



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Module: Design Thinking and Innovation

Module code: LCLM 6002

Lecturers: Rexon Nting

Assignment: Design Thinking and Innovation - through
Digital Transformation

Student Name: Carmen Fabiola Jimenez de Rivas

Student ID Number: 2325256

Table of Contents

1.0	<i>Introduction</i>	3
2.0	<i>Task 1: UK Market Opportunity Analysis</i>	4
2.1	Design Thinking and Innovation Context	4
2.1.1	Double Diamond Framework	4
2.1.2	Design Thinking vs Traditional Problem-Solving	5
2.2	User Pain Points and Digital Adoption Barriers	5
2.3	Market Gaps and Unmet Needs	6
2.4	Technological Enablers for UK SMEs	7
2.5	Key Opportunity Areas in the UK Market	7
2.6	Scalability and Sustainability of the Opportunities	8
2.7	Evaluation and Selection of the Most Viable Opportunity	10
3.0	<i>Task 2: New Venture Development Using Design Thinking</i>	10
3.1	Empathise: Understanding the Target Users	10
3.2	Define: Problem Statement and User Need	11
3.2.1	Causal Mapping Analysis	12
3.3	Ideate: Generating and Selecting Innovative Solutions	13
3.4	Prototype: Developing the Minimum Viable Product (MVP)	14
3.5	Test: User Validation and Feedback	15
3.6	Iteration and Refinement	16
4.0	<i>Venture Viability and Business Model</i>	17
4.1	Value Proposition and Target Market	17
4.2	Business and Revenue Model	17
4.3	Competitive Advantage	18
4.4	Scalability and Sustainability	19
5.0	<i>Conclusion</i>	20
	<i>References</i>	21

1.0 Introduction

Digital technologies have significantly changed the way small and medium-sized enterprises (SMEs) operate and connect with their customers. In the UK, digital transformation has created opportunities for businesses to improve productivity, reach new customers and offer products and services through different digital channels. However, many SMEs still experience difficulties when adopting new technologies, including limited access to appropriate information, guidance and tailored support (Department for Business and Trade, 2025). These challenges can also create opportunities for entrepreneurs to develop practical solutions that respond to the changing needs of businesses and consumers.

Design Thinking can support this process by providing a human-centred and iterative approach to innovation. Rather than developing a solution based only on assumptions, it focuses on understanding users and their needs, exploring the problem, developing ideas and learning through experimentation and testing (Rösch, Tiberius and Kraus, 2023). This approach is particularly useful when dealing with digital transformation, where businesses may have different needs, resources and levels of technological capability.

This portfolio uses Design Thinking to explore potential opportunities created by digital transformation in the UK market. The first section examines user pain points, digital adoption barriers, market gaps and technological enablers, as well as the scalability and sustainability of potential opportunities. Based on this analysis, the most viable opportunity will be selected. The second section applies the five stages of Design Thinking—Empathise, Define, Ideate, Prototype and Test—to develop a new venture concept. Finally, the proposed venture will be considered in terms of its value proposition, business model, competitive advantage and potential for sustainable growth.

2.0 Task 1: UK Market Opportunity Analysis

2.1 Design Thinking and Innovation Context

Design Thinking has become an important approach to innovation because it places users and their needs at the centre of the problem-solving process. Rather than focusing only on technological solutions, it encourages organisations to understand a problem from the user's perspective before developing and evaluating possible solutions. Rösch, Tiberius and Kraus (2023) describe Design Thinking as an iterative innovation process that combines user-centred principles with methods such as creative thinking, visualisation and experimentation.

Although different Design Thinking models exist, they generally share similar principles of understanding the problem, generating ideas and testing possible solutions (Rösch, Tiberius and Kraus, 2023). In the context of UK SMEs, this approach is particularly relevant because digital transformation involves more than simply introducing new technology. Businesses need solutions that respond to real customer and organisational needs while also being practical and commercially viable. Therefore, Design Thinking provides a useful framework for identifying market opportunities and developing solutions that can be refined through user feedback and experimentation. More recent research also highlights the relationship between Design Thinking and digital transformation, particularly the importance of considering how users interact with emerging technologies and how digital solutions influence user experiences (Fu et al., 2025).

2.1.1 Double Diamond Framework

Another framework that can be used alongside the five-stage Design Thinking process is the Double Diamond, which structures innovation through four stages: Discover, Define, Develop and Deliver. The framework highlights the movement between divergent thinking, where a problem or range of solutions is explored broadly, and convergent thinking, where information and ideas are narrowed to identify a clearer problem or solution (Design Council, 2024).

