Empathize with Whom? Adopting a Design Thinking Mind-Set to Stimulate Sustainability Initiatives in Chinese SMEs

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Abstract: This paper highlights the growing importance towards supporting Chinese Small to Medium sized Enterprises (SMEs) in adopting pro-active and collaborative behaviors that stimulate sustainability initiatives. Equating to 90% of enterprises in the country and contributing towards 60% of the nation’s gross domestic product (GDP), China’s SMEs are recognized for their willingness to engage in change, raising the potential for exploring and embarking on new ventures. This paper proposes that a design thinking mind-set, rooted in empathic stakeholder dialogue, conceptually supports SMEs to engage with the increasingly complex challenges that envelop China’s society, culture, economy, and environment. Discussion emphasizes that proactively including and responding to the various and ambiguous needs of stakeholders leads to increased opportunity for innovation and new ways of thinking, both being vital for sustainable and responsible growth. Equally, the questions of whom to empathize with and how should SMEs empathize are postulated as roadblocks to the adoption of design thinking in SMEs. This paper proposes a model for addressing those challenges.

Keywords: design thinking; empathy; SMEs; sustainability

1. Introduction

Challenges enveloping society, culture, economy, and environment, the four central pillars of sustainable development, are becoming increasingly complex and forcing entities to innovate and adopt new ways of thinking [1]. The top-down approach of government policy in mainland China is well critiqued, particularly with regard to supporting large scale initiatives that tackle national priorities such as energy [2–4], pollution [5–7], quality standards [8], living standards [9], and more recently policies regarding COVID-19 [10–12]. However, noting that China has over 43 million SMEs equating to 90% of enterprises in the country and contributing towards 60% of the nation’s GDP [13,14], scholars have questioned the degree to which this major component of China’s business landscape is adopting sustainable development principles [15,16].

Benefits for organizations engaging in sustainability related initiatives are well documented. It may be equally noted that the positive relationship between corporate social performance and brand image has resulted in questionable motives behind some organizations’ engagement with sustainable development. Within the China context particularly, there has been a noted adoption of philanthropy as a mechanism for promoting the image that a given company is socially and/or environmentally responsible [17]. Besides critiquing the sincerity behind such motives, there lies the bigger challenge of Chinese SMEs often being marginalized within government policies that have historically focused on large state-owned firms [16]. Chinese SMEs are competing within an increasingly mature market that emphasizes rapid business growth over responsible leadership [13,18], and challenges for Chinese SMEs are further compounded by the combination of a lack of funds and practical know-how, killing off many sustainability initiatives before they have the chance to even begin. These latter challenges are not unique to China as SMEs globally
experience barriers in unlocking capital [13,15], are frequently unfamiliar with the uses and benefits of technologies that support sustainability [19], exhibit organizational iner-
tness [20], as well as experience ongoing practical constraints, such as limited motivation, 
network, resources, and time [21].

Following the global outbreak of COVID-19 in early 2020, Chinese netizens and or-
ganizations alike have evidenced a growing awareness towards the need for more proactive 
engagement in sustainability-orientated initiatives [22,23]. Whereas governance studies 
have largely explored the relationship between environmental and financial performance, 
there has remained limited study into the moderating effects of governance structure [24].

Supported by the wider narrative of cultivating socialist values [25–27] that have sub-
sequently been integrated into the 14th Five Year Plan, President Xi’s September 2021 an-
nouncement of a Beijing based Stock Index for SMEs has led to press speculation towards 
an increase in investment and innovation within the China SME space [28]. Given that 
China’s 14th Five Year Plan also places significant emphasis on governance, sustainabil-
ity, and inclusive growth [23], the ability of an SME to demonstrate these characteristics 
and support their local culture, society and/or environment is increasingly necessary. As 
emphasis towards sustainable development increases, the number of stakeholders that an 
an organization engages with will also increase, which in turn expands the scope and ag-
gravates potential for conflict [29]. Within this context, exploring approaches to support 
Chinese SMEs in implementing good governance to better engage with their respective 
stakeholders and sustainable development is of timely relevance [24].

