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Design-led Innovation Readiness: priming micro SMEs for strategic innovation

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This research explores innovation-readiness in the context of design-led innovation in micro, small and medium-sized enterprises (MSMEs). It builds on work undertaken and published by the lead author's team in 2018. This reported on the team's rapid design-led intervention for supporting organisations to establish innovation readiness. Since its first delivery, the approach has been deployed with over 60 separate enterprises across three different countries; UK, USA, and Armenia. It has evolved to be delivered through different modes; one-to-one, one-to-many, face-to-face and on-line. Further, it has been developed in such a way that postgraduate students, or 'novice facilitators', can take an active role in its delivery. Facilitation teams have invariably included at least one facilitator with a design background. Participants were enterprise founders or leaders. In this study a mixed-methods approach is used, combining thematic analysis of participant surveys, co-reflection and semi-structured interviews with participants and facilitators. Findings suggest that this design-led approach delivers different benefits from typical business innovation readiness assessment and audit tools. It involves a form of co-creative, speculative knowledge venturing that supports enterprises in not only understanding their innovation readiness, but also in creating and mapping strategic innovation opportunities, thereby priming them to engage in design-led innovation practices. This co-creation of knowledge leads to both new knowledge about the innovation readiness of the enterprise and new innovation opportunities. It is revealed as a fundamental, catalytic aspect of the programme irrespective of mode, or location, of delivery.

This paper will be of interest to researchers and practitioners who are seeking to develop innovation support programmes working with SMEs and MSMEs.

Key words: co-created knowledge, design facilitation, Design-led Innovation, Innovation-readiness, Micro-SME

Introduction

Innovation readiness refers to the extent to which an organisation can sustain its ability to innovate (Zerfass, 2005). Typically, innovation readiness evaluations, or audits, support organisations in understanding the complex interaction of multiple factors that affect their ability to innovate. They are generally grounded in business theories. The work by Gribbin et al. (2018) sets out why innovation is so important, but also so hard, within SMEs highlighting the need to remain competitive as a main driver for innovation, and scarcity of time and resource as main barriers. The business-theory-based approaches are good at helping organisations to identify where barriers and challenges to innovation exist within an organisation, but stop-short of supporting organisations to work out how to overcome these barriers. A design-led approach, offers the promise of both revealing and understanding those barriers and challenges and also of putting in place creative plans to address them. It was on this premise, that the rapid design-led intervention that is the subject of this study, was developed and deployed.

The intervention, which employs Design Thinking approaches (multi-stakeholder perspectives, abductive reasoning, rapid-ideation, visualisation etc.) is known as Get Ready to Innovate (GRTI) and was initially developed in 2017 as part of the Creative Fuse North East

(CFNE) programme. CFNE is a 'multi-disciplinary, multi stakeholder action research project focused on the strength, diversity and nuanced nature of the North East's creative, digital and IT sector'. CFNE is exploring and supporting the innovation capability and capacity that exists in the fusion of creative, technical and business knowledge and know-how. It is conducting 'new research that seeks to understand the conditions for creativity and interdisciplinary fusion' (Creative Fuse North East, 2022). CFNE is jointly funded by the UK's Arts and Humanities Research Council (AHRC), Arts Council England (ACE) and the European Regional Development Fund (ERDF). This blended funding, although extremely complex in terms of bidding and administration, provides an elegant model for action research as the ERDF component provides for innovation support to be delivered to SMEs who would not normally be able to afford to access commercial support. A stipulation of the ERDF funding was that this form of business support should be delivered within a 12-hour engagement. This factor governed the design of the GRTI programme.

CFNE has, thus far, been delivered through two active phases; phase 1, 2016–2019 and phase 2, 2020–2022. In phase 1, GRTI was delivered entirely face-to-face and through two different modes, a one-to-one mode (one team of design facilitators (DFs) with one

organisation) and one-to-many in which post graduate students, acting as 'novice facilitators' (Lampitt Adey et al., 2019) were supported by expert DFs to run workshops with multiple businesses simultaneously. In CFNE phase 2, which was initially delivered under COVID-19 pandemic lock-down restrictions, the intervention was modified to be delivered online (Hemstock et al., 2022). Further, a refined variant of the one-to-many intervention was developed.

GRTI has also been developed from the original model to be deployed in support of enterprise education in Armenia (Bailey et al, 2022) where it is known as 'GRTIA' and through an online approach with BIPOC (black, Indigenous, People of Colour) Founders in the USA through a programme known as EGK Starters (EGK Starters, 2021).