This framework is relevant to the present portfolio because the initial market analysis explores a broad range of digital adoption barriers experienced by UK SMEs before narrowing the problem to difficulties in selecting suitable technologies. The process then expands again during the Ideate stage, where several possible solutions are considered, before converging on the AI-assisted digital adoption platform for further prototyping and testing. Therefore, the Double Diamond complements the five-stage Design Thinking model by illustrating how exploration and selection occur throughout the innovation process.

2.1.2 Design Thinking vs Traditional Problem-Solving

Design Thinking differs from traditional, linear problem-solving approaches because traditional methods often begin with a clearly defined problem and focus on identifying logical and efficient solutions. In contrast, Design Thinking adopts an iterative and human-centred perspective that allows the problem itself to be explored and reframed through user understanding, experimentation and feedback (Rösch, Tiberius and Kraus, 2023).

In the context of UK SME digital transformation, this distinction is particularly relevant because technology adoption involves more than financial or technical considerations. SMEs may also experience limited time, internal resources, technical expertise and information overload, meaning that a solution that appears technically appropriate may not necessarily be suitable for the user or organisational context (Department for Business and Trade, 2025; OECD, 2021).

However, analytical thinking remains important when evaluating financial viability, technical feasibility and commercial performance. Therefore, Design Thinking and traditional problem-solving should not be treated as mutually exclusive approaches. Instead, they can complement each other: Design Thinking supports user-centred problem exploration and solution development, while analytical reasoning provides more structured evaluation and decision-making.

2.2 User Pain Points and Digital Adoption Barriers

Despite the growing importance of digital technology, UK SMEs continue to experience several difficulties when adopting and effectively using digital solutions. One of the main challenges is the financial cost involved. Research conducted for the Department for Business and Trade found that 32% of SMEs identified software costs as a barrier, with micro-businesses being particularly affected (Department for Business and Trade, 2025). Time and limited internal resources also create difficulties, as smaller businesses often need to balance researching, implementing and learning new technologies with their everyday business activities.

However, the challenges extend beyond financial limitations. SMEs can struggle with information overload, limited technical expertise and a lack of guidance tailored to their individual circumstances. Selecting an appropriate solution can therefore become difficult when businesses are faced with numerous providers but lack the knowledge or time to

compare them effectively. Implementation can create further problems when new technologies do not integrate easily with existing systems or when adequate training and technical support are unavailable (Department for Business and Trade, 2025).

From a Design Thinking perspective, these barriers suggest that the problem is not simply a lack of access to technology. SMEs require solutions that are affordable, easy to understand, compatible with existing processes and supported by appropriate guidance. This creates an opportunity to develop digital services around the actual capabilities and limitations of smaller businesses rather than expecting SMEs to adapt to complex technology.

This challenge is not limited to the UK, as smaller firms generally face greater difficulties than larger organisations when adopting more advanced digital technologies, particularly where financial resources and technical capabilities are limited (OECD, 2021).

2.3 Market Gaps and Unmet Needs

The barriers experienced by UK SMEs indicate a market gap between the availability of digital technologies and the practical support businesses need to adopt them successfully. Although many digital products are available, SMEs may still find it difficult to identify which solutions are appropriate for their size, activities and existing systems. The Department for Business and Trade (2025) found that SMEs valued tailored resources, independent comparisons, expert advice and examples of how similar businesses had successfully adopted technology. Businesses also expressed a need for clearer pricing and more personalised support during purchasing and implementation.

This suggests that simply increasing the number of digital products available may not address the underlying problem. A more significant unmet need exists around making digital adoption simpler, more transparent and relevant to individual businesses. For example, an SME with limited technical knowledge may benefit more from a service that helps identify, compare and implement suitable digital tools than from being presented with another standalone software product. The need for trusted and unbiased guidance is particularly important because businesses may struggle to evaluate supplier claims and can become overwhelmed by the range of available options.

From an entrepreneurial perspective, this gap creates opportunities for solutions that combine digital technology with personalised guidance, simplified decision-making and ongoing

support. Addressing these unmet needs could reduce uncertainty for SMEs while helping them adopt technology that is better aligned with their operational requirements and capacity.

2.4 Technological Enablers for UK SMEs

Digital technologies can provide SMEs with practical ways to overcome some of the limitations identified in the previous sections. Technologies such as cloud computing, e-commerce platforms, mobile applications and digitally enabled business systems allow smaller organisations to access capabilities that previously required greater financial and technical resources. Research into SME digital transformation highlights the role of technologies including cloud services, digital platforms, data-driven systems and other internet-enabled solutions in supporting business operations and creating new opportunities for value creation (Philbin, Viswanathan and Telukdarie, 2022).