A review of literature will highlight that adopting a design thinking mind-set is pro-
posed to stimulate an inclusive system of governance that facilitates co-creation; qualities 
that prove advantageous when seeking to proactively kickstart sustainability-orientated 
initiatives. The role of empathic stakeholder dialogue will be emphasized as a key dif-
f erentiating point within a design thinking mind-set. However, for SMEs exploring de-
sign thinking for the first time, challenges may arise when considering the foundational 
questions of (A) empathize with whom? Additionally, (B) how should SMEs empathize?

Therefore, the main objective of this paper is to offer a conceptual approach for supporting 
Chinese SMEs to address these foundational questions. Finally, the paper will summarize 
key points, gaps, and prospects of a design thinking mind-set.

2. Literature Background
2.1. Understanding Design Thinking as a Mind-Set

Design thinking evolved during the late 1970’s to offer a human and environment 
centered approach to problem solving [30]. Grounded in the idea of starting with human 
needs within a given environmental context, design thinking proceeds by emphasizing en-
trepreneurial creativity and value creation, offering a contrasting framework to more tra-
ditional and analytical based management approaches to decision making [31]. Discourse 
around design thinking has taken divergent paths, with one rooted in more technology 
orientated design specialisms and the other in managerial functions [32]. Focusing on the 
application within the wider context of management, there is growing discussion around 
design thinking being a mind-set that may be adopted by management professionals [33]. 
This mind-set may be characterized by two central pillars (i) acceptance towards ambigu-
ity, and (ii) overarching focus on human need.

When defining the concept of ‘wicked problems’ in 1972, Rittel recognized 10 crite-
r ia that bore the underlying challenge scenarios as virtually impossible to solve. Whereas 
the indeterminate nature of wicked problems creates a potentially universal scope, raising 
significant challenge to conventional forms of problem solving that seek definitive solu-
tions [34], design thinking embraces ambiguity. Luka states that “ambiguity means that for 
one phenomenon more than one possible meaning or explanation exists” [35] (p.65). The search 
for a solution is not necessarily about right or wrong but becomes more about better or best 
alternative within recognition towards given limitations and constraints. IDEO, a global 
design company with a leading reputation for practicing and evolving design thinking
concepts [36], comments on this balance between desirability, feasibility and viability being “the intersection where design thinking lives” [37]. This is further differentiated by design thinking’s emphasis not merely on the present ‘what is’, but also the future ‘what if’, which invites ongoing rounds of iteration and improvement [35]. The acceptance of ambiguity within real-world scenarios and problems is thus part of the design thinking mind-set.

The other core pillar of design thinking as a mind-set is the focus on human needs and the idea that the needs of this audience may be experienced [31]. The very first stage in design thinking is commonly championed by the word ‘Empathy’, which intrinsically heralds inclusivity and diversity [38]. By acknowledging diverse perspectives from interdisciplinary teams that include both traditionally prioritized and marginalized stakeholders, opportunities for generating fresh insights and new ideas are enhanced [39,40]. Arguably, with diversity of perspectives and priorities, disagreements are likely to arise [41]. However, design thinking encourages this confrontation of preconceived ideas and supports organizations to facilitate a comparatively open-minded approach to explore underlying pain points that may not be commonly realized or addressed [38]. Importantly, design thinking aids decision makers to not only reduce cognitive bias, but via the combination of empathy for the feelings and experiences of others with creativity and rationality, specific problem contexts may be analyzed, and appropriate solutions generated [33]. Via integration of reflection, conceptualization and acting into the pillar of experience, design thinking thus completes all core phases of an effective learning cycle [42]. From first stage to last, focusing on human needs permeates the design thinking process and mind-set.

Brenner, Uebernickel and Abrell assert that this emphasis towards balancing sensibility with strategies for business viability generates an entrepreneurial creativity and value creation that distinguishes it from more traditionally and analytically driven decision-making methods [31]. This distinction is of particular importance within China’s volatile, uncertain, complex, and ambiguous (VUCA) environment that compels firms to better recognize factors directly and indirectly affecting a given scenario at both the future as well as the immediate period.

2.2. Design Thinking Models

No absolute definition or step-by-step process for implementing design thinking has been universally agreed [43]. However, given the relative recency of the term, combined with its application to a wide range of disciplines, this should not be considered surprising [44]. From the several models that have been developed to facilitate a design thinking approach, there are a few that have gained notable prominence within the literature base.