The majority of enterprises supported through the various iterations of GRTI fall into the EU's micro SME classification (i.e. they have fewer than 10 employees and a turnover below €2 million) and these micro-enterprises are the focus of this study.

Background

In the UK in 2021, micro SMEs accounted for 95% of all businesses, 21% of employment but only 14% of turnover (Hutton and Ward, 2021). Whilst small size is often seen as a benefit when it comes to agility in responding to market conditions, 'micro business owners are often

forced to focus on managing and meeting short term needs' (SME Loans, 2021) which represents a significant impediment to strategic innovation leading to growth, increased productivity, and profitability.

Innovation, the realisation of ideas as positive change, requires a willingness not just to embrace change, but to make change. It is risky because the pursuit of change increases the chances of failure and without a growth mindset, one that recognises failure as learning in disguise, failure can be devastating, demoralising and terminal to an enterprise, particularly a very small one.

A number of innovation readiness tools exist that aid businesses in auditing their capacity and capability to innovate at an organisational level (Biloslavo, 2005; Dworkin and Spiegel, 2015). Such tools tend to rely on surveys as they are administratively efficient (a particular benefit in the context of MSMEs) and draw on readily available data regarding past or current practices. Whilst these methods provide organisations with an overview of their readiness to innovate, and can provide the basis for advice on next steps based on a generalisation of results from other surveys of other organisations, they fail to provide an enterprise-specific roadmap for successful innovation.

As noted by Gribbin et al. (2018) the closest parallel to innovation readiness studies in the design field are those relating to

design and innovation maturity models (Danish Design Centre, 2015; Gardien and Gisling, 2013 and Essmann and Du Preez, 2009). These focus on organisational design innovation processes and capacity rather than identifying opportunities to undertake innovation within the constraints of an existing enterprise. These models are typically built on evidence gathered from larger organisations (Gulari and Fremantle, 2015) where time and resource limitations are not the same as those faced by MSMEs. Innovation is seen as simultaneously crucial but risky within these constraints.

The literature surrounding Design Thinking fails to offer a single, accepted definition of the practice. However, the authors of this paper suggest that the approach has something to offer in mitigating risks associated with the pursuit of innovation and that this could be useful in the context of time and resource-poor MSMEs.

A helpful way of considering Design Thinking in relation to this work is offered by Martin (2009) who described Design Thinking as a 'dynamic interplay' that balances 'analytic mastery and intuitive originality' focussing on the cognitive skills required to achieve this balance in pursuit of 'valid' innovation. Additionally, Nielsen, Christensen and Stovang (2021) present Design Thinking as 'consisting of five principles: 1) user/customer focus and emphasis, 2) problem framing

and definition), 3) visualisation, 4) experimentation and prototyping), and 5) diversity and co-creation'.

Wrigley (2017) describes design-led innovation as a process of business transformation that employs a union of design and strategy. Bucolo and Matthews (2011) suggest that design-led innovation bridges the gap between the application of design to create products, systems and services, and value-creation for organisations. They propose that design-led innovation is a 'process of creating a sustainable competitive advantage, by radically changing the customer value proposition'. This is a useful frame through which to consider how an organisation might employ a design-led approach in order to achieve sustainable business success through strategic innovation, i.e. innovations in corporate strategies regarding which products, systems, services to develop, which sectors or markets to compete in, routes to market, business models etc. Again, the emphasis of the literature in this area is very much oriented to large, corporate organisations.

In the case of this work, the authors employ a design-led approach to look both inwards to the enterprise, considering the motivations and drivers of the individuals involved, and outwards to the external stakeholders, including, but not limited to, customers. MSMEs tend not to think about what they are doing in terms of the language of strategic innovation or innovation-readiness. What they are interested in is 'what should we be

doing now, next, and beyond that, in order to ensure that we can fulfil the purpose and realise the future vision that we have for our enterprise?’

The GRTI Intervention

GRTI takes advantage of Martin’s (2009) ‘dynamic interplay’ mindset by analysing past and present practices and creatively speculating about the future. The approach adopted by the researchers as they deliver GRTI represents a synthesis of analytic and intuitive thinking regarding the situation and specific concerns of the participating MSME.

In their systematic review of design facilitation literature, Mosely, Markauskaite and Wrigley (2021) suggest that:

Design facilitation is a highly complex, integrative, emergent practice that is innately linked to design process knowledge and understanding.

Through the evolution of the dynamic and close-quarters setting and structure of GRTI, DFs rely heavily on this design process knowledge and understanding to tailor each session to the specific and emerging circumstances of the participating enterprise.

