EVALUATING THE EFFECTIVENESS OF "CUSTOMER JOURNEY" TOOLS FOR SERVICE DESIGN IN ONLINE EDUCATION

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Purpose: The main purpose of this article is to describe an assessment of the effectiveness of the methods used in design thinking (DT) for service design. The analysis includes a tool that, due to the range of data used in service planning, is likely to provide reliable information for service optimization, namely the Customer Journey (CJ).

Design/methodology/approach: The key source of economic value is now considered innovation and the use of technological facilities to optimise ongoing economic processes. Such an approach enforces the need to develop methods that improve the efficiency of processes related to innovation generation. DT is considered to be one of them, in which, thanks to the methodology used, innovations are developed by design in an optimal way adapted to customers. One of the tools used in DT is CJ, which is a visualised description of the logical sequence of interactions between the customer and the service occurring at each stage of contact, allowing maximum customisation of designed products or services. Methods and tools are powerful insofar as they are subjected to evaluation, so it is important to evaluate the effectiveness of a given tool by those who use it. This article presents research on the evaluation of CJ effectiveness by the online education community, given the economic importance that the industry is increasingly gaining. Survey research was used because this type of research provides tools for analysing attitudes, views, and opinions and can be used for descriptive, explanatory, and exploratory purposes. The main research objective was to determine to what extent the DT and CJ methods were used and to evaluate their effectiveness in designing services in the remote education sector.

Findings: The survey showed that the surveyed group makes significant use of DT in the design of their services, in turn, among those who use DT, the vast majority are familiar with and use CJ. This may indicate, and the research confirms it, a high evaluation of CJ's effectiveness as a design tool. In addition, those who do not use CJ mainly cited lack of familiarity or lack of necessity (low complexity of the service being designed) as a reason, rather than a low effectiveness evaluation. These findings may indicate the high design potential of CJ and recommendations for its implementation.

Research limitations/implications: Regardless of the results obtained, it should be borne in mind that the high evaluation examined of the effectiveness of DT and CJ remains an opinion on the subject and not an objective fact, but this is a shortcoming that applies to all survey research. It should also be emphasised that the results obtained are limited in scope; as they

apply to a single industry, more general conclusions on the subject require extending the research to other sectors.

Practical implications: The research conducted in this article has a very practical dimension due to the subject itself, DT and CJ as a method of action and a concrete design tool are pragmatic in nature, so determining the evaluation of their effectiveness by practitioners, because such a group was surveyed, should be considered a measurable guideline for further implementation. In the present research, the scientific goal is combined with the pragmatic goal.

Social implications: Due to the fact that both DT and CJ are, by definition, aimed at maximising the matching of products or services to customers' needs, verification of their effectiveness makes it possible to assess their design potential and, in a broader perspective, to predict how much of the expected difficulties can be eliminated.

Originality/value: The most significant thing about the research conducted for this article is its contribution to filling the research gap on evaluating the effectiveness of methods and tools used in the service design process, as while DT is increasingly studied and described, there is still little research on the CJ, this study is a small contribution to changing that trend.

Keywords: Design Thinking, Customer Journey, Service Design, Online Education, Online Education Market.

Category of the paper: Research Paper.

1. Introduction

Attempting now to identify the most significant transformations characteristic of the business model in the 21st century, attention is drawn to the widespread use of information and communication technologies in economic life and the resulting optimisation every process taking place (Zygmuntowski, 2020; Śledziowska, Włoch, 2020). This is evident in the efforts to implement both the concepts of Industry 4.0 and Industry 5.0. However, we can consider permanent innovation as the real source of these transformations (Prokurat, 2016; Maik, 2016; Osika, 2017; Olko, 2017; Osika, 2019a), because according to the recognition of Paul Romer, the 2018 economic Nobel laureate, the most important among the innovations are those that serve to support the process of creating more ideas of the so-called meta-ideas because they are the ones that place their creators as leaders of economic development (Romer, 2008), thus forcing the need to recognise innovation as a foundation of economic value (Osika, 2019b; Boguszewicz-Kreft, 2021).

The planning of innovations and their effective implementation is associated with the need to develop strategies in which, so to speak, the use of specific methods of operation is inherent. The method of design thinking analysed in these considerations fits this need. Design thinking (DT) should be identified with a comprehensive approach to the design process, in which the needs and behaviour of the customer are placed at the centre of attention (Wojcichowska, 2020). The typical methodical action of DT implies the need to use specific tools that help identify problems, define them, generate ideas to solve them, and create prototypes to help evaluate

proposed solutions up to thorough testing. One such tool is the Customer Journey (CJ); it is used to analyse the customer's current experience during the entire contact with the brand, service, etc., and diagnose any weaknesses in the solution used. Often this analysis takes a visual form, in which case we speak of a customer journey map (Maik, 2017).