2.2.1. IDEO’s 3 I Model

IDEO’s 3 I’s (Inspiration, Ideation, Implementation) model was developed in 2001 as it sought to differentiate dialogue about design for social innovation from standard product design due to the organization being increasingly contracted to work on non-traditional design projects in health care and learning environments [45]. Within the context of undertaking new projects in non-traditional sectors where project teams may not necessarily be able to gain meaningful insights by interviewing a projects’ commissioning body, who may themselves not be familiar with the intricacies of the project background, designers need to take initiative to intentionally gain increased embeddedness into the lives of the stakeholder group that their design is envisaged to aid. IDEO classify this first stage of the model as Inspiration. IDEO assert that it is via direct observation of and engagement with key stakeholders that insights for how to impact a given group may be more meaningfully generated. Observation, inquiry, and storytelling are thus integral parts of the Inspiration phase as illustrated in Figure 1. Ideation is the phase wherein the formal design process starts [46]. Brown and Wyatt, IDEO’s CEO and Lead of Social Innovation, respectively, highlight that ideation must incorporate individuals with appropriate depth in a desirable skillset, partnered within an interdisciplinary group to provide scope, yet driven by an empathy for others that goes beyond the groups’ own understanding or experience [45].
Implementation, the third phase, involves converting ideas into an implementable action plan. The action plan seeks to balance the three aspects of desirability, feasibility, and viability [37], perceiving that the ideal balance may be discerned via an iterative approach of prototyping and testing [45].

The models 3 I’s acronym offers simplicity, which Tschimmel suggests can make it more memorable [46]. Equally, the model arguably over-simplifies the various important activities involved within a project. Inspiration fails to account for the depth of research that may need to be undertaken to identify the core matters at hand. Similarly, though illustrated models of the IDEO 3 I’s model typically include Brainstorming as a method for ideating, Brainstorming should be interpreted as an example method and not as a requirement. For project teams composing of members unfamiliar with creative frameworks, the 3 I’s model does not provide sufficient direction with regard to how the Ideating nor Implementation phases may be approached. Although we have highlighted that a design thinking mind-set may be comfortable with ambiguity, and Chinese managers may have a more tolerable disposition towards uncertainty [47], clarity of guidance when utilizing a new model may be preferred. To combat this, IDEO have developed a 192 page Field Guide to support practitioners through each step of the model [48]. Equally, the Field Guide may prove a daunting document for first time readers, especially given that Chinese language does not appear as an option from the IDEO website. Finally, an important inclusion within IDEO 3 I’s model as commonly illustrated is, however, the need for ‘spread’. Designers should not assume that developing an effective solution will automatically result in favorable attitudes, acceptance, or adoption.

2.2.2. IDEO’s HCD Model

IDEO’s Human-Centered-Design (HCD) approach was initially developed in response to the Bill & Melinda Gates Foundation appeal for useful frameworks to support social enterprises working with impoverished communities [46]. A key focus point of HCD was therefore to build increased awareness towards perspectives of “uncommon” or marginalized stakeholders [39]. In the HCD model, the HCD acronym has two meanings. Firstly, it identifies itself as belonging to the Human-Centered-Design approach, which has become a sub-genre within design thinking. Secondly, it communicates the models’ three stages of Hear, Create, and Deliver as illustrated in Figure 2.
As this paper is coming from a Chinese context, it is worth recognizing that an advantage of the Hear, Create, Deliver model is that it complements an existing dialogue in mainland China around the importance of listening, impressed by the ancient character "聽" (see Figure 3). It is common in Chinese to combine multiple characters (words) together to form a more complex word or term. Pronounced as ‘Tīng’, the traditional character for listen emphasizes that listening embodies not only hearing with one’s ear(s), but observing by sight, sensing through emotion, and dedicating one’s undivided attention. Such a description may be more akin to the English term ‘Empathic listening’, which is achieved upon entering into and sharing the experience of others [49]. Though design thinking is gaining traction in modern day China’s high school curriculum [50,51], a particular model of design thinking’s ability to be easily and meaningfully translated into Chinese may favorably impact wider acceptance and improved level of understanding. IDEO’s aforementioned Field Guide may also be viewed to offer recommendations for approaching each stage in the model.

Figure 2. IDEO HDC model of design thinking (Adapted from Tschimmel, 2012 [46]).