Gribbin et al. (2018) set out a model for the twelve-hour programme structured around four sessions ‘inspired by the philosophy of design sprints and informed by previous research in the domains of both management and design’. The

programme took advantage of the design sprint’s use of Design Thinking tools used in a restricted time period rapidly to co-create concepts in response to a given situation and relied on management studies to identify resources that need to be in place to support the innovation endeavour as a foundation of future strategy.

As originally designed, the programme involved an initial 2-hour ‘triage’ session, two separate 4-hour design sprints and a concluding 2-hour reflection and planning session. This original model was populated with a number of established methods proposed to be used ‘as tools for aiding understanding’ (see Figure 1). GRTI has now been adopted for use in a number of different programmes and using different delivery modes, but the fundamental principles and basic structure behind the approach have remained unchanged.

Subsequent iterative development of the programme has seen it tailored to suit the particular circumstances of delivery. Figure 2, provides a summary of how the structure has evolved from the first iteration to the latest. Very early feedback from participants suggested that the 4-hour sessions were too mentally exhausting (the DFs also felt this way) and so the twelve hours has now been divided equally between four sessions. Independent of the strictures of the funding, the researchers now plan to spend an hour in follow-up, six-months after delivery of the final session. This is in

part to assist with data-gathering regarding longer-term impact, but also in response to early findings which suggest that sustainment of the impact of GRTI in terms of working practices requires some further intervention.

The programme

Table 1 identifies the basic details of the various GRTI programmes which form the basis of this study. It identifies programmes that were delivered in both 1–2–1 and 1-2-many formats, those delivered face-to-face, or online. The GRTIA and EGK programmes were not restricted to 12-hours as they had different funders, but nonetheless, they were time-bounded and followed the same structural format as the CFNE variants thus making them relevant to this study.

Over the course of each delivery the programme has been developed through an iterative process of continuous design (Jones, 1983; Tonkinwise, 2004) whereby the researchers (in this case, also the designers of the programme and DFs who deliver it) have taken responsibility for its continual evaluation and refinement. In each manifestation, the DFs have devised and employed what Agguire, Agudelo and Romm (2017) call ‘contextually designed facilitation tools’; bespoke materials to support the flow of each session. These are large (physical or virtual) templates upon which the topics of discussion are drawn-out in real-time.

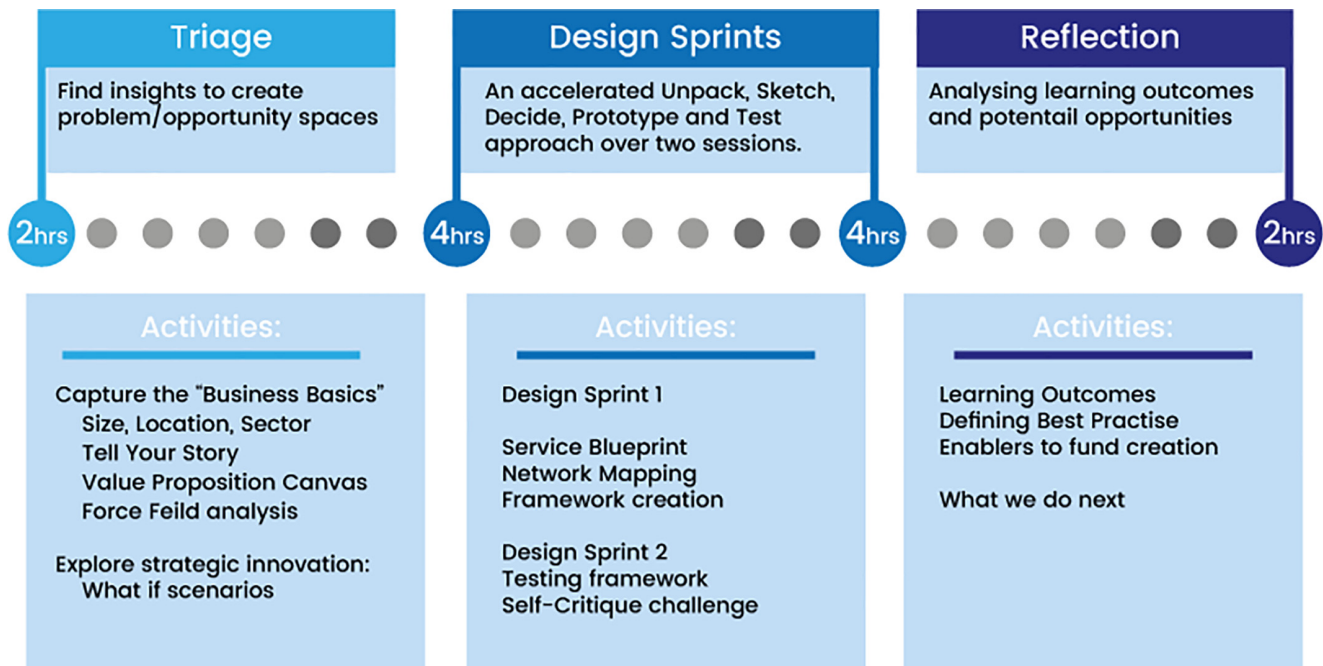


Figure 1. Visualisation of the innovation assessment method (Gribbin et al., 2018). [Color figure can be viewed at wileyonlinelibrary.com]