Based on the map, we can trace the customer's behaviour, the choices they made, along with the entire spectrum of emotions that accompanied the purchase or service, before, during, and after. What has so far remained in the realm of intuition for those involved in service design, thanks to tools such as CJ, can now be determined quite precisely. Due to the potential effectiveness of a tool like CJ in service design, it is proposed to determine to what extent it is used and how it is judged by those in the online education industry to design services that are maximally customised. This is justified because both in the COVID-19 pandemic and after, due to the educational opportunities uncovered during the massive lockdowns, the sector has been steadily growing its service market (Wasyluk, Kucner, Pacewicz, 2020; Świątek, 2022), projected to reach \$585.48 billion worldwide in 2027 (*Online Education Market,* 2022). From this perspective, the search for methods and tools to help ensure quality service appears to be fully justified. The second reason relates to the very limited amount of research that deals with evaluating the use of the CJ tool (Shiratori et al., 2021), the proposed snapshot may help to fill this gap to some extent.

2. Methods

The article proposes to conduct a survey due to the fact that this type of research provides excellent tools for analysing attitudes, views, and opinions and can be used for descriptive, explanatory, and exploratory purposes, thus seems the most appropriate method of observation. In addition, the validity of its use applies to such research projects, in which the units of analysis are individual people and their evaluation of specific methods of action (Gonzalez, 2005; Rubin, Babbie, 2009; Bhattacherjee, 2012). The main research problem that was adopted concerns the scope of use of the design thinking (DT) method and its tools, with particular emphasis on the Customer Journey (CJ) in the design of services in the online education sector, as effective instruments for improving the quality of services offered. The study posed the following research questions:

1. Do remote online education service providers use design thinking (DT) in designing their services?
2. Do remote online education service providers use Customer Journey (CJ) as a Design Thinking (DT) tool in designing their services?
3. How do providers of online education services assess the effectiveness of CJ in designing their services?

In relation to the questions formulated, the following hypotheses were adopted.

1. Online education service providers use Design Thinking (DT) in designing their services to a limited extent.
2. Online education service providers use Customer Journey (CJ) as a Design Thinking (DT) tool in designing their services to a limited extent.
3. Online education providers that develop their services using CJ are positive about its effectiveness in designing their services.

To verify the accepted hypotheses, a survey form consisting of five metric questions was constructed to determine age, sex, experience in the profession, form of service, and position held. The number of questions in the survey depended on the configuration chosen by the respondent; they were grouped into three sets allowing, according to the research questions, to determine whether the respondents use the DT method, whether they use the CJ tool and if so, how they evaluate it, and if not, why they never reached for this method and this tool. The sampling in the conducted survey was purposeful, the survey was addressed to the industry of online education. The research was conducted through Google Forms, which were sent in the form of a survey to a Facebook group associating entrepreneurs, trainers, trainers, coaches, and specialists in the education and distance learning sector. The group on the social network has 22,500 members. The research was of a pilot nature, therefore, only a portion of the study group was included, it was carried out in the form of an online survey, with a timeframe of October to December 2022.

3. Results

3.1. Theoretical framework

According to Jeanne Liedtek, the originator of the term "design thinking" is Peter Rowe, a professor of architecture and urban planning at Harvard's School of Design, who so titled his book published in 1987, but the meaning he gave to the term differs significantly from its current connotations, which focus on the very intellectual process needed to solve a problem, which is the basis of design activities (2015, p. 926). Understood in this way, design thinking (DT) was a response to the problem formulated, in a now-classic article by Richard Buchanan (1992), who pointed to the need to develop methods of thinking that would allow combining different fields and different disciplines from art through science to economy, as he wrote, it is about thinking „directed […] toward new integrations of signs, things, actions, and environments that address the concrete needs and values of human beings in diverse circumstances (Buchanan, 1992, p. 21). Such a method was one of the first to be formulated by David Kelley, a professor at Stanford University, who developed the main tenets of DT in