Cloud-based solutions are particularly relevant for SMEs because services can be accessed online without requiring businesses to maintain extensive internal IT infrastructure. Similarly, integrated digital platforms can bring together functions such as online ordering, payments, customer communication and business management. Artificial intelligence and automation may provide further opportunities by simplifying repetitive activities, analysing information and helping businesses make more informed decisions. However, the value of these technologies depends on whether they remain accessible and manageable for users with different levels of digital capability.

From a Design Thinking perspective, technology should therefore act as an enabler rather than determine the solution itself. The technologies selected should respond directly to the user needs identified earlier, particularly affordability, simplicity, compatibility and access to appropriate support. This creates opportunities to combine existing technologies into user-centred services designed specifically around the needs and limitations of UK SMEs.

Digitalisation can also improve SME resilience by giving resource-constrained businesses access to digital capabilities without necessarily requiring large upfront investments. Cloud-based and other digital services can therefore provide SMEs with greater flexibility when experimenting with new business practices and technologies (OECD, 2024).

2.5 Key Opportunity Areas in the UK Market

The combination of changing consumer behaviour and the digital adoption challenges faced by SMEs creates several opportunities for innovation in the UK market. One significant area

is the development of simplified digital commerce solutions for SMEs. Small businesses increasingly need to manage online sales, customer communication, payments and other digital activities, but using several separate systems can increase complexity. An integrated and affordable platform could therefore help smaller businesses establish or improve their digital presence while reducing the technical knowledge required. The continuing importance of online commerce is reflected in UK consumer behaviour, with online transactions accounting for 50.5% of total card spending in September 2025, compared with 43.7% in September 2019 (Office for National Statistics, 2026).

A second opportunity exists in digital adoption support and technology selection services. Previous analysis identified that SMEs can struggle to compare technologies, understand supplier claims and determine which products are appropriate for their individual needs. A digital service combining independent comparisons, personalised recommendations and implementation guidance could reduce this uncertainty. This opportunity is particularly relevant as the UK government continues to recognise capability, cost and awareness as important barriers to SME digital adoption (Department for Business and Trade, 2026).

A third opportunity is the development of local e-commerce and delivery solutions, particularly for independent retailers and businesses serving suburban or rural communities. A platform connecting local businesses with consumers through online ordering, digital payments and coordinated local delivery could allow smaller retailers to compete beyond their physical location while offering consumers greater convenience. Such a solution could also integrate existing digital technologies rather than requiring individual businesses to develop their own e-commerce and delivery infrastructure.

These opportunities demonstrate that innovation does not necessarily require the creation of entirely new technologies. Greater value may be created by combining existing digital capabilities in ways that are more accessible, affordable and relevant to the needs of UK SMEs.

Digital transformation can also support the internationalisation of smaller businesses by enabling them to use digital channels to access customers and business opportunities beyond their traditional local markets (Edgar, Spencer and Fachira, 2022).

2.6 Scalability and Sustainability of the Opportunities

The three opportunity areas identified above have different levels of scalability and long-term sustainability. A simplified digital commerce platform has strong potential to scale because a

cloud-based service could support increasing numbers of SMEs without requiring a separate physical infrastructure for each customer. Standard functions such as online ordering, payments and customer communication could be offered to many businesses, while additional features could be introduced as their needs develop. This model could also generate recurring revenue through affordable subscription plans. However, its long-term viability would depend on maintaining ease of use, integration with existing systems and competitive pricing, as these factors are particularly important for SMEs when selecting digital technologies (Department for Business and Trade, 2025).

Digital adoption and technology selection services also have significant scalability potential, particularly if personalised recommendations and guidance can be delivered through a digital platform. This opportunity directly responds to the need for independent comparisons, tailored information and expert support identified among UK SMEs (Department for Business and Trade, 2025). Nevertheless, providing highly personalised human support could increase operating costs as the number of customers grows. A combination of automated guidance and human assistance could therefore provide a more scalable approach.

Local e-commerce and delivery solutions could generate economic and social value by helping independent retailers reach more customers and improving access to products in suburban and rural communities. The sustainability of local delivery models also requires consideration of how different last-mile delivery options are perceived and used by consumers. Environmental, economic and social sustainability can influence consumer acceptance of delivery methods alongside factors such as convenience and perceived cost (Klein and Popp, 2022). Furthermore, last-mile e-commerce delivery remains a complex area involving operational, technological and sustainability challenges, which can make logistics-intensive business models more difficult to scale efficiently (Kumar and Chidambara, 2024).

However, this opportunity may be more difficult to scale nationally because delivery requires local logistics, drivers and coordination. Its environmental sustainability would also depend on factors such as delivery distances; vehicle use and the efficiency of route planning. Overall, digital-first solutions appear easier to scale than logistics-intensive models, although each opportunity offers different forms of value and growth potential.

