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Stories of successful SME digitalization in New Zealand: a narrative inquiry

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ABSTRACT

Small and medium enterprises (SMEs) have persistently lagged in digitalizing compared to larger entities. The digitalization literature has paid little attention to the lived experiences of SMEs while going through digitalization. The purpose of this study is therefore to shed light on the journey of New Zealand SMEs through stories of their digitalization journey. The study employed narrative inquiry as the methodology to investigate how the SME owners make sense of their digitalization journey. It draws on Resource-Based View, Dynamic Capabilities, Social Cognitive Theory and the concept of Entrepreneurial Loneliness to explain the findings. Three SME owner-managers from manufacturing, retail and fitness sectors were interviewed. The study identified three key themes. Firstly, social isolation hinders digitalization efforts. Secondly, resilience and resourcefulness drive experimentation and continuous learning. Thirdly, a misalignment between institutional support and SME needs calls for targeted, tailored support to help bridge the SME digitalization gap.

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Introduction

Small and medium enterprises (SMEs), often comprising nearly 90% of businesses in many countries, are often regarded as the backbone of a country's economy (Gunasekaran et al., 2011). The success of SMEs is critical in improving a country's productivity, wage growth (OECD, 2021) and economic inclusivity (Islam, 2020). Digitalization, which involves the integration of digital technologies into critical business areas, has become a pivotal factor in determining the competitiveness and sustainability of SMEs (Al-Omush et al., 2023; Yuleva-Chuchulayna, 2021). Despite the acknowledged benefits of digitalization, a gap still exists between its potential benefits and the actual uptake by SMEs. A review article by Pfister and Lehmann (2023) notes that there has been a considerable spike in the publications surrounding the value of technology adoption amongst SMEs, but SMEs' digital usage has not kept pace.

In the context of New Zealand (NZ), the importance of digitalization is magnified due to unique factors such as its geographical isolation, persistently poor levels of productivity, and its reliance on overseas exports (Saunders et al., 2021). NZ ranks low among OECD countries for advanced technology adoption, with SMEs struggling to overcome key obstacles such as limited online presence and inadequate management capabilities (Yashiro et al., 2022; Yellow NZ, 2023), risking the loss of an estimated NZ\$46.6 billion in potential economic gains over the next five years (AlphaBeta, 2021).

The disconnect between digitalization's benefits and its actual implementation underscores the need to delve deeper into the prevailing research gaps in this field. Currently, research on SME digitalization largely relies on deductive methodologies aimed at identifying general enablers, inhibitors, and the business value (Etienne Fabian et al., 2023; Ghobakhloo et al., 2022). While these studies have established the antecedents and consequences of digitalization, little attention has been paid to the challenges faced by SMEs while going through the digital adoption process (Thrassou et al., 2020). Moreover, many critical success factors identified are retrofitted from large enterprise research, which may not align with the unique challenges of SMEs (Eller et al., 2020). Furthermore, global research on SME digitalization is heavily focused on Europe and Asia, leaving NZ underrepresented (Rosyidah et al., 2023).

This study will address the research gap on SME digitalization by shedding light on the journey of NZ SME in adopting digitalization. Drawing on Dynamic Capabilities, Resource-Based View, Social Cognitive Theory and the concept of Entrepreneurial Loneliness, the primary research question guiding this study is: *In what ways do NZ SME capabilities, resources and constraints shape their digitalization experiences?* The study will investigate the narratives of SME owner-managers, exploring how they perceive, engage, and implement technology in their enterprises and gain a deeper understanding of their challenges during digitalization.

Background and SME digitalization

Defining digitalization and NZ SME context

SMEs are considered to be independently owned business entities that tend to lack formal governance structures (Small Business Council, 2019). They also tend to have an owner-manager setup whereby ownership is maintained by an individual or a small group of individuals who typically also manage the business (Daneji et al., 2019; Scott & Bruce, 1987).

In this study, SME digitalization will take on the definition consistent with Verhoef et al. (2021) which is characterized by a shift in existing operational processes of SMEs borne from the adoption of digital technology to enhance business value. The NZ government's commonly used SME definition of 49 or fewer full-time employees will be adopted (Small Business Council, 2019).