practise at IDEO, a company he founded in 2005 (Camacho, Kelley, 2016). Initially, the idea of design thinking focused mainly on product development, but over time it has expanded to include all forms of design, from services through strategy building to creating innovations of a social nature (Osika 2019b). Thomas Lockwood equates DT with a human-centred innovation process, emphasising "observation, collaboration, rapid learning, visualisation of ideas, rapid prototyping of concepts combined with concurrent business analysis" (2010, p. xi). Kelley identified five stages in the design thinking process, empathising or carefully identifying needs based on insightful observation of behaviours and the contexts in which those behaviours occur - this is the cognitive stage. The second stage is the definition of the problem or drawing conclusions from observations to determine the essence of the problem. Defining the problem allows the company to move on to the idea generation stage involving the creation of a wide range of potential solutions. The last two stages are prototype building, which is the materialisation of the idea allowing to initially assess its usefulness, and testing, which allows to finally verify the usefulness of the solution in the user environment (Brown, Wyatt 2010; Tichimmel, 2012; Brown, 2013; Sobota, Szewczykowski, 2014; Brodnicki, 2015; Chasanidou et al. 2015; Maik, 2016a; Wolniak, 2017; Jui -Che Tu, Li-Xia Liu, Kuan-Yi Wu, 2018; Pereira, Russo, 2018; Osika, 2019b; Wilkerson, Trellevik, 2021; Belen, 2022).

The Stanford DT model was one of the first nowadays several such models can be distinguished, simplifying the phases of the design process flow (Medina, Bravo, Kamachi, Xavier, 2012) or expanding their scope (Tichimmel, 2012; Brown, 2013) however, a common feature of all models is the structuring of intellectual work according to the psychological conditions of the creativity process. Due to the fact that DT is based on the analysis of the course of the thinking process during problem solving, it can be treated as a "theory" of creativity - because it creates an interpretation for understanding what it is, or as a method, because the described structure of the intellectual process can be used as a design guideline, applying specific steps for developing innovations (Maik, 2015). From this perspective, DT is the conscious application of principles that have been identified as typical of the creativity process and, in this sense, are general in nature, i.e., usable in solving all kinds of problem (Osika, 2019b). Therefore, we can describe design thinking "as solution-oriented, action-oriented, and needs based, and is associated with creative action, designer sensibility, technological feasibility, alternative solutions, emotional satisfaction, and constructive future results" (Barsalou, 2017, p. 102).

The implementation of the DT objectives requires the use of very specific tools, one of them being the Customer Journey (CJ). 'Customer journey (or alternately, customer journey maps) are visual representations of events or touchpoints depicted chronologically, often accompanied by emotional indicators' (Halvorsrud et al., 2016, p. 12; Shiratori et al., 2021, p. 314). CJ is a description of the logical sequence of interactions between the customer and the service that occur at each stage of contact (Kalbach, 2017; Wojciechowska, 2020; Tueanrat et al., 2021), referred to as touchpoint. "These touchpoints are sorted in the customer journey by time

and time, and by types. As a result, the company can map when, where and how interactions between them and the customer are, plus identify possible underestimated/overestimated by the business" (Shiratori et al., 2021, p. 314). Visualised CJ takes into account such categories as: interactions with the customer before, during, and after the service; impressions experienced, motivations, thoughts, and emotions, moments of positive experiences, but also negative ones ("Moments of Truth" and "Pain Points"). Such an analysis makes it possible to predict quite accurately how to design the service in marketing and sales activities, during the provision of the service, and control the impressions that remain after the service. It is these targeted observations that make it possible to optimise the quality of the service and maximise its fit with customers' needs, ensuring the effectiveness of design activities. Importantly, both before providing a service, the main aspects affecting its quality can be comprehensively identified, but CJ is also helpful in corrective actions, in improving existing services, and is therefore a universal tool (Halvorsrud et al., 2016; Kalbach, 2017; Rosenbaum et al., 2017: Wojciechowska, 2020; Shavitt, Barnes, 2020; Shiratori et al., 2021; Tueanrat et al., 2021; Maik, 2016b).

The aforementioned features of the customer journey can significantly contribute to the provision of quality services in the growing online education industry, so it seems important to determine to what extent this tool is currently being used and how its effectiveness is evaluated. The results of the survey on these aspects will be presented later in the article.

3.2. Analysis of survey results

86 people participated in the survey, of which 74.4% of the surveyed community were men and 25.6% women. The professional experience in remote teaching of the respondents was at different levels. The largest percentage were people whose experience ranged from 1 to 3 years (67.4%), followed by 20.9% of people who indicated professional experience in the range of 4 to 7 years. Only 11.6% of the respondents have more than 8 years of experience in distance learning. Most of these people (40.7%) provide e-learning services as subcontractors in cooperation with an educational organisation. A lower percentage of respondents (32.6%) provide these services as self-employed, and 26.7% of the respondents provide e-learning services as part of any form of employment in the field of education. The age of the respondents ranged from 19 to 65 years, occupying various positions. The largest number of people (23), which constitutes 31.5% of all respondents, are business owners, 16 people (21.9%) are specialists, 15 people (20.5%) are senior specialists, 8 people (9.6%) are directors, and 7 people are members of the board. The same number of people (7) manage small teams of up to 10 people, 3 people manage teams of more than 10 people, and the remaining respondents (4 people) are trainees or apprentices. The next charts show how the respondents answered, noting that some answers excluded all questions in the survey. Figure 1 shows the answers to the question regarding the design of services by respondents and the use of the operating methodology.