2.2.3. The Double Diamond Model of the British Design Council

The Double Diamond (DD) model of the British Design Council was developed in 2004 and visually highlights the divergent and convergent nature of design thinking (Figure 4) [52]. Comprising of four phases that each start with ‘D’, Discovery, Define, Develop and Deliver, the British Design Council explicitly state that the model was developed with the social, economic, and environmental pillars of sustainable development in mind [53].
Various illustrations of the model exist, each placing emphasis on a particular area of the model. For example, the above visual may provide the impression of a linear process, which is contrary to the need for iteration inherent to design thinking. This may be compensated by adjusting the directionality, or adding, arrows between stages. Icons may be added, such as in He and Ortiz’s (2021) illustration to emphasize need for sensory observation during stages [29]. Perhaps anticipating academic criticisms regarding the models’ lack of guidance for implementation, the British Design Council have also produced a model that illustrates drawing upon a bank of design methods, which is available via their website www.designcouncil.org.uk [53].

2.2.4. The Stanford School of Design Model

The 5 staged Stanford School of Design model of design thinking has gained most attention [36]. It’s deep roots in academia for educational purposes [52,54] may have contributed towards the models comparatively wide use amongst academic circles. The model itself has journeyed through an iterative process dating back to 1957, gaining increased prominence since engaging in Innovation Management literature from 2005 [54].

As already discussed, the need for ‘empathy’ is frequently highlighted as a defining characteristic of the design thinking mind-set. Stanford School of Design’s model categorically illustrates this by titling its’ first stage as ‘Empathy’ (see Figure 5). Whereas iteration and prototyping is implicit within design thinking, the Stanford School of Design model also makes this graphically explicit.
2.3. Acknowledging Commonalities in Models

Ultimately, each model seeks to balance the three core factors of (i) the desire to offer a measurable improvement towards a human need, (ii) the available resources to approach this need, and (iii) understanding towards the constraints and opportunities present within the initiatives scope [46]. Design thinking seeks to approach these via its embrace towards verbal and visual expression, typically via forms of sketching and prototyping tools. Tschimmel [46] proposes that this edging away from emphasizing diagrams and tabled data invites an increased level of abductive and inventive reasoning when compared to more analytical, deductive, and inductive traits of traditional problem-solving tools. As Dorst [55] comments, abductive reasoning not only needs to consider the working principle with regard to ‘how’ something is done, but also needs to reflect and ascertain the ‘what’ one is attempting to achieve in the first place. Relating to China-based SMEs that may never have purposefully undertaken a sustainability initiative before and may be unsure of where to begin or what to do, a design thinking mind-set assists with constructively initiating the engagement process. Combined with an increased acceptance towards failure as being part of this process, design thinking seeks to nurture an environment wherein ideas may evolve and grow upon each other [56], ideally maturing in impact as an SME matures in its evolving embedment of sustainable development within its own organizational culture [57].

2.4. The Context of Chinese SMEs

Within the context of Chinese SMEs gaining an increased self-awareness and playing an increasing role in the nations’ economy, calls for enabling improved governance and engagement in sustainability are gaining traction [13]. When designed and positioned appropriately, application of design thinking may be suitably implemented to stimulate engagement with sustainability in Chinese SMEs [29]. Furthermore, critical exploration of issues around empathic dialogue with stakeholders may raise discussion around the generation of social capital that may in turn help SMEs achieve improved understanding of local cultural, societal and environmental challenges, as experienced by others [58]. As exposure to and action on alternative stakeholder needs increases, there becomes improved opportunity for immersing sustainability principles into an SMEs’ evolving organizational culture.

Given that design thinking places an onus on empathy, facilitating authentic dialogue is of particular interest throughout each stage of whichever design thinking model is followed. Whilst recognizing that Chinese SMEs are a heterogeneous group with varying sub-contexts [1], there are observable cultural traits that separate how Chinese SMEs approach problem solving to that of Western SMEs. For example, these may range from increased challenges such as managing concerns related to transparently communicating with a wide array of stakeholders involving perceived exposure towards organizational limitations. Contrastingly, literature exploring entrepreneurship and innovation in mainland China highlights how Chinese culture may facilitate increased acceptance towards the idea that initiatives evolve with experience and time [47] — which is aligned with underlying assumptions in design thinking as previously addressed.