There is a general agreement that digitalization is critical for SMEs to sustain their competitive edge and relevance (Owalla et al., 2022; Pfister & Lehmann, 2023). Studies have shown that SMEs themselves are also pressured to digitalize to cope with rapidly changing environments (Chan et al., 2019; Singh et al., 2010). Hence, the limited uptake by SMEs (Eller et al., 2020; Ghobakhloo et al., 2022) remains a puzzle that some studies have attempted to understand (Grooss et al., 2022; Zamani, 2022).

SMEs represent nearly 99% of NZ enterprises (Ministry of Business, 2022) and generate nearly a third of the country's GDP (New Zealand Government, 2022). Yet, according to a report by Yellow NZ (2023), only two-thirds of NZ SMEs have undergone some form of digitalization, and a third remain without an online presence. NZ SMEs continue to be digital laggards among their OECD peers (Voges & Pulakanam, 2011). An OECD report notes that NZ's overall digitalization is still behind similar-sized economies even after accounting for the digitalization upshot during the COVID-19 pandemic (Yashiro et al., 2022).

SME digitalization and theoretical frameworks employed

Previous literature has established that while digitalization is crucial for SMEs, they face numerous challenges in this pursuit. SMEs' inherent lack of scale poses a significant barrier to their uptake, especially since digitalization requires significant and ongoing investment (Owalla et al., 2022; Prause, 2019).

To situate the digitalization experiences of SME owner-managers within established theoretical discourse, this study draws upon four theoretical frameworks organized across two dimensions. At the organizational dimension, Dynamic Capabilities Theory, and the Resource-Based View explain how firm-level structures, resources, and environmental conditions shape SME digitalization. At the individual dimension, Social Cognitive Theory, and the concept of Entrepreneurial Loneliness illuminate how owner-managers perceive, engage with, and are psychologically affected by digitalization. Together, these frameworks provide a multi-level lens through which the individual, organizational, and relational dimensions of SME digitalization can be examined and theorized. This is presented in Figure 1 below.

Organizational dimension

The Resource-Based View (RBV), rooted in the seminal work of Barney et al. (2001), argues that a firm's sustained competitive advantage derives from its bundle of valuable, rare, inimitable, and organization (VRIO) resources. Unlike large enterprises, SMEs are resource-constrained by nature, operating with limited capital, human resources, and time (Owalla et al., 2022; Soluk & Kammerlander, 2021). Within the digitalization context, RBV illuminates why SMEs are selective and pragmatic in their technology adoption decisions. The RBV also underscores the strategic importance of intangible resources such as owner exper-

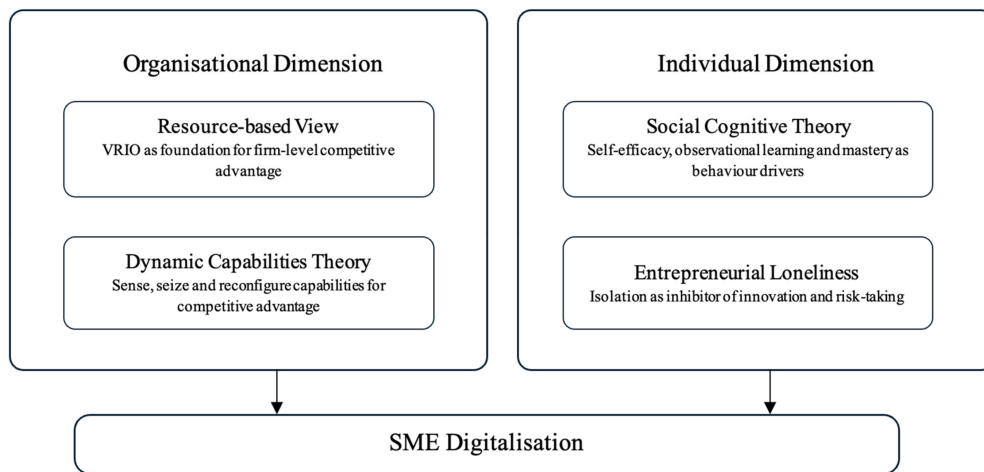


Figure 1. Theoretical frameworks employed.

tise, tacit knowledge (Sipos et al., 2025) and networks (Kingsley & Malecki, 2004) as drivers of digital competitive advantage.