Do you use any operating method in designing your services?
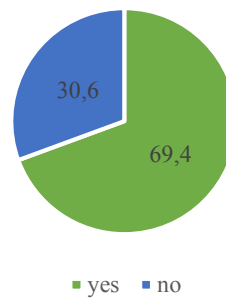
Figure 1. Use of the operating methodology in the design of services (%).

Source: Own study based on survey results.

This question was answered positively by 59 respondents, which constituted 69.4% of all respondents. Thus, these people could continue the study by deepening the subject of designing their services. The next question concerned the use of the Design Thinking method in designing their services, and 59 people answered them. The answers received show that 69.5% of respondents use the Design Thinking method in their work (figure 2).

Do you use the Design Thinking (DT) method in designing your services?
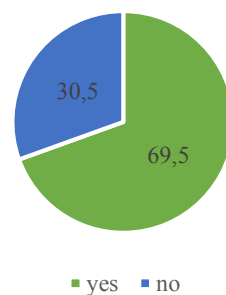
Figure 2. Using the Design Thinking (DT) method in designing your services (%).

Source: Own study based on survey results.

Figure 3. shows how the respondents answered the question about their experience in working with the Design Thinking method.

How much experience do you have in working with the design thinking method?
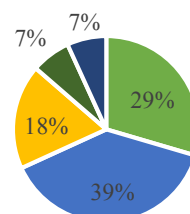
Figure 3. Experience in working with the Design Thinking method.

Source: Own study based on survey results.

The largest percentage of respondents were people whose experience in this field ranged from one year to two years. These people accounted for 39% of the respondents. Slightly less - 29.0% are people who have been working with the Design Thinking method for less than a year. Both respondents who indicated experience falling within the time range: 5-10 years and over 10 years account for 7% of all respondents, respectively.

How did you acquire know-how related to design thinking?
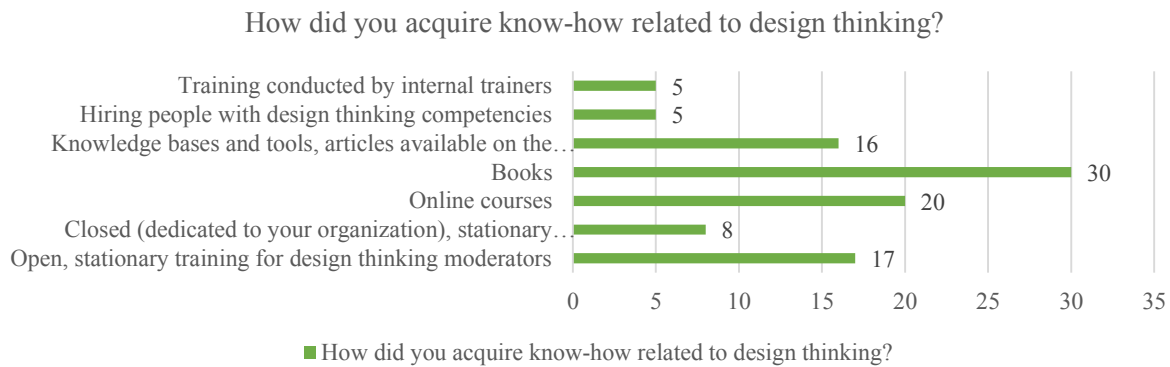
Figure 4. Methods of obtaining know-how related to Design Thinking.

Source: Own study based on survey results.

Figure 4. shows the methods of acquiring knowledge about Design Thinking. Respondents could select more than one of the proposed answers. Most of the people answered that they gained their knowledge mainly from books (30 people gave such an answer). Learning online courses was less popular (20 people marked this answer). The least interest in gaining knowledge about the Design Thinking method was training conducted by internal trainers (5 people) and employing people with Design Thinking competences (also 5 respondents). Respondents also indicated that they drew their knowledge from, among others, open, stationary trainings for Design Thinking moderators and knowledge base and tools, articles available on the Internet. The respondents also pointed to closed (dedicated to the organisation) training of the moderators (8 answers).