There exists a plethora of tools available when exploring the stages of Ideating, Prototyping and Testing, with approaches chosen by an SME being determined by a range of factors, such as familiarity with the tool, time available, resources available, number of stakeholders participating in the process and scope of the challenge. Ultimately, the approach(es) taken would require group participation and collaboration to be representative of a design thinking mind-set. Furthermore, it is via embracing verbal and visual expression that the benefits of abductive and inventive reasoning arises [46]. Equally, Chinese SMEs new to design thinking may experience several challenges when attempting to complete this interactive cycle. Firstly, China’s rapid economic growth has transformed the country in recent decades. One of the noticeable areas of transformation is the education sector, where annual graduates have risen 487% from 1,036,000 students per year in 2001.
to 6,082,000 students per year in 2011 [59]. Yes, design thinking is increasingly engrained in China’s current school curriculum [50,51]. However, the relevance of this growth in the education industry is that many in executive positions of leadership in China today have never received formal management training. This presents challenges when introducing a new framework such as design thinking. Not only may several stakeholders core to the process be unfamiliar with design thinking principles, but some may also have wider challenges with understanding and recognizing the foundational benefits of having a framework in and of itself. Unfamiliarity creates increased risk of confusion and negative disruption infiltrating the process, thus facilitation from an experienced agent may be beneficial. Secondly, the Chinese education system and culture have traditionally emphasized technical skills over human-skills. Corporate trainers have experienced interactive activities with Chinese groups to varying degrees of success. Whereas younger groups are arguably more formally educated and comparatively open-minded towards alternative approaches towards learning, a significant population of mature management participants demonstrate a noticeable resistance towards such approaches. Resistance has been recognized to stem from a range of factors. Some are more negative in nature, such as the fear of revealing that they do not have the answers, the belief that artistic games are beneath them, or simply a fear of looking incompetent when trying something new. Other resistances may inadvertently stem from an effort to overcompensate for another issue. For example, some management members may adopt silence in effort not to overshadow or limit contribution from other team members who may otherwise exhibit a more agreeable attitude towards their boss’s opinions regardless of personal viewpoint. Additionally, management need to be willing to accept critical feedback without personalizing it. For example, it is important to iterate that testing should not merely be a technical evaluation, considering whether or not a practical solution is proposed, but deeply integrate end user-experience and feedback into the discussion [60]. This process will likely generate conflicting feedback that highlights limitations in initial ideas, outcomes that authoritarian management styles may be less receptive towards.

3. An Underlying Challenge in Utilizing Design Thinking to Stimulate Sustainability Initiatives?

The underlying assumptions behind proposing a design thinking mind-set for SMEs are that (a) sustainability-orientated initiatives are action based, meaning that measures for evaluating impact assessment should be matured over time, (b) Chinese SMEs are to play an increasingly significant role in China’s engagement with sustainable development, (c) Chinese SMEs face a range of challenges that limit proactive engagement in sustainable initiatives, and (d) proposing a practical approach that alleviates these challenges may support more Chinese SMEs to actively stimulate sustainability-orientated initiatives.

Somewhat ironically, the starting point of design thinking may unwittingly present a barrier for many SMEs. Brown and Wyatt (2010) highlight that most design thinking projects start with a brief, wherein guidance and direction is provided [45]. However, for SMEs seeking to utilize design thinking for the first time to kickstart new initiatives that may support a previously marginalized stakeholder group, how should the first stage of ‘Empathy’ (Inspiration, Hear or Challenge similarly) be interpreted and acted on at a practical level? Should there be an assumption that marginalized groups are even on an SME’s radar in the first place?

Empathy comes from the Greek word ‘empathia’. Despite the ancient roots, the English word is itself rather new and was only coined by an American psychologist in the 1930s [61]. There remains discussion concerning a concordant definition of empathy [62]. However, for the purposes of this paper, we will recognize ‘pathos’ as the root of the word, meaning ‘feeling’, and the prefix ‘em’ which is commonly translated as ‘to go into’. We therefore interpret that the general aim of ‘Empathizing’ within design thinking is therefore ‘to get into feeling’ with another person or group. It is an emotional and cognitive activity that seeks to affectively comprehend the viewpoints and experiences of another
person or group via concrete interactions and generate a reactive outcome [63–65]. With regard to governance and mind-set, this logically prompts two questions: (A) empathize with whom? Additionally, (B) how should SMEs empathize?