Session 1: Triage. The triage session is designed with several goals in mind. Firstly, it is intended to capture business basics or ‘business as usual’ by looking at the past and present: size, shape, location of the business; product or service offered; nature of the customer-base; business-model; inter-dependencies; typical ‘innovation journey’; and so forth. (In order that the facilitators can approach the programme with ‘fresh eyes’, only minimal pre-session preparation is undertaken.) Secondly, it seeks to get beneath the skin of the operation to understand the values and principles of the founders and leaders of the enterprise. This is achieved by exploring the backgrounds of the individuals; the original motivations behind founding the enterprise; the nature of

relationships with customers and the wider stakeholder network etc. Thirdly, it serves to orientate the participants to the design-led intervention that the DFs use. This involves a combination of questioning, framing and design listening ‘a combined reflective practice that happens between the designer and the participants and their situation’ which supports new opportunity identification and creation by ‘bringing about new meanings, ideas and narratives’ (Carrion-Weiss, Bailey and Spencer, 2021). Increasingly, homework is given to participants at the end of the session. It serves the purpose of focussing participant reflection between sessions in order to offer a precis of the key issues and a focal point for matters around

which to ideate at the start of the second session. The specific nature of homework tasks is dependent on how the Triage session has gone and is determined dynamically by the facilitators during the session.

(Note: An example of the continuous design approach is evident in the Phase 2 of the CFNE delivery where it was important to adapt the Triage session to consider ‘business as unusual’ – how the business adapted to the circumstances of the COVID-19 pandemic and whether this might be used as a platform for further adaptation and innovation.)

Session 2: Modelling opportunities. The goal of the second session is to move towards a future-oriented perspective. Its focus is

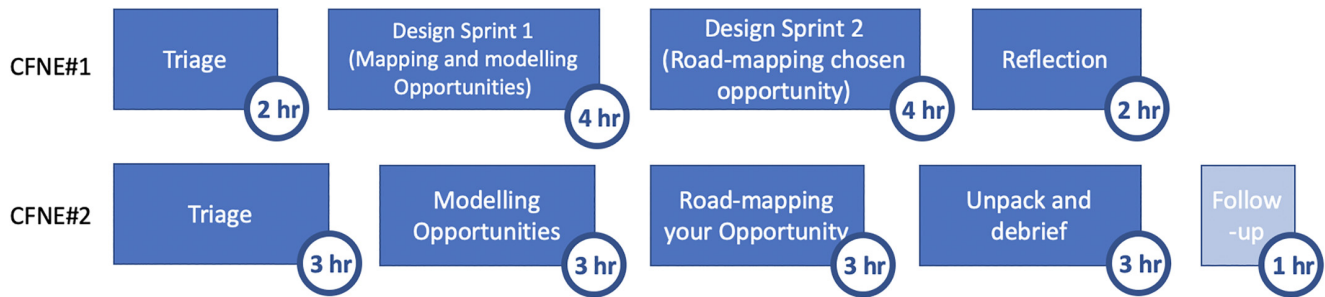


Figure 2. Visualisation of first and latest programme structures (authors). [Color figure can be viewed at wileyonlinelibrary.com]

Table 1 GRTI delivery models and modes

Programme	Location	Delivery model	Delivery mode	Number of enterprises	Duration	Participant ref code
CFNE#1	North East UK	1-2-1	In person face-to-face	14	Typically, within 1 month	A
CFNE#1	North East UK	1-2-many	In person face-to-face	12	3 weeks	B
GRTIA	Yerevan, Armenia	1-2-many	In person face-to-face	24	Over 6 months	C
EGK Starters	Birmingham, AL, USA	1-2-1	Online	4	Within 1 month	D
CFNE#2	North East UK	1-2-1	Online	8	Within 1 month	E
CFNE#2	North East UK	1-2-1	In person face-to-face	2	Within 1 month	F
CFNE#2	North East UK	1-2-many	In person face-to-face	4	Within 1 month	G