2.7 Evaluation and Selection of the Most Viable Opportunity

After evaluating the three opportunity areas, a digital adoption and technology selection service for UK SMEs appears to offer the strongest potential for further development. Although simplified e-commerce platforms can be highly scalable, this is already a competitive area and introducing another platform may not directly address the difficulties SMEs experience when deciding which technologies are appropriate for their business. Local e-commerce and delivery services could provide economic and social benefits, particularly in rural and suburban communities, but their dependence on physical logistics may make expansion more complex and costly.

In comparison, a digital adoption support service responds more directly to the user pain points and market gaps identified in the previous analysis. SMEs require more than access to digital products; they also need support in understanding, comparing and implementing technologies that match their individual capabilities and business requirements. This makes the opportunity particularly relevant from a Design Thinking perspective, as the potential service would be developed around an identified user problem rather than around a predetermined technology.

The opportunity also offers potential for scalability through a digital-first model, while human support could be incorporated where more complex assistance is required. For these reasons, it provides a suitable basis for new venture development. The next stage applies the Design Thinking process to understand SME users more deeply, define the specific problem and progressively develop and test an appropriate solution.

3.0 Task 2: New Venture Development Using Design Thinking

3.1 Empathise: Understanding the Target Users

The Empathise stage focuses on developing a deeper understanding of users before deciding what solution should be created. This is particularly important in entrepreneurship because assumptions about customers may result in products that do not respond to their actual needs. Carella et al. (2023) highlight human-centredness as an important principle of Design Thinking, where understanding users and their experiences can help entrepreneurs recognise the real problem that needs to be addressed.

For the proposed venture, the primary users are owners and managers of UK SMEs who need to adopt digital technologies but may have limited time, technical knowledge or internal IT resources. Their objective is not necessarily to adopt the newest technology, but to find

solutions that are suitable for their business, affordable and relatively simple to implement. Existing research provides useful insights into their behaviour. SMEs use different sources when considering technology, including online information, recommendations and supplier advice, but can have trouble evaluating the available choices. They particularly value human interaction, trusted recommendations and guidance that reflects the specific circumstances of their business (Department for Business and Trade, 2025).

An evidence-based empathy profile therefore suggests a user who thinks about whether a technology is worth the investment, feels uncertain when faced with complex choices, does research and compares possible solutions, and needs clear, trustworthy and personalised guidance. Importantly, this profile is based on secondary research rather than assumed primary interviews. Understanding these experiences suggests that the venture should minimise complexity rather than introduce another complicated digital system. The service should therefore be designed around simplicity, transparency and user confidence, while allowing SMEs to retain control over their final technology decisions.

3.2 Define: Problem Statement and User Need

The Define stage brings together the insights gained during the Empathise stage to develop a clearer understanding of the problem that needs to be addressed. This is important because the problem initially identified may not fully reflect what users actually experience. Carella et al. (2023) highlight creative reframing as an important principle of Design Thinking, as it allows a problem to be viewed from different perspectives before potential solutions are developed. Based on the previous analysis, the main issue for UK SMEs is not simply a lack of digital technology, as many different tools and services are already available. The challenge is being able to identify which technologies are suitable for their particular business needs, available resources and level of technical knowledge. Therefore, the user need can be reframed around making technology selection less complex and uncertain, while giving SMEs enough information and confidence to make their own decisions.

Problem Statement: UK SME owners and managers with limited time and technical expertise need a simple and trustworthy way to identify and evaluate digital technologies that match their business requirements, as the current selection process can be complex, time-consuming and difficult to navigate.

This problem can be further explored through the following Design Thinking question:

How might we help UK SMEs identify and evaluate suitable digital technologies in a simple, trustworthy and personalised way without requiring extensive technical knowledge?

This question provides a clear direction for the Ideate stage while remaining open enough to explore different possible solutions before deciding which concept should be developed further.

3.2.1 Causal Mapping Analysis

To systematically analyse the digital adoption barriers among UK SMEs, a causal mapping analysis was developed (Figure 1). Rather than viewing digital adoption as a single issue, the map shows how several barriers can interact throughout the technology decision-making process.

Financial constraints (A), time scarcity and limited internal resources (B), and limited technical expertise (C) can contribute to information overload and uncertainty (D), difficulty evaluating supplier claims and pricing (E), and reduced ability to independently compare available options (F). These conditions can result in delayed technology adoption (G) or the selection and implementation of unsuitable or incompatible tools (H). In turn, ineffective digital adoption may reduce the value obtained from digital investment (I) and create potential waste of financial and organisational resources (J) (Department for Business and Trade, 2025; OECD, 2021). Therefore, the causal map suggests that the core challenge is not simply access to technology but reducing the complexity and uncertainty SMEs experience when evaluating and selecting appropriate digital solutions.