4. Towards a Model for Starting Empathic Dialogue

In the following sections, drawing on insights from pedagogical literature and deliberation theory, a conceptual approach to address the core questions of (A) empathize with whom? Additionally, (B) how should SMEs empathize? is introduced, from which a mindset for kickstarting sustainability initiatives in Chinese SMEs may thus be inspired. For the scope of this paper, we focus discussion on empathizing with stakeholders, followed by defining specific challenges.

4.1. Stakeholder Mapping as a Tool to Address the Question of ‘Whom’

Freeman and Reed [66] emphasize the need for organizations to engage in a ‘Stakeholder Audit Process’, characterized as a systematic method for identifying stakeholders and assessing the effectiveness of an organizations’ strategies for engaging with its stakeholders. Stakeholder mapping provides a starting point for addressing this activity as it supports the process of visually highlighting the internal and external stakeholders of an SME that may be directly or indirectly affected by the company at a given point of time—current or future [31]. Whereas traditional approaches to stakeholder dialogue tend to prioritize stakeholders based upon their ability to influence power-relationships around a set of economic interests [67], design thinking seeks to embed the thoughts and opinions of lesser emphasized stakeholders into the heart of information gathering [39,68]. This distinction is of particular importance within a macro environment that emphasizes business growth over responsible leadership. Storm [69] proposes that SMEs may adopt a 3-stage stakeholder mapping exercise that adheres to the interactive and visual expectations of design thinking, whilst seeking to combat the limitations of power-relationship inherent within traditional forms of stakeholder mapping. In accordance with design thinking principles, an example via a fictional component manufacturer is provided below, culminating in the illustrated Figure 6.

![Figure 6. Example of stakeholder mapping.](image-url)
4.1.1. Stakeholder Mapping–Step 1

This step involves mapping out on a blank canvas the diverse range of stakeholders that the given SME considers itself to interact with. SMEs undertaking this activity should be encouraged to consider stakeholders from a cradle to grave perspective.

4.1.2. Stakeholder Mapping–Step 2

SMEs should then consider stakeholder groups not represented in Step 1 and add them to the canvas in a separate color. The addition of color stimulates emotion and memorability, and facilitates distinction between the categories of immediately aware and not immediately aware [70]. At this stage, participants employing the model may experience limitation in their thinking processes, influenced by the operational setting and environment of their work routines. To broaden thought processes, the 17 United Nations Sustainable Development Goals (SDG) may be reflected upon within the context of the given SME. Absence of representation in the stakeholder map of a given SDG that the SME directly or indirectly engages with may provide a direction for identifying a lesser emphasized stakeholder. Equally, some SMEs may exhibit a degree of reluctance at including certain stakeholders in their stakeholder map. This may partly be in recognition towards SMEs often feeling excluded from the governance mechanisms of the industry within which they operate, but which are rather controlled by larger entities and/or specialized non-governmental actors and interest groups [58]. Herein lies the benefit of the alternative HCD model of design thinking via its explicit statement of highlighting ‘Hearing’ [46]. Whereas listening is central to all design thinking models, the HCD models explicit statement of ‘Hearing’, irrefutably highlights the need for putting ones’ own viewpoints to the background whilst bringing the factors raised by others to the foreground [71]. Step 2 has thus focused on enhancing the SMEs perception of its relevant stakeholder groups, highlighting opportunities for increased levels of listening.

4.1.3. Stakeholder Mapping–Step 3

The final stage of stakeholder mapping involves indicating the perceived frequency and directionality of dialogue. This may be visualized via the insertion of arrows between the SME and each of the stakeholders represented on the canvas. The use of two colors may provide a quick key wherein one color indicates stakeholders communicated with on a regular basis (e.g., black), with the second color indicating stakeholders that may benefit from an increased level of dialogue (e.g., red).

Upon completion of the stakeholder map, SMEs should have gained an indication of stakeholder groups that they may consider engaging with more, contributing more towards, and/or gaining an improved understanding of [69]. As constructive governance should incorporate two-way dialogue, the SME may notice instances where it receives ample communication from a given stakeholder, but not sufficiently reciprocate, or vice versa. This may have been visualized via the red arrows. Similarly, the absence of a stakeholder group as at Step 1 may have indicated a stakeholder receiving less immediate attention from the SME. The stakeholder mapping activity will likely not have been an exhaustive process. However, design thinking recognizes a comparatively innate comfort with ambiguity that prevents this from being a barrier from continuing to the next step in the process [46].

