.What cloud solution does your school use?

If you are not able to answer, please check with your school. If you have multiple cloud solutions deployed at your school, choose the one you personally use the most in your teaching.

- Microsoft 365
- Google Classroom
- Apple Classroom
- We do not use any of these services

3rd section - Microsoft 365 technologies in education

I prepare my own materials for teaching using Microsoft 365 apps

	Fully agree	Mostly agree	Mostly disagree	Disagree	Cannot respond
I find OneNote to be a good addition to teaching at my school					
I actively use Microsoft Teams to teach my students					
I have enough localized materials to prepare my lessons with Microsoft 365 technologies					
I follow the latest news and features of Microsoft 365					
I'm learning about Microsoft 365 technologies					
I prepare my own materials for teaching using Microsoft 365 apps					

18.What Microsoft 365 tools do you use in your practice at least once a week?

- Word
- Excel
- PowerPoint
- OneDrive
- Sway
- Forms
- OneNote
- Teams
- Stream
- Outlook

- To Do
- Planner
- Copilot
- None of the above

19. What are the main barriers you encounter when integrating Microsoft 365 technologies into your classroom?

20. Of the following, which form of online learning focused on Microsoft 365 technologies do you prefer?

- Structured Online Courses
- Live webinars with available recording
- Separate educational materials (e-books, manuals)
- Combination

21. What Microsoft 365 products do you think should be addressed in the digital products from previous question?

Please select at most 3 options.

- Word
- Excel
- PowerPoint
- OneDrive
- Sway
- Forms
- OneNote
- Teams
- Stream
- To Do
- Planner
- Copilot

22. Can you think of specific Microsoft 365 features/use cases you'd like to learn more about?

4th section - Self-learning through digital products

23.Sort the following factors by importance when purchasing a self-learning digital product focused on Microsoft 365 technologies

1. The complexity of the product package (e.g., online course with manuals and sample materials)
2. Quality of workmanship
3. Practical scenarios for use directly in class
4. Offline download option
5. Certificate of completion of the course/webinar
6. Possibility to discuss/ask the lecturer
7. Localization in Slovak language
8. Price
9. Accessibility from anywhere

24.What other features or content would you consider valuable?

25.How much would you be willing to pay for a Microsoft 365 webinar?

Length of the webinar approx. 90 minutes with interpretation of functionalities based on the topic, associated with practical demonstrations and possibilities of involvement in teaching. The webinar also includes a part of the discussion with the opportunity to ask questions. It is possible to return to the webinar via a recording for participants.

- 0€
- 1-5€
- 6-10€
- 11-20€
- 21-30€
- More than 30€

26.How much would you be willing to pay for a Microsoft 365 e-book/guide?

Focus on a specific application (e.g., OneNote) with a range of about 20-40 pages. The content is a selection of functions and their explanation with regard to their use in the school environment with picture tutorials.

- 0€
- 1-5€
- 6-10€
- 11-20€
- 21-30€
- More than 30€

27.How much would you be willing to pay for a structured online course in Microsoft 365 technologies?

The course would discuss in depth the individual functionalities of the applications and their interconnection (e.g., combination of Teams, OneNote and Forms). Range of 25-30 videos up to 10 minutes in length.

- 0-10€
- 11-20€
- 21-40€
- 41-60€
- 61-80€
- More than 80€

28. Is it important for you to have sample downloadable materials for direct use in teaching?

For example, a sample activity for a lesson, a copy form, etc.?

- Yes
- Not

29.If you stated "Yes" in the previous question, please specify your idea of the downloadable materials, their form and scope.

30.Would you be interested in a monthly subscription model for access to professional online courses, regular webinars and downloadable materials?

- Yes
- Not
- Maybe

31.If you indicated "Yes" or "Maybe" in the previous question, please indicate in a number the price in Euros that you would be willing to pay monthly for the content

Annex IV – Partial results of the competition analysis

Company	Criteria	Reasoning	Value
365 Services	Portfolio	Focus on innovation education as a teacher-centric product. Only Microsoft Teams as part of the education portfolio. Online form (live webinar) Fixed schedule, no other forms of digital products.	2
	Web-page	Acceptable UI, detailed information about products, not updated regularly (old information about webinars), not very well optimized for mobile devices.	2
	Localization	Fully localized in Slovak language.	5
	Free materials	Free webinar focused on Microsoft Teams offered in February 2024. Recordings available on YouTube. Webinar recordings relevant (From 2023).	3