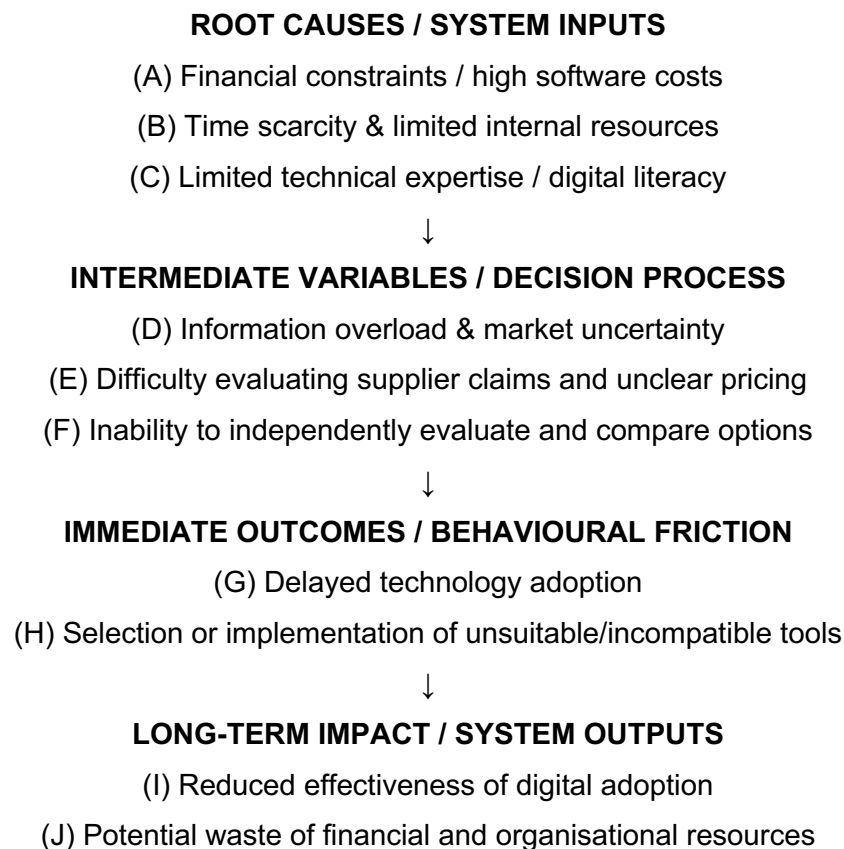


Figure 1. Causal Mapping Analysis of SME Digital Adoption Barriers

3.3 Ideate: Generating and Selecting Innovative Solutions

The Ideate stage moves from understanding the problem towards exploring different ways in which it could be addressed. At this point, it is important not to focus immediately on one solution, as considering different alternatives can lead to more innovative outcomes. Carella et al. (2023) highlight the importance of divergent and convergent thinking within Design Thinking. Divergent thinking supports the generation of different possibilities, while convergent thinking helps to evaluate these ideas and identify those with greater potential. Their study also found that generating and selecting ideas was one of the main abilities associated with this Design Thinking principle.

A brainstorming activity was then used to generate a range of possible responses to the How Might We question. This activity encouraged the exploration of different solution possibilities

before any single option was selected. The ideas generated were subsequently reviewed to identify which option offered the strongest combination of personalisation, accessibility and scalability.

Based on the problem defined in the previous stage, three possible solutions were considered. The first is an online comparison platform where SMEs could compare digital tools according to factors such as business size, sector, budget and specific requirements. The second is a digital technology advisory service combining online resources with access to human experts who could provide more personalised guidance. The third is an AI-assisted digital adoption platform that would ask users a series of simple questions about their business and use this information to recommend suitable technologies, compare available options and provide a suggested adoption roadmap.

When comparing the three ideas, the AI-assisted platform offers the strongest potential because it combines personalisation with the scalability of a digital service. However, relying entirely on automated recommendations could reduce trust among users who prefer human guidance. For this reason, the selected concept would combine AI-assisted recommendations with optional human expert support. The platform would aim to simplify technology selection rather than make decisions on behalf of the business, allowing SME owners and managers to remain in control of the final choice.

This concept responds directly to the *How Might We* question by offering a personalised and accessible way for SMEs to understand and evaluate digital technologies without requiring extensive technical knowledge. It will therefore be taken forward to the Prototype stage, where its essential features can be developed as a minimum viable product (MVP).

The connection between Design Thinking and entrepreneurship is also important because Design Thinking practices can support entrepreneurial decision-making when developing opportunities under conditions of uncertainty (Klenner, Gemser and Karpen, 2022).