framing and reframing current situations and opportunities within the enterprise to reveal opportunities leading to rapid ideation. Whilst in the original programme design the intention was to use pre-existing tools, such as personas, service blueprints or user journey maps to support this, the DFs soon learned that taking a prescriptive approach was restrictive and did not allow them to work dynamically with the enterprise to focus on the emerging opportunities or concerns particular to their context and values which had been revealed through the Triage session. To this end, this session is now approached with a more open template designed

to capture the essential aspects of these emerging opportunities. The session is informed by, and builds from, the homework which is given to participants at the end of the Triage. This means that the session is free-flowing, driven in the main by speculative ‘what-if...?’ questioning with the DFs having a range of methods and tools (such as those mentioned above – or variants of them) available to call on should the situation dictate. Homework is given at the end of this session to help ensure that the focus of the third session remains pertinent after a period of post-session reflection. Its presentation at the start of the next

session acts as a sense-check on progress.

Session 3: Road-mapping your opportunity. Road-mapping starts to make the future opportunities feel more achievable as it is all about trying to understand what needs to happen in order for a preferred future to become a reality. The emphasis is on trying to assist the enterprise in identifying what needs to be in place in order for them to be ready to exploit the innovation opportunity that they, together with the researchers, have collaboratively created. In this session their readiness for design-led innovation is being

explored and revealed as their business basics (the data one might typically associate with an innovation audit) are applied to speculative futures. This synthetic act allows participants to fuse their existing knowledge about their enterprise with creative challenges and prompts from the DFs. Here, templates are used to help provide structure and make explicit the aims and objectives of the innovation; the enablers (and barriers); and the steps and stages involved in realising the opportunity.

Session 4: Unpack and debrief. By taking participants back through the material of the previous three sessions, the last of the formal sessions provides the opportunity to reflect on what has been learned from exploring the enterprise's innovation readiness through the act of seeking to identify innovation opportunities. In addition, this session provides the space and structure to work through what will be required to make these opportunities a reality. This is valuable as it allows participants to distil the new knowledge that they have collaboratively created with the DFs into plans for short, medium and long-term action. Reflection is structured around predetermined questions designed to aid participants in considering the potential impact of the programme on their future action.

Research Methodology

The methodology employed in this study is that of action research as this study relates to practice, the practice of design facilitation (Aguirre

et al., 2017). The role of the researcher in the context of this study is interesting and owes something to the practice of co-generative action research in which Greenwood and Levin (2007) position the researcher as 'outsider' working co-generatively with 'insiders' (problem-owners, stakeholders in a situation under consideration). Aguirre et al. (2017) suggest that in design facilitation, designers 'act as both participants and facilitators' who 'foster participant interactions that generate emergent material'. This is how it is in the case of GRTI, and so the researchers who have undertaken this study, were both the designers of the GRTI programme, and participant design facilitators in its delivery. For readability, the term 'design facilitator' (DF) will be used throughout the remainder of this document to describe that multiple role. In the case of each workshop session of the GRTI programme, two or more DFs have worked together with each enterprise. One of the DFs has acted as scribe, visually modelling data and emergent ideas as the sessions have progressed. Such joint-working mitigates against researcher bias as well as establishing an important collaborative dynamic within the sessions.

Data has been gathered through a combination of participant surveys (conducted within the weeks following the end of the final session), analysis of workshop visualisations, field-notes (general observations about the sessions made by the facilitators during and after delivery), and semi-

structured interviews with participants and DFs. The primary source of participant data is drawn from the reflective component of the workshop series where participants are asked to reflect on their expectations of the programme; whether and how they benefited from the programme; what was missing from it; short, mid and long-term business impacts; impacts on working practices and approaches; and their degree of confidence in using creative thinking approaches to address business situations in the future.

An inductive thematic analysis has been employed to enable the authors to identify recurrent, emergent themes amongst each participant group. These emerging themes have then been explored through co-reflection. Whilst the researchers have reflected on all of the different iterations of GRTI, it is only from the CFNE programmes that data has been used for thematic analysis.

Our research here responds to the question: what are the distinct characteristics required to support readiness for design-led innovation in Micro SMEs?

Findings

Findings are presented in two sections relating firstly to participants' reflections on the programme. Second, DFs' reflections on the approach as a whole are considered.

Participants' reflections

Five clear themes emerge from analysis of participants' reflections on

the positive aspects of the programme that they valued. These are presented as desirable attributes in order of their prominence within the data, with the first being the most prominent and so forth. Each is considered separately below.

Reflection. The importance of reflection to the participants is evident in three ways. Firstly, there is almost universal evidence in the data that participants valued, above everything else, a dedicated opportunity to work ‘on’ the enterprise rather than ‘in’ or ‘for’ it. “I realised a valuable level of introspection, that I’d normally feel I was too busy, or ‘knew where I was going’, to really engage in” (A4).