Company	Criteria	Reasoning	Value
Interaktívna škola	Portfolio	Focus on innovation education as a teacher-centric product. Multiple Microsoft 365 apps offered in one course – currently unavailable. Fixed-schedule, online form of education in the form of live webinars (with recordings available to customers). Other digital products include workshops and video tutorials offered, not for Microsoft technology.	3
	Web-page	Acceptable UI of the website. Detailed information about products. Updated regularly. Optimized for mobile devices.	3
	Localization	Fully localized in Slovak language.	5
	Free materials	Free video-tutorials and webinar recordings. Not focused on Microsoft 365	1

Company	Criteria	Reasoning	Value
UNIŠKOLA	Portfolio	Focus on innovation education as a teacher-centric product. Multiple Microsoft 365 apps offered in one course as well as specialized courses on Word, PowerPoint and Excel. Fixed-schedule, online form of education in the form of live webinars (with recordings available to customers).	3
	Web-page	Website feels cluttered, lot of text, not organized well. Information about the dates of the courses not available on the website. Optimized for mobile devices.	2
	Localization	Fully localized in Slovak language.	5
	Free materials	Free blog articles on the website, focus on Microsoft 365, 3 years old.	2

Company	Criteria	Reasoning	Value
Softimex Academy s.r.o	Portfolio	Focus on innovation education as a teacher-centric product. Multiple Microsoft 365 courses offered, various degrees of focus. Fixed-schedule (Dates and times not available on the website), online form of education in the form of live webinars (no information on the recordings).	3
	Web-page	Website feels cluttered, lot of text, hard to navigate and find information. Dates of the courses not available on the website. Optimized for mobile devices.	2
	Localization	Fully localized in Slovak language.	5
	Free materials	No free materials offered.	1

Company	Criteria	Reasoning	Value
Skillshare Inc.	Portfolio	Focus on online courses. Broad portfolio of courses from well-known foreign professionals, including Microsoft 365 courses, application deep-dives, specific topics including use in education. Flexible-schedule, courses accessible anytime. Online-form of education from pre-recorded videos.	5
	Web-page	Great UI design, user-centric, information easily accessible, updated regularly, very well optimized for mobile devices, app for mobile devices available.	5
	Localization	Localization in English, German, French, Portuguese or Spanish. No Slovak or Czech courses offered.	2
	Free materials	Free trial with access to the whole portfolio of courses for a limited time.	3

Company	Criteria	Reasoning	Value
GOPAS	Portfolio	Focus on online courses. Broad portfolio of courses including Microsoft 365 courses, application deep-dives, various levels of difficulty, not focused on specific use in education. Some courses are with a fixed-schedule, with e-learning options available for some courses. In person or online-form of education from either live webinars or pre-recorded videos.	3
	Web-page	Good UI design, user-centric, information easily accessible, updated regularly, very well optimized for mobile devices.	4
	Localization	Fully localized in Slovak language.	5
	Free materials	Free online course for Microsoft Office 2013, outdated as Support for Office 2013 ended on April 11, 2023 (78)	2

Company	Criteria	Reasoning	Value
Seduo	Portfolio	Focus on online courses. Broad portfolio of courses including Microsoft 365 courses, application deep-dives, various levels of difficulty, not focused on specific use in education. Online-form of education from pre-recorded videos.	3
	Web-page	Good UI design, user-centric, information easily accessible, updated regularly, very well optimized for mobile devices, app for mobile devices available.	5
	Localization	Fully localized in Slovak language.	5
	Free materials	Free courses available, potential use in education, no Microsoft 365 free materials	2

Company	Criteria	Reasoning	Value
Edusteps	Portfolio	Focus on innovation education and paid-webinars as a teacher-centric products. Some Microsoft apps offered in one course in combination with other services. Online form of education in the form of live webinars (with recordings available to customers).	4
	Web-page	Acceptable UI of the website. Detailed information about products. Updated regularly. Optimized for mobile devices.	3
	Localization	Fully localized in Slovak language.	5
	Free materials	Multiple free webinars and their recordings on YouTube, focus on education, various Microsoft 365 apps. Some downloadable materials (PDF worksheets)	4

Annex V – Calculation of the costs of the proposal

VAT in Slovakia – 20%

Microsoft 365 Business Premium (74) – Monthly price 20,6 EUR excl. VAT * 12 = 247,20 EUR excl. VAT/**296,64 EUR incl. VAT**

Adobe Creative Cloud (75) – Monthly price 67,01 EUR incl. VAT * 12 = **804,12 EUR incl. VAT**

Websupport .sk domain (76) – Yearly price **17,88 EUR incl. VAT**

Shoptet BASIC subscription (77) – Monthly price 13 EUR excl. VAT * 12 = 156,00 EUR excl. VAT/**187,20 EUR incl. VAT**