3.4 Prototype: Developing the Minimum Viable Product (MVP)

The Prototype stage transforms the selected idea into a simple version that users can interact with and evaluate. At this stage, the purpose is not to develop a complete product, but to create something that allows the main assumptions behind the concept to be explored before significant resources are invested. You (2022) explain that prototyping can support learning throughout the development process, allowing ideas to be tested, adjusted and improved through iteration.

For the proposed venture, the initial MVP would be a clickable web-based prototype of the AI-assisted digital adoption platform. Users would begin by completing a short digital needs assessment covering factors such as business sector, number of employees, current technology, budget, digital confidence and the main problem they want to solve. Based on these answers, the prototype would provide personalised recommendations for suitable types of technology and allow users to compare a small selection of options according to factors such as cost, functionality and level of complexity.

The MVP would focus only on the features needed to test the main value proposition. These would include the digital needs assessment, personalised recommendations, a simple technology comparison tool, an adoption roadmap and the option to request support from a human expert. More advanced functions, such as direct integration with technology providers, automated purchasing and advanced business analytics, would not be included at this stage.

Keeping the prototype simple would allow the venture to examine whether SME users understand the recommendations, find the platform easy to navigate and trust the guidance provided before investing in full development. The prototype would therefore act as a learning tool rather than a finished product, with user feedback informing changes to both the service and its features before further development.

3.5 Test: User Validation and Feedback

The Test stage would be used to understand how potential users respond to the proposed MVP and whether it addresses the needs identified earlier. Testing is an important part of Design Thinking because feedback can reveal problems and assumptions that may not be identified during the initial development of a solution. Rösch, Tiberius and Kraus (2023) explain that testing is an iterative process in which prototypes are evaluated and adjusted using feedback, allowing new knowledge to be incorporated into the solution.

For the proposed platform, the prototype would initially be tested with a small group of UK SME owners and managers from different sectors and with different levels of digital confidence. Participants would be asked to complete the digital needs assessment, review the personalised technology recommendations, compare different options and follow the suggested adoption roadmap. This would help determine whether the overall process is clear and easy to use.

Feedback would focus on key areas such as ease of use, clarity of recommendations, relevance of the suggested technologies and level of trust in the AI-assisted guidance. Participants would also be asked whether access to a human expert would increase their

confidence when making a final decision. Basic measures such as task completion, time taken to complete the assessment and user satisfaction could also be used to identify areas that require improvement.

The results would then be used to make changes to the prototype before further testing. For example, if users find the recommendations too technical, the language could be simplified, while concerns about trust could lead to clearer explanations of why particular technologies have been recommended. This approach would allow the venture to improve the service based on actual user responses rather than assumptions.

3.6 Iteration and Refinement

The Design Thinking process does not necessarily end after the first round of testing. Instead, the feedback collected from users can be used to refine the prototype and reconsider earlier decisions where necessary. Rösch, Tiberius and Kraus (2023) describe Design Thinking as an iterative process in which learning from testing can be incorporated into further development. This allows a solution to gradually become better aligned with user needs rather than remaining based on the assumptions made at the beginning of the process.

For the proposed venture, feedback from SME owners and managers would be reviewed to identify recurring issues and areas for improvement. For example, if users find the technology recommendations difficult to understand, the information could be simplified and presented more clearly. If users show limited trust in AI-generated recommendations, greater transparency could be introduced by explaining why particular technologies have been suggested and providing easier access to human expert support.

The revised prototype would then be tested again with users to determine whether these changes improve their experience. If significant problems remain, the venture may need to return to the Define or Ideate stages and reconsider part of the solution. This continuous process of testing, learning and refinement would help develop the initial MVP into a service that better reflects the actual needs and expectations of UK SMEs.

4.0 Venture Viability and Business Model

4.1 Value Proposition and Target Market

A clear value proposition should explain how a venture responds to the needs of its customers and why the proposed service is valuable to them. Mills (2024) connects Design Thinking with the development of value propositions by emphasising the importance of understanding customers and using what is learned about them to shape the business model. This approach is particularly relevant to the proposed venture because its value should come from solving the difficulties experienced by SMEs rather than simply offering another digital product.

The primary target market would be micro and small businesses in the UK that want to adopt or improve their use of digital technologies but have limited technical knowledge, time or internal IT resources. The service could be particularly useful for business owners and managers who are responsible for technology decisions alongside their normal business activities. Rather than requiring them to research and compare a large number of digital products independently, the platform would provide guidance based on their business characteristics, needs and available budget.

The venture's main value proposition would therefore be to help UK SMEs choose and adopt suitable digital technologies with greater confidence through simple, personalised AI-assisted guidance and optional human support. The value offered is not the use of AI itself, but the ability to reduce complexity, save time and make technology decisions easier to understand. Keeping human support available would also provide an alternative for users who need additional reassurance before making important technology decisions.