They recognised that stopping to reflect about what they have been doing, why they are doing it and what they plan to do next feels “indulgent to take half days off to explore non-commercial, upstream parts of the business [but this] investment has paid for itself” (E2). Secondly, many valued the honesty of reflection; the “sense of holding a mirror up” (E2) and discussing what they see. The third value attributed to reflection was with regard to reflecting on things that have not gone well and learning to recognise that “‘failing’ is a positive step in the development process” (E6).

Confidence. Also evident in many participants’ reflections is the attribute of confidence. Participants felt that the way in which the DFs of GRTI respected their ideas and

‘generously’ contributed to them validated the purpose of their enterprise, the specific innovation that they were pursuing or even them as entrepreneurial individuals; “at the start I had imposter syndrome and I don’t anymore, [I] feel confident in it” (E7). “I can value my worth as an experienced practitioner” (A3).

In the design domain, we often refer to Creative Confidence ‘the ability to come up with new ideas and the courage to try them out’ (Kelley and Kelley, 2013). In the setting of GRTI, this was especially evident in that many of our participants were founders who had self-evidently had the confidence to put their ideas into practice. However, what was surprising was how many of them appreciated the confidence-building of context-specific worked-examples generated in the sessions and the ‘generous’ collaboration and input from the DFs.

Purpose. Many participants identified that the direct questioning, and in particular the focus on persistently questioning ‘why’ they do certain things helped them to find, and describe, the purpose that drove them to start their enterprise and the motivation to sustain it. Articulating this purpose explicitly is beneficial to innovation readiness because it can help to act as a metric for evaluating whether or not to invest time and resource in future opportunities allowing them to question “does this opportunity fit with my core purpose? If not, why pursue it?” (A3). Being more purposeful

provided “an opportunity to ‘think about the really important stuff. [It] cleared the way and has given us a vision of the future” (E7).

Practical Action. Other evidence suggests that leaving GRTI with a clear set of plans, and a priority order for executing them has been valued by participants. This is important because, to a certain extent, GRTI deals with the abstract, a future vision for the enterprise. Tying this to a set of actions that individuals can readily see themselves taking makes the future vision a visible possibility and has helped with “pinning down the tangibles and knowing how to develop it, how to progress it” (E6). Further it has aided with prioritisation and planning, and in some cases, aided enterprises in deciding what not to do as well as “what to get tactical with first [. . .], what to do and where to put my energy” (D1).

Collaboration. Design Thinking promotes multiple disciplinary perspectives concentrated on a given situation. In the case of GRTI, participants have valued the collaborative nature of the engagement of the DFs in addressing their situation. Invariably, this has brought the design discipline to bear on the situation, but, additionally, the DFs, due to their training, have been able to bring to life the concerns of other stakeholders in the situation. This is manifest in the structure of the Triage which explicitly seeks to understand the motivations and

concerns of the network of others that contribute to the production of the enterprise's product or service. Participants also recognise that the "creativity of people together works, [it] challenged [...] and provoked different ways of thinking" (E7). In some ways, DFs taking on the voices of different stakeholders in the sessions offers exposure to the potential value of adopting the stakeholder-centric approach that distinguishes design-led innovation. It is notable, of course, that many Micro SMEs operate as sole-traders or with just two or three employees meaning that opportunities for critical or creative discussions are comparatively limited, thus elevating the potential value of this attribute to MSMEs.

Design Facilitators' perspectives

Reflecting on their experiences of designing and delivering the different iterations of GRTI, DFs shed light on five distinguishing characteristics that help to shape the readiness of individuals and organisations to engage in design-led innovation.

Context and environment. The Triage session is seen as especially important in enabling the DFs to frame the enterprise's situation, to understand the scope of opportunities and appetite for change and to benchmark their innovation-readiness at the start of the programme. However, it serves to do more than that as it allows participants and DFs to paint a picture of the organizational context

(capabilities; capacity; networks; resources; business models etc.) and external environment within which the enterprise operates (sector, market, competition, legislative frameworks etc.). Painting this picture allows the DFs to explore with participants the priority challenges for the GRTI programme and, therefore, to determine how they will proceed. DFs may know nothing or little of the professional context and the participant may be biased, wrong, ill-informed or relatively accurate. Gently working out the degree of confidence and what informs this confidence is also part of the context building.