Respondents in an open question indicated what Design Thinking means to them. The most frequent answers that appeared were:

- a creative problem solving method,
- project management method,
- brainstorm,
- method for managing innovation,
- it is a project management process that is an innovation based on the knowledge and understanding of the client,
- method from Stanford University,
- searching for new services,
- approach to project implementation,
- uses elements in adult education,

- design thinking,
- service design,
- method of implementation of activities,
- the method of finding the right solutions,
- teamwork,
- project management method,
- methodology of managing business ventures.

Design thinking is a method of solving problems focused on innovation, based on teamwork. This method is a combination of mindset, an approach to developing solutions that values openness, continuous improvement, learning from others, researching the needs of recipients, with the structure of the process - these are specific steps and actions that we use to solve the problem.

The most frequently mentioned service design tools as part of the design thinking method are persona, experimenting and testing hypotheses, empathy map, moodboard, customer journey, snake, stakeholder map, prototype, customer experience path, trend map, and quick mission. This proves a great knowledge of tools in the field of service design.

The next questions concerned the Customer Experience Path as an element of the Design Thinking method.

Do you know the Customer Experience Path tool as part of the DT method?
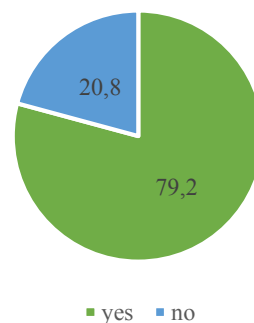
Figure 5. Knowledge of the Customer Experience Path tool as an element of the Design Thinking method (%).

Source: Own study based on survey results.

The above graph shows that slightly more than 3 4 of the respondents know the Customer Experience Path tool (79.2% of the respondents) and slightly less, as many as 73.1 respondents, indicate the use of this tool in designing their services (figure 6).

Do you use the Customer Journey tool in designing your services?
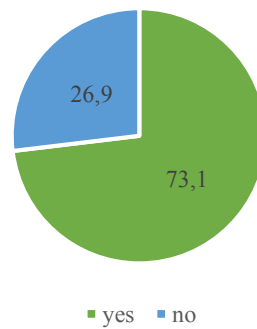
Figure 6. Using the Customer Journey (CJ) tool to design your services (%).

Source: Own study based on survey results.

Using the customer journey is a good practise. Organisations focused on working on the customer path and working on customer experience operate more effectively: they observe an increase in company revenues, an increase in customer satisfaction, and they also note cost optimisation. All these benefits are the result of an in-depth knowledge of the needs, problems, and all customer experiences. It is possible to improve the quality and efficiency of the services themselves, but also of service, communication, marketing, sales, and even internal processes in the company.

In the next part of the survey, respondents assessed the usefulness of the Customer Journey (CJ) tools at various stages of the service provision process. The assessment ranged from 1 to 5 o and concerned stages such as awareness of the need for purchase, familiarisation with the offer, selection of a specific product, finalisation of the purchase, and after-sales activities (figure 7).

How do you assess the usefulness of the Customer Journey tool at various stages of the service delivery process?
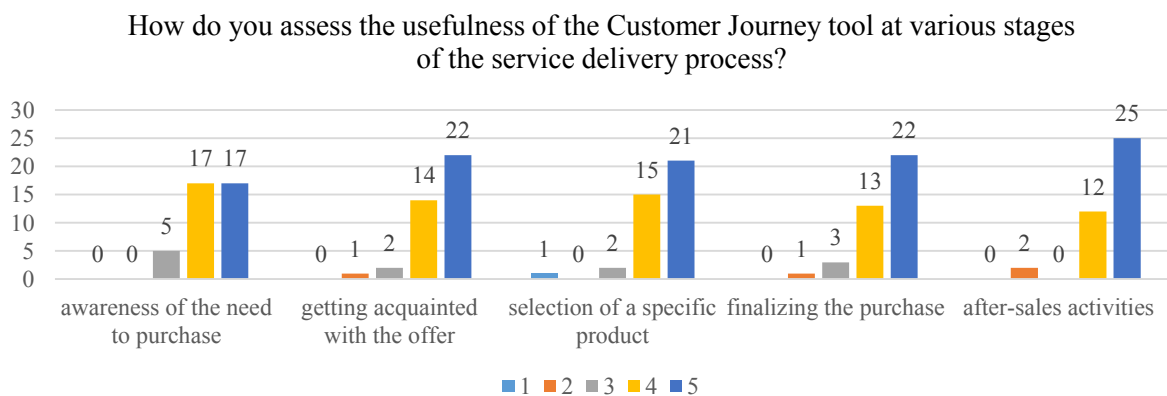

Figure 7. Assessment of the usefulness of the Customer Journey (CJ) tool in individual stages of the service provision process.