Stakeholder mapping is not an uncommon tool in strategic management decision making processes. However, there is a tendency for stakeholder mapping tools to orientate around factors such as power/influence, level of stakeholder interest, proximity of the stakeholder, relevance towards key goals, agreeability to share information, etc. These areas of emphasis inadvertently result in the marginalization of stakeholders outside of the narratives of business growth and economic prosperity [67]. Thus, a model that supports the highlighting of less emphasized groups according to the other pillars of sustainable development, culture, society and environment gains relevance. The action of recognizing less emphasized stakeholders represents an important pre-cursor to achieving a design
thinking mind-set as it seeks to bring alternative viewpoints, perspectives and areas of need into the horizon of decision makers [68], thus assisting to address the question regarding ‘whom’ to empathize with.

4.2. A Stakeholder Profiling Canvas to Address the Question of ‘How’

Profiling facilitates the ability to understand the operating context, environment and needs of a given party [72]. Utilized across a wide range of professional disciplines, stakeholder profiling has been critiqued for its frequent neglect by managers, encouraging stereotypes, misrepresenting others’ perspectives, failing to achieve a guaranteed level of accuracy, and oversimplifying complex inter-relationships [72–74]. Each of the stages of design thinking must therefore be recognized as an iterative process, wherein information gained at any later stage may require the revisiting and/or resetting of conclusions that may previously have been assumed as finalized.

Having taken steps to identify a stakeholder group with whom the SME may engage with more, contribute more towards, and/or gain an improved understanding of, the participating SME should aim to build a profile of the stakeholder to gain an increased understanding of that stakeholder’s broader operating context and environment. Observational research methods for gaining insights into the customers’ needs may take inspiration from IDEO’s Field Guide [48], though collating data into a profile will remain helpful for contextualizing insights. Osterwalder, Pigneur, Bernarda and Smith [75] produced a customer profiling canvas that has aided businesses in improving their understanding of a given customer group. Terms employed in the canvas may be applied to other stakeholders to transform the canvas into a stakeholder profiling tool [69]. These 3 core considerations are to: (i) Clarify the primary objectives of the stakeholder via exploring the activities and tasks that the specific stakeholder group is aiming to achieve practically, socially and emotionally. (ii) Clarify the core pain points of the stakeholder, via exploring factors that block and/or prevent the stakeholder from achieving their desired objectives. Additionally, (iii) Clarify gains, corresponding to measures that the stakeholder may employ to evaluate whether an objective has been accomplished.

Beyond identifying the objective needs and positions of a stakeholder group, the SME may consider simulating a video journal from the perspective of the stakeholder that expounds on the feeling when one of the identified pains is encountered, contrasting with the feeling experienced when one of the gains has been achieved. The process of connecting thought, action and feeling facilitates a deeper level of connection with a desired group [31], which in turn may stimulate enthusiasm within the SME participants to develop initiatives that support the identified stakeholder.

Unique organizational circumstance and project characteristics may impact choice of what method(s) may be used to initially gather insights about the stakeholder group. Though collating data into a profile will remain helpful for contextualizing insights, it is recommended that SMEs take inspiration from existing toolkits that introduce a range of observational research methods, such as IDEO’s Field Guide [48].

4.3. Defining the Challenge or Opportunity

Design thinking integrates live stakeholder engagement throughout the Empathizing and Define stages, providing frequent opportunities for the interpretation of viewpoints and needs to be corrected and rebalanced [35]. The aim of design thinking’s Define stage is to converge dialogue and gain agreement regarding a succinct understanding of the core challenge scenario. Complete consensus between all stakeholders may not be possible, however generating authentic dialogue supports the determination of how challenges may be interpreted and barriers realized [76].

Framing Definitions via use of ‘How might we . . . ’ statements offer a valuable and succinct means of posing a challenge as a question to prompt a response. Storm [69] highlights 4 characteristics of effective ‘How might we . . . ’ statements as (i) being human centered, (ii) having a broad enough scope to facilitate creativity, yet narrow enough to be
practical, (iii) being action orientated, and (iv) being assumption free. Where a point of view statement may be written as follows:

\[
\text{[Stakeholder \ldots (descriptive)] needs [need \ldots (action)] because [insight \ldots (compelling reason)]}
\]

An effective ‘how might we \ldots ’ may be written as:

How might [we \ldots (noun)] [state desired outcome \ldots (action)] to/for/because [insight \ldots (compelling reason)]?