Teece (2007) extends RBV through his Dynamic Capabilities Theory (DCT), which posits that firms achieve competitive advantage not merely through the possession of VRIO resources, but also through their capacity to ‘sense’ or identify opportunities, their ability to exploit or ‘seize’ this opportunity, and continuously transform or ‘reconfigure’ their operational capabilities in response to external changes (Engelmann, 2024; Saeedikiya et al., 2024). In the context of SME digitalization, DCT offers a framework for understanding how owner-managers develop, adapt, and re-deploy their limited capabilities to remain relevant.

Individual dimension

The second dimension explores the individual-level variables of SME digitalization adoption (Santini et al., 2023).

Social Cognitive Theory (SCT) (Bandura, 1989, as cited in Wei-Hsi et al., 2011) provides an individual-level lens for understanding how SME owner-managers acquire and exercise behaviours through the interplay of personal cognition, behaviour, and environmental influences. Central to SCT is the concept of self-efficacy, or their confidence in achieving a desired goal. SCT offers an explanation for why SME owners’ confidence, past experiences with technology, and exposure to role models or mentors significantly shape their willingness to adopt, experiment, and persist through the challenges of digitalization (Olayemi & Akinsanya, 2023; Santoro et al., 2020).

Furthermore, SCT sheds light on the evolving process through which confidence and motivation are sustained over time. These factors influence owners’ risk orientation, with risk aversion being seen as a major crux to SMEs’ pursuit of innovation (Etienne Fabian et al., 2023; Grooss et al., 2022).

As SMEs tend to have an owner-manager setup (Burgess, 2009), the SME owner’s qualities and decisions shape their business orientation, including their propensity to digitalize (Daneji et al., 2019). In this context, it can be argued that individual-level studies of digitalization uptake are more salient than enterprise-level studies, as strategic decisions are often concentrated in the hands of one or few individuals. Individual-level aspects point to the barriers to intent, which address the hindrances to action needed for digitalization to begin. Therefore, more attention should be paid to the individual influences that drive or constrain SME digitalization.

Finally, the study also considered the role of entrepreneurial loneliness in explaining the findings. According to Cardon and Arwine (2024), entrepreneurial loneliness refers to the distinct form of social and emotional isolation experienced by owner-managers who bear the weight of strategic and operational decisions without the support structures available in larger organizations. Unlike general workplace loneliness, entrepreneurial loneliness is shaped by the unique position of the SME owner-manager: simultaneously employer and employee, strategist and executor, often without peers who fully understand their challenges (Fernet et al., 2016; Hofmann et al., 2026). This can lead to diminished entrepreneurial orientation, reduced

risk-taking propensity, and impaired capacity for innovation (Cardon & Patel, 2015). Entrepreneurial loneliness thus provides a critical affective lens that moves beyond SCT's behavioural emphasis, capturing the relational and emotional dimensions of owner-manager experience that shape digitalization.

Research methodology

Narrative inquiry as a research method

Narrative inquiry methodology enables us to gain a rich understanding of the participant's construct of events and how their perception of events informs their actions (Polkinghorne, 1985). Narratives are revealed through stories and are treated as raw data for analysis (Connelly & Clandinin, 1990; Kramp, 2004). Stories, in the context of narrative inquiry, represent how individuals tie meaning to their experiences (Pino Gavidia & Adu, 2022) and the underlying narratives serve as filters through which we, humans, reconstruct and interpret the past and inform future behaviour (McAdams & McLean, 2013). Understanding narratives, therefore, not only illuminates underlying mechanisms of behaviour but also shapes future decisions and actions.

Participant selection, recruitment and data collection

Riessman (2005) asserts that involving large groups of anonymous participants is unsuitable for narrative inquiry. Purposive sampling, selecting participants with specific knowledge and experiences relevant to the research question (Campbell et al., 2020), was used for this study. There is no prescribed number of participants for narrative inquiry (Miles & Huberman, 1994) and multiple studies affirm that fewer than three participants can be deemed valid and adequate for narrative inquiry research (Guetterman, 2015; Lindsay & Schwind, 2016; Subedi, 2021), with some arguing that even a single participant can yield valuable, instructive data for publication (Boddy, 2016; Malterud et al., 2015).