Source: Own study based on survey results.

The chart above shows that the usefulness of the Customer Journey (CJ) at all stages of the service provision process is rated very well by the respondents. 39 respondents answered this question. In the case of the first stage, awareness of the need to purchase, 17 people gave a very

good rating (score: 5) and the same number of people rated the usefulness of this tool at this stage at the level of 4. Only 5 people gave this tool a 3 rating. offer - up to 22 people gave the highest rating and 14 people indicated the usefulness of this tool at level 4. Two people rated this usefulness at level 3 and one at level 2. In the case of choosing a specific product, 21 people rated the usefulness of using the tool at the highest level. The 4 rating was assigned by 15 respondents. Only at this stage of the service provision process, one of the respondents gave a very poor rating of 1. In the case of the stage, finalising the purchase, 22 people gave a rating of 5, and 13 people gave a rating of 4. The lowest rating is 2 (one respondent). In the last stage, it can be seen that the Customer Journey is rated the best by the respondents (as many as 25 people gave a rating of 5). Two of the respondents rated the tool as 2.

In the chart below, we can see how the respondents answered the question about the purpose of developing the Customer Journey (figure 8). The respondents could select more than one answer to this question.

What is the purpose of creating a customer experience path?
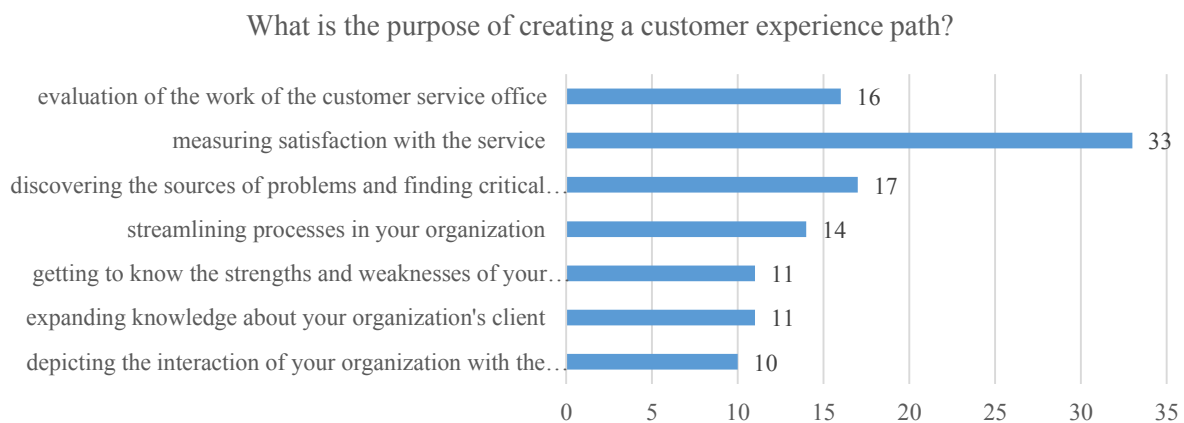
Figure 8. Purpose of developing the Customer Journey (%).

Source: Own study based on survey results.

The largest number of respondents indicated that the main purpose of developing the Customer Journey (CJ) is to measure satisfaction with the service (this answer was indicated by 33 people, which is 84.6% of all respondents). Another result - 17 people surveyed - indicated as one of the main goals discovering the sources of problems and finding critical points in the organisation's service path. The most frequently mentioned goals include evaluation of the work of the customer service office (16 people) and improvement of processes in the organisation (14 people). The least indicated goal was to illustrate the interaction of the organisation with the client / use (10 people - 25.6% of all respondents).

Is any department in our organization engaged in customer experience research?
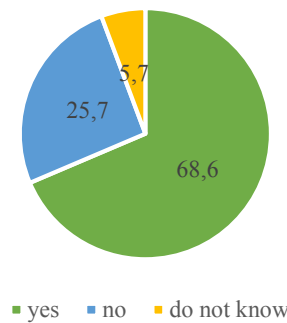

Figure 9. Customer experience research in the organisation (%).

Source: Own study based on survey results.

The chart above shows that only 68.6% of the respondents confirm that their organisations have departments that deal with customer experience research. 25.7% of the respondents indicated the lack of such departments, while 5.7% are unable to specify it. The pollsters also pointed to the sense of analysing the customer's behaviour before, during, and after the service is delivered, and they definitely outperform the opponents - 91.5% of the respondents (figure 10).