4.2 Business and Revenue Model

The proposed venture would operate as a digital business, allowing the service to reach SMEs without depending on a physical location. Digital entrepreneurship creates opportunities for businesses to use emerging technologies, including artificial intelligence, to develop new services and revenue streams (Muñoz, 2023). In this case, the platform would use AI-assisted guidance as part of the service while maintaining access to human expertise when additional support is required.

The venture would initially use a freemium and subscription-based model. The free version would provide a basic digital needs assessment and a limited number of technology recommendations, allowing SMEs to experience the service before making a financial

commitment. A paid subscription would provide more detailed technology comparisons, personalised adoption roadmaps and ongoing recommendations as the digital needs of the business change.

An additional source of revenue could come from optional consultations with technology experts, either charged separately or included within a higher subscription tier. This combination would provide different levels of service according to the needs and budgets of individual SMEs. Subscription revenue could also provide a more consistent source of income as the customer base develops. However, the proposed pricing and subscription structure would need to be tested with potential customers to determine their willingness to pay and ensure that the service remains affordable for micro and small businesses.

4.3 Competitive Advantage

The competitive advantage of the proposed venture would not depend only on the use of artificial intelligence, as similar technologies can be adopted by other businesses. Instead, its differentiation would come from combining technology with a service specifically designed around the needs and limitations of UK SMEs. Existing digital transformation approaches can be difficult for smaller businesses to apply because they are often designed for larger organisations and may require considerable planning, technical expertise and investment (Sirinanda and Balota, 2024).

The proposed platform would respond to this issue through simplicity, personalisation and flexibility. Rather than presenting SMEs with a large amount of technical information, the service would use their business needs, budget and level of digital capability to provide relevant recommendations and an understandable adoption roadmap. This approach reflects research suggesting that digital transformation support for SMEs should be adaptable and flexible enough to fit different business models and operational contexts.

A further point of differentiation would be the combination of AI-assisted guidance and optional human expert support. Automated recommendations would make the service easier to scale, while access to human support could provide additional reassurance for businesses facing more complex technology decisions. Together with an SME-specific focus and simple technology comparisons, this hybrid approach could create a more accessible experience than relying entirely on automated tools or traditional consultancy services.

However, this advantage should not be considered permanent. Competitors could introduce similar AI-based services, meaning that the venture would need to continue learning from users, improving its recommendations and maintaining the relevance and quality of its technology information. Its longer-term advantage would therefore depend on the quality of the overall customer experience rather than AI alone.

4.4 Scalability and Sustainability

The proposed venture has potential for scalability because its core service would be delivered through a digital platform. As the number of users increases, AI-assisted assessments and recommendations could support additional SMEs without requiring the same increase in human resources. Human expert support could remain available for more complex cases, while routine guidance would be delivered digitally. This model could initially focus on UK micro and small businesses and later expand to additional SME sectors or geographical markets if the concept proves successful.

Scalability should also be considered alongside sustainability. Philbin, Viswanathan and Telukdarie (2022) explain that digital transformation can support SME sustainability and competitiveness, while examining sustainable development through economic, environmental and social dimensions. Applying these dimensions provides a broader way of evaluating the long-term potential of the proposed venture.

From an economic perspective, subscription-based revenue could provide recurring income, while digital delivery could help control the cost of supporting a growing customer base. From a social perspective, the platform could make digital guidance more accessible to smaller businesses that may not have internal IT expertise or the resources to use traditional consultancy services. Environmentally, operating primarily as a digital service could reduce the need for physical premises and travel associated with face-to-face consultancy. However, it would be inappropriate to assume that the platform has no environmental impact, as digital technologies and AI also depend on computing infrastructure and energy consumption.

Overall, the venture has the potential to scale while creating economic and social value, but sustainable growth would depend on maintaining affordable pricing, reliable recommendations and an appropriate balance between automated and human support. These factors would need to be monitored as the platform and its customer base develop.

5.0 Conclusion

This portfolio has shown that the continued digital transformation of the UK market creates important opportunities for innovation and new venture development, particularly among SMEs. Although digital technologies are increasingly available, the analysis identified that smaller businesses can still face challenges related to cost, technical knowledge, information overload and the difficulty of selecting solutions that are suitable for their individual needs. These challenges suggest that innovation opportunities exist not only in developing new technologies, but also in making existing digital solutions easier for SMEs to understand, select and adopt.

After evaluating several opportunity areas, digital adoption and technology selection support was identified as the most viable option for further development. Applying the Design Thinking process helped move this opportunity from a broad market problem towards a more focused venture concept. Through the stages of Empathise, Define, Ideate, Prototype and Test, the proposed solution developed into an AI-assisted digital adoption platform that would provide personalised technology recommendations, simple comparisons and an adoption roadmap, while maintaining optional access to human expert support.