Fluidity. Very early in the delivery of the first GRTI programme, it became apparent that a prescriptive approach would not be suitable for working with the particulars of MSMEs. A distinguishing characteristic of GRTI, therefore, and in particular session 2; Modelling Opportunities, is that it is non-prescriptive in approach, relying on design process knowledge to guide what is most appropriate. Whilst typical innovation readiness business tools follow an un-erring processual approach, GRTI is deliberately designed to respond to the contextual circumstances of each enterprise. DFs have confidence in their collective ability to work with the emerging priorities of the enterprise and to devise, in real-time, suitable context-specific means of responding. In this way participants are exposed to a design-led intervention, applied to

their organisational situation. They can witness, and participate in design-led activities and see how these can be tailored to address their particular needs. Because the approach at this stage is fluid, the DFs can choose to adopt a whole range of design methods and tools.

Rapidity. Because of the time constraints imposed on each session, the DFs have to work with an intensity that doesn't always allow for deep and detailed consideration of each and every idea or matter under consideration. However, this rapidity is not necessarily seen as a disadvantage – because they are working fast, DFs have the licence to invite participants to put their hesitancy or discomfort about an idea on hold so that its potential can be rapidly explored whilst not getting bogged-down in details. This allows participants to be involved with the rapid generation of multiple different possibilities explored from multiple different perspectives. In a very short period of time they are part of creating multiple different visions of possible futures for their enterprise. Whilst this offers great value, it can also be destabilising and DFs have noted that they must establish trust and rapport (Lampitt Adey et al., 2019; Carrion-Weiss et al., 2021) in order to ensure that they are operating within a safe environment for innovation (Bailey and Smith, 2010).

Time between. Participants have noted the importance of reflection in

their experience of GRTI, and the DFs, perhaps unsurprisingly with the reflective-practice orientation of designers, have recognised this importance too. DFs have noted, increasingly over latter programmes, that the space between workshop sessions (typically a week in most programmes) provides an important time for introspection, to consider what has been done in the workshops so far, and what is being explored for the future. During the course of each session, the DFs will look out for potential sticking-points, or details that require further interrogation before they can be taken forwards. Based on these observations, they will devise homework tasks for the participants that provide a structure to their reflection and a springboard into the subsequent session. In circumstances (such as GRTIA) where the time between has been extensive, it is clear that momentum is lost, whilst in other instances where the time between has been too short, participants haven't had time to consolidate their thinking.

Nurture. Much of the data provided by participants indicates that their confidence in their own ability to come up with and develop sustainable innovation stemmed from the way in which DFs took their ill-formed ideas seriously and built upon them rather than dismissing them. DFs observed that design-led innovation readiness relies on how well fragments of ideas can be brought together to form a robust whole and that in the collaborative

act of envisioning multiple possible futures and aligning them with an organisation's values, ambitions and purpose, innovation readiness is not just measured, but nurtured. Again, the fact that these are MSMEs who don't necessarily benefit from critical dialogue with colleagues within their enterprise, similarly, they don't necessarily have access to the supportive network of a team to work in.

Discussion

The aim of this study is to explore the role of a design-led intervention in priming micro SMEs for strategic innovation. The authors have set out the GRTI programme as a model for achieving this and described how it has been continuously redesigned over time to suit different circumstances, whilst retaining a fundamental structure based on looking both into the past and to the future in order to develop actionable innovation plans. From inductive thematic analysis, the authors have recognised five attributes of the programme that are valued by participants, and five characteristics of the delivery that DFs consider to be important in achieving those attributes. The authors have not sought to identify causality or alignment, rather the authors recognize that these are aspects to be aware of in the dynamic practice of design facilitation with MSMEs.

In their article, *Hunting the Opportunity: The Promising Nexus of Design and Entrepreneurship*,

Nielsen, Christensen, Lassen and Mikkelsen (2017) suggest that 'opportunity creation is a process in which the fluffy links and borderlines between design and entrepreneurship can be considered advantageously'. What the authors demonstrate in this paper is a means by which these links between creative possibility and business realities might be rapidly and artificially synthesised into representations of possible futures as a form of speculative knowledge venturing. Here the rapid and creative synthesis of purpose, multiple perspectives and organisational context, for example, can stimulate the generation of fragile ideas which, if suitably nurtured and explored, can support growth in confidence amongst participants. In this context, such artificial opportunities are 'temporary constructs, steps on the way to new, iterative generations of opportunities' (ibid). GRTI provides a safe environment in which such temporary constructs are nurtured and materialised as verbal or visual prototypes through which to explore their potential and the enterprises' readiness to exploit them. In this case, both the 'experimentation and prototyping' and 'the diversity [of knowledge/experience] and co-creation' principles of Design Thinking are advantageous. Co-creation here involves DFs proffering their ideas as devices that help to reveal and make explicit the tacit knowledge residing in others. This process of sharing, of synthesising tacit and extant knowledge within the

group into new opportunities is at the heart of co-creation, it is a process of new knowledge co-creation. Participants perceive the DFs' act of proffering their ideas as generosity, whereas the DFs see it as a mere device for developing greater collective understanding. This co-created knowledge offers a platform for establishing practical action plans, which further serve to give confidence to proceed.