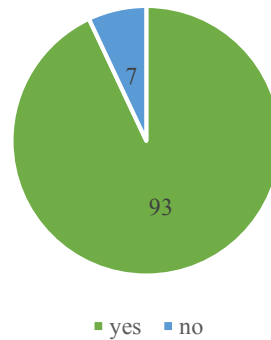Does it make sense for you to analyze customer behavior before, during and after service delivery?
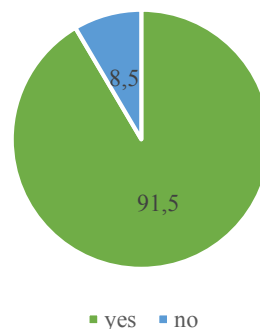
Figure 10. The need to analyse customer behaviour before, during, and after service delivery (%).

Source: Own study based on survey results.

Figure 11 shows the sense of analysing possible experiences/emotions that may accompany the client before, during, and after service delivery. 93% of the respondents indicate the sense of performing this type of analysis. Analysing the needs, thoughts, and motivations that may accompany the client before, during, and after the service is reasonable for 91.5% of the respondents (figure 12).

Does it make sense for you to analyze the possible experiences/emotions that may accompany the client before, during and after the service is delivered?

Figure 11. The need to analyse possible experiences/emotions that may accompany the client before, during and after service delivery (%).
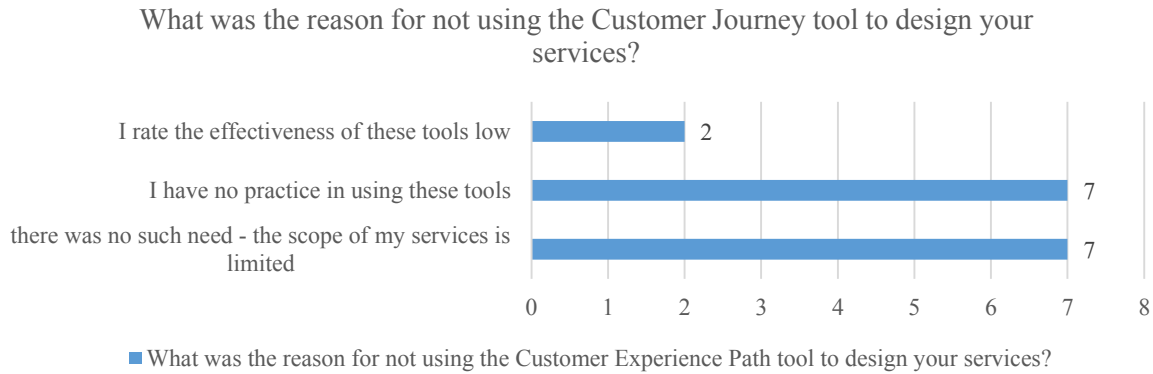
Source: Own study based on survey results.

Does it make sense for you to analyze the needs, thoughts, motivations that may accompany the client before, during and after the service is delivered?
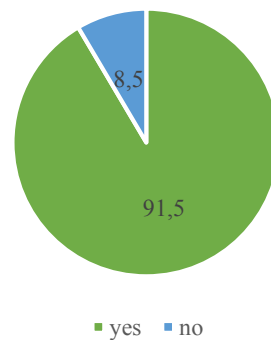
Figure 12. Meaningfulness of analysing the needs, thoughts, and motivations that may accompany the client before, during, and after service delivery (%).

Source: Own study based on survey results.

People who did not use the Customer Journey tool in their work to design their services were asked about the reason for their decisions. 7 respondents pointed to the lack of such a need as the scope of their services is limited. The same number of respondents indicated a lack of practise in using these tools. Only two people indicated a low assessment of the effectiveness of these tools (figure 13).

What was the reason for not using the Customer Journey tool to design your services?

Figure 13. Reason for not using the Customer Journey (CJ) tool for designing services.

Source: Own study based on survey results.

What is the reason for your low assessment of the effectiveness of the Customer Journey?
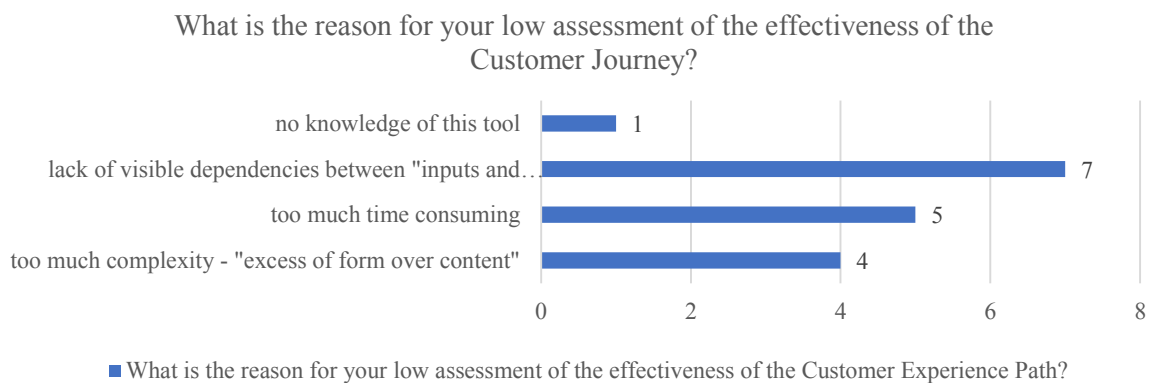
Figure 14. Reasons for the low effectiveness of the Customer Journey (CJ).