Prospective participants were recruited through referrals and by browsing online NZ business magazines, news articles, and social media platforms like LinkedIn and Facebook. Eligible participants were then contacted via email, with follow-up phone calls as needed. Of the twelve NZ SMEs invited, three agreed to participate. In-depth interviews, lasting 1.5 to 2 hs each, were conducted to collect their stories. These interviews were audio-recorded and promptly transcribed for further analysis. Stories were elicited from participants who met the following criteria:

- (1) The participant must own a business that is considered an SME, characterized by having fewer than 50 full-time employees.
- (2) Drawing from Verhoef et al. (2021) digital transformation model, the business must have implemented a digital distribution and digital communication component, such as having their own online platform that sells their products or services directly to their customers and participates in third-party market platforms and online communities.
- (3) The business uses technology to streamline some internal processes.

Ethical considerations

This research has received approval from the Auckland University of Technology Ethics Committee (AUTEC) under AUTEC reference number 23/360. Participant recruitment and data collection commenced only after explicit approval was granted by AUTEC, with full adherence to all ethical requirements outlined in the approval. To ensure privacy and confidentiality, all company identifiers in the collected data have been de-identified. Additionally, pseudonyms are used when referencing participants and their businesses in narrative descriptions and quotes.

Data gathering using McCracken's long interview technique

Hunter (2012) espouses the use of McCracken's (1988) *Long Interview* method as a protocol to lend structure and rigour to the interview process while still 'allowing research participants to reflect on their personal experiences in a relatively unbiased and free-flowing manner' (p. 354).

The Long Interview emphasizes the importance of enabling the participants to express their viewpoints in their own terms by structuring the interview process into three parts. The first part is to ask generic, open-ended *grand tour* questions designed to prime the interviewee to share their experiences and knowledge on the domain. Some of the grand tour questions used in this research are:

- Could you tell me about what you did prior to starting this business?
- Could you tell me about how you got involved in this business?

Subsequent questions focused on their challenges and experience in adopting the digital tools they use and their decision points. Participants were allowed to reasonably direct the flow of discussions to allow the exploration of emergent themes as they arose (Rubin & Rubin, 2005). To aid their recollection of events, the participants were asked to talk about their business process and recount their adopted tools in chronological sequence. Questions like the following were asked:

- Could you walk me through the digital tools you have adopted, starting from the earliest?
- What did you like about [tool 1]?

As the interview progresses and key information is uncovered, follow-up or floating prompt questions are asked to allow the participant to dive deeper and further reflect on the topic at hand. Some of the floating prompts used in this research are:

- Could you tell me how you navigated integrating [tool 1] into the business?
- What did you like about [tool 1]?

Finally, *planned prompt* questions are specific questions asked at the end of the interview to cover key topics gleaned from the literature that failed to emerge during the interview.

Data analysis

The thematic analysis approach is useful for extracting broad patterns or themes that cut across multiple participant stories (Riessman, 2005) and uncover meanings that may be explicit or implied in the gathered narratives (Guest et al., 2012). The thematic analysis process, adapted from Guest et al. (2012) and Alhojailan (2012), was used to identify patterns or themes across participant narratives (Riessman, 2005). Figure 2 outlines the steps.

After transcribing the interviews, transcripts were reviewed to develop familiarity with the content (Braun & Clarke, 2012) followed by focused readings to identify passages relevant to the research question. These passages were grouped into sub-themes reflecting underlying concepts and further refined into key themes, progressing from concrete data to abstract concepts (Terry et al., 2017; Vaismoradi et al., 2016). Table 1 provides a glimpse of the theme development process done in this study.

This study aims to shed light on the digitalization experiences of SME owner-managers in a specific context. Thus, the findings of this study do not claim generalizability but present stories of digitalization and glean common themes from their narratives that may be transferable to contexts with similar characteristics (Creswell, 1998, as cited in Moen, 2006). To establish validity and minimize bias, we maintained detailed records of the data analysis steps to ensure transparency and dependability. To substantiate credibility and ensure that the results reflect the participants' views, we verified the accuracy and representativeness of our findings with the study's participants.

Results

Company and participant profile

The three participants in this study are founders of SME businesses operating primarily in Auckland, NZ, for at least five years. Despite efforts to include SMEs of varying sizes, all participating companies have