Design-led approaches are promoted for their user-centricity and customer focus. However, Gulari and Fremantle (2015) suggest that due to scale and proximity, SMEs tend to know their customers well and thus this aspect of design-led innovation is less relevant to them. On the other hand, Nielsen, Christensen and Stovang (2021) suggest that the Design Thinking principle of user/customer focus using such tools as customer journey mapping and personas helps to reveal new knowledge to entrepreneurial managers of SMEs. The authors would argue firstly that customer or user focus is not enough, a wider stakeholder view is called for, and secondly, that it is not a case of whether stakeholders are considered that is important, but how they are represented as forces for innovation. For this reason, through critical questioning, GRTI seeks to reveal the relationships and networks of stakeholders that support, prompt, enable or hinder innovation within the enterprises' context.

The approach that the authors have revealed relies on the dexterity

and confident, real-time creativity of DFs to engage with hitherto unknown situations within the specific context of a given enterprise and to nurture that enterprise in exploring new future opportunities. By representing multiple different stakeholder voices within the workshops, the DFs are able to expose the enterprises to a form of rapid stakeholder-centric design that helps them understand the importance of thinking beyond 'customer-focus'. By translating these opportunities into actionable plans for strategic development, the enterprise is supported to develop their understanding of how ready they are to innovate. Having taken a design-led approach to the design and delivery of the workshops, the participants develop an understanding of what it means to adopt a design-led mindset which, in turn they may adopt in their future practices.

Analysis of the data also revealed that the majority of participants signed-up for GRTI unsure what to expect, but recognising that some form of creative design input may be beneficial and were curious to find out how. This open-minded curiosity is likely to have played some part in the positive outcomes that most participants reported. On the other hand, this observation also identifies a potential failing in the way in which GRTI was promoted, failing to be clear about what the support would achieve. Framing future programme promotion around the attributes identified in this study, may help to bring some clarity in this respect.

A significant limitation of working with MSMEs is in the small numbers of employees who can be involved in the workshops (even the largest MSMEs only spared 3 staff to engage in GRTI) and this can mean that the contextual understanding and subsequent co-creation leans towards the biases of those individuals. The authors are able to help broaden their perspectives and see their situation differently and if they are leaders in their enterprise this may be enough to alter the organisational mindset, but if the authors are working with only a small cohort or single employee of an enterprise, it may not.

Conclusions

Mosely, Markauskaite and Wrigley (2021) state that:

Design facilitation is an emerging design practice, acknowledged across and within the literature, however it is represented in different ways, within different contexts when applied for different purposes, demonstrating design facilitation as a practice that is not well defined both within and outside the field of design.

The authors have explored an application of design facilitation to support the development of innovation-readiness in MSMEs. In this research, design facilitation was highly participatory, where the DFs often outnumber the facilitated. The authors identified that the DFs are reliant on their ability to tease-out of participants a detailed and accurate representation of their context in

order to nurture their creativity through 'generously' contributing their ideas as stimuli for the co-creation of knowledge about multiple possible futures and the translation of these into actionable plans.

Unlike more typical innovation readiness audit tools, this generative approach offers a safe environment, a virtual studio, in which to work with speculative knowledge to explore and experiment in a critically supportive way. This supports participants:

- to become more **reflective**
- by equipping them with new-found creative **confidence** and validation of their entrepreneurial and innovative potential
- by enabling them **purposefully** to conceive of, and map out, new innovation opportunities for their enterprise
- to prioritise what **practical action** to take next
- to value **collaboration** as a means to greater stakeholder understanding

Our study suggests that when adopting a design-led approach to working with MSMEs on their innovation readiness, DFs do, in fact, aid them in both understanding where opportunities lie, *how they might exploit them* (using a design-led approach) and *why this matters* to them because DFs start by exploring the purpose behind their endeavour and use this as a springboard for knowledge co-creation. We might call the innovation-readiness that this

programme achieves readiness for purpose-driven, design-led innovation.

With these learnings in mind, the programme is being further developed to support specific clusters of enterprises, such as community interest companies, or sole traders. These developments allow for more nuanced approaches to be adopted whilst maintaining the essential fluidity of the programme approach.

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