Source: Own study based on survey results.

The low assessment of the effectiveness of the CJ according to the respondents results from the lack of visible relationships between "inputs and results" based on their own experience (7 people), too much time-consuming (5 people), too complicated "form over substance" (4 respondents) and lack of contact with this tool (1 respondent).

4. Discussion

Recognition of innovation as a key source of economic value (Romer, 2008; Prokurat, 2016; Osika 2017; Olko 2017; Osika 2019a; Boguszewicz-Kreft, 2021), coupled with technological facilities to optimize ongoing economic processes (Zygmuntowski, 2020; Śledziowska, Włoch 2020), has necessitated the development of methods to improve the efficiency of processes related to innovation generation. Among such methods, finding increasing acceptance among practitioners, is DT based on a human-centred innovation process, in which observation, collaboration, rapid learning during design, prototyping of concepts combined with simultaneous business analysis are key (Buchanan, 1992; Lockwood, 2010; Brown, Wyatt,

2010; Tichimmel, 2012; Medina, Bravo, Kamachi, Xavier, 2012; Brown 2013; Sobota, Szewczykowski, 2014; Brodnicki, 2015; Chasanidou et al., 2015; Liedtek, 2015; Camacho, Kelley, 2016; Wolniak, 2017; Jui -Che Tu, Li-Xia Liu, Kuan-Yi Wu, 2018; Pereira, Russo, 2018; Osika 2019b; Wilkerson, Trellevik 2021; Belen 2022), all these activities are strongly supported by visualisation techniques. An important DT tool is the customer journey, which is precisely a visualised description of the logical sequence of interactions between the customer and the service occurring at each stage of contact (Kalbach, 2017; Halvorsrud et al., 2016; Rosenbaum et al., 2017; Wojciechowska, 2020; Shavitt, Barnes, 2020; Tueanrat et al., 2021; Shiratori et al., 2021; Tueanrat et al., 2021).

As with any method of operation, it is crucial to evaluate its usefulness, so its effectiveness should be continuously assessed. In the present discussion, opinions on the effectiveness of the DT method and the CJ tool of the online education industry have been studied, due to the fact that it is currently one of the growth industries. However, it seems that from the point of view of evaluating the usefulness of DT and CJ, it is worthwhile to conduct further research in other economic areas in order to be able to ultimately establish a more objective evaluation of both the DT method and the CJ tool.

5. Summary

The article describes the results of a survey conducted among on-line education service providers, and it was found to be the most appropriate research method. The main research problem concerned the extent of use of the Design Thinking method and its Customer Journey (CJ) tool in the design of services in the remote education sector, as effective instruments for improving the quality of services offered. The study formulated the following hypotheses:

1. Online education service providers use design thinking (DT) in designing their services to a limited extent.
2. Online education service providers use Customer Journey (CJ) as a Design Thinking (DT) tool to design their services to a limited extent.
3. On-line education service providers evaluate the effectiveness of CJ in designing their services

All three research hypotheses were positively verified, remote learning service providers use DT, 67.5% of respondents answered so, as can be seen, this is a significant percentage of the surveyed group. The respondents also confirmed the use of CJ, as many as 79.1% of them use this tool to design their services. On the basis of this, it can be concluded that CJ is the main design tool among those using DT. This is confirmed, also by the evaluation of the effectiveness of CJ, the usefulness of Customer Journey (CJ) at all stages of the service delivery process is rated very well by respondents, and the range of purposes for which respondents use CJ is also

wide. On the other hand, among those who do not use the tool, the predominant responses are about inexperience, or the lack of need to use complex design methods, so it is not the low efficiency rating that determines the non-use of DT. The final conclusion is that both DT and CJ are used in the service design process in the studied industry, so the positive efficiency rating can be considered reliable. More detailed information is included in the conclusions of the study.

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