5. Discussion

Via Stakeholder Mapping and Stakeholder Profiling, the aim for participating SMEs is to have begun deliberating over the two questions previously raised: (A) empathize with whom? Additionally, (B) how should SMEs empathize? Whilst inclusion of the stakeholder throughout the process is favored, the level of direct engagement between an SME and a stakeholder during the profiling phase will likely be influenced by available resources. Preferably, the SME would be able to receive firsthand input into the profile, or at least be in a position to clarify that interpretations and understanding is accurate. Perspectives from first-hand accounts should ideally be reinforced via observational data collection and relevant secondary research. Undertaking these processes does not guarantee that a state of empathy has been attained, though encouragement towards a reactionary output is a key desirable.

Several boundary conditions to the proposed model for directing empathic dialogue exist. First, within the China context, empathy-based discussions with stakeholders may be influenced by power-distance barriers and an under-established ‘guanxi’ that restricts free flowing discourse. Second, as collective discussion across a wide range of stakeholders is involved, it may not be possible to guarantee complete agreement between the various actors. With diversity of interests, disagreements are likely to be commonplace. Equally, approaches with an iterative process offer improved opportunities for stakeholders to raise concerns and have their voice heard. Ultimately, design thinking prioritizes action over an inaction that may otherwise arise from over-deliberating in the pursuit of perfection. Design thinking presumes failure, remains comfortable with ambiguity, and believes that challenges may be solved through pending action. Third, adopting a model for guidance does not automatically translate into development of a rigorous framework for evaluating the quality of insights received. Chinese SMEs employing the proposed model may require further support to implement the process, generate stakeholder dialogue, contextualize insights within their organizational context, and embed new practices into their own unique organizational culture. Fourth, the proposed process of developing sustainability initiatives through iteration and continuous improvement suggests that situational factors including the changing contexts of stakeholders, macro issues and societal concern may make defining changing needs of a given stakeholder group difficult to fix. These challenges compound more obvious constraints inherent within SMEs, such as limited resources, time and know-how.

6. Conclusions

Chinese SMEs are gaining increasing awareness towards the need for engaging with sustainability. Recognizing that they represent a significant component of China’s business landscape, Chinese SMEs experience several factors inhibiting the adoption of sustainability that include the marginalization of government policies that focus on larger firms, operating within an environment that emphasizes rapid business growth over responsible leadership, and encountering systemic challenges via lack of resourcing and practical
know-how. On the other hand, Beijing appears to be emphasizing the role of SMEs within the economy and there is growing speculation with regard to regulation and policy reform within the SME space. As emphasis towards sustainable development increases, the number of stakeholders that an organization engages with will increase, which in turn expands the scope and aggravates potential for conflict. It is within this context that exploring approaches to support Chinese SMEs in implementing good governance to better engage with their respective stakeholders and sustainable development is of timely relevance.

Furthermore, Chinese culture exhibits a favorable willingness to change that facilitates an openness towards embarking on new ventures. As highlighted within the review of the existing literature base, it is asserted that a design thinking mind-set rooted in empathetic stakeholder dialogue conceptually supports SMEs to engage with the increasingly complex challenges that envelop China’s society, culture, economy, and environment and force all entities to innovate and adopt new ways of thinking. The proposition of innovative approaches that proactively include and respond to the various and ambiguous needs of stakeholders is vital to sustain responsible SME growth.

As raised during the overview of prominent design thinking models, there has been growing usage of design thinking as a framework to approach social, economic, and environmental issues. However, as attention and popularity towards design thinking continues to grow, the assumption that sustainability initiatives start with a coherent target audience in mind should no longer be safely assumed. Although proposed as a theoretical framework and lacking empirical data to comment on the effectiveness of the ideas offered, this research is of significance because it seeks to start dialogue around a gap in the literature base in design thinking, principally being that there is an assumption towards a project brief being present that offers direction for undertaking the subsequent stages of whichever design thinking model is being adopted.

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