The proposed venture also demonstrates potential commercial viability through a freemium and subscription model, with additional revenue opportunities from expert consultations. Its digital-first structure provides opportunities for scalability, while its focus on simplicity, personalisation and human support could help differentiate it from more complex or fully automated alternatives. However, the long-term success of the venture would depend on continued user testing, reliable recommendations, affordable pricing and ongoing refinement as SME needs and digital technologies evolve.

Overall, the application of Design Thinking demonstrates how a user-centred and iterative approach can turn an identified digital market gap into a more focused and potentially viable business concept. Rather than assuming that technology itself provides the solution, the proposed venture places the needs and capabilities of UK SMEs at the centre of its development.

References

- Carella, G. et al. (2023) 'Design thinking for entrepreneurship: An explorative inquiry into its practical contributions', **The Design Journal**, 26(1), pp. 7–31. doi: 10.1080/14606925.2022.2144565.
- Design Council (2024) The Double Diamond. Available at: Design Council website (Accessed: 21 August 2026).
- Department for Business and Trade (2025) **Understanding technology adoption among UK SMEs**. Available at: <https://www.gov.uk/government/publications/understanding-technology-adoption-among-uk-smes> (Accessed: 18 August 2026).
- Department for Business and Trade (2026) **SME Digital Adoption Taskforce: 2026 update**. Available at: GOV.UK – SME Digital Adoption Taskforce: 2026 update (Accessed: 18 August 2026).
- Edgar, T.E., Spencer, I. and Fachira, I. (2022) 'Developing an internationalisation process through digital transformation: Evidence in British MSMEs', in **Proceedings of the 6th International Conference on E-Commerce, E-Business and E-Government**, pp. 70–76.
- Fu, Z. et al. (2025) **Digital Futures in Human-Computer Interaction: Design Thinking for Digital Transformation**. 1st edn. Boca Raton: Taylor & Francis Group. doi: 10.1201/9781032693606.
- Klein, P. and Popp, B. (2022) 'Last-mile delivery methods in E-commerce: Does perceived sustainability matter for consumer acceptance and usage?', **Sustainability**, 14(24), p. 16437.
- Klenner, N.F., Gemser, G. and Karpen, I.O. (2022) 'Entrepreneurial ways of designing and designerly ways of entrepreneuring: Exploring the relationship between design thinking and effectuation theory', **Journal of Product Innovation Management**, 39(1), pp. 66–94.

- Kumar, I. and Chidambara (2024) 'A systematic literature review and bibliometric analysis of last-mile E-commerce delivery in urban areas', **Urban, Planning and Transport Research**, 12(1). doi: 10.1080/21650020.2024.2357577.
- Mills, A. (2024) **Designing the Human Business: Leveraging Design Thinking to Craft Powerful and Innovative Business Models**. 1st edn. Birmingham: Packt Publishing.
- Muñoz, J.M. (ed.) (2023) **Digital Entrepreneurship and the Global Economy**. New York: Routledge. doi: 10.4324/9781003194798.
- OECD (2021) **The Digital Transformation of SMEs**. OECD Studies on SMEs and Entrepreneurship. Paris: OECD Publishing. doi: 10.1787/bdb9256a-en.
- OECD (2024) 'SME Digitalisation to manage shocks and transitions: 2024 OECD D4SME survey', **OECD SME and Entrepreneurship Papers**, No. 62. Paris: OECD Publishing. doi: 10.1787/eb4ec9ac-en.
- Office for National Statistics (2026) **Consumer card spending, e-commerce and digital trade insights in the UK: 2019 to 2025**. Available at: <https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/articles/consumercardspendingecommerceanddigitaltradeinsightsintheuk/2019to2025> (Accessed: 19 August 2026).
- Philbin, S., Viswanathan, R. and Telukdarie, A. (2022) 'Understanding how digital transformation can enable SMEs to achieve sustainable development: A systematic literature review', **Small Business International Review**, 6(1), pp. e473–e473.
- Rösch, N., Tiberius, V. and Kraus, S. (2023) 'Design thinking for innovation: Context factors, process, and outcomes', **European Journal of Innovation Management**, 26(7), pp. 160–176.
- Sirinanda, M.D. and Balota, J.E. (2024) 'Practical digital transformation framework for small and medium-sized enterprises in the UK', in **2024 IEEE International Conference on e-Business Engineering (ICEBE)**, pp. 168–174. IEEE.

- You, X. (2022) 'Applying design thinking for business model innovation', *Journal of Innovation and Entrepreneurship*, 11(1), p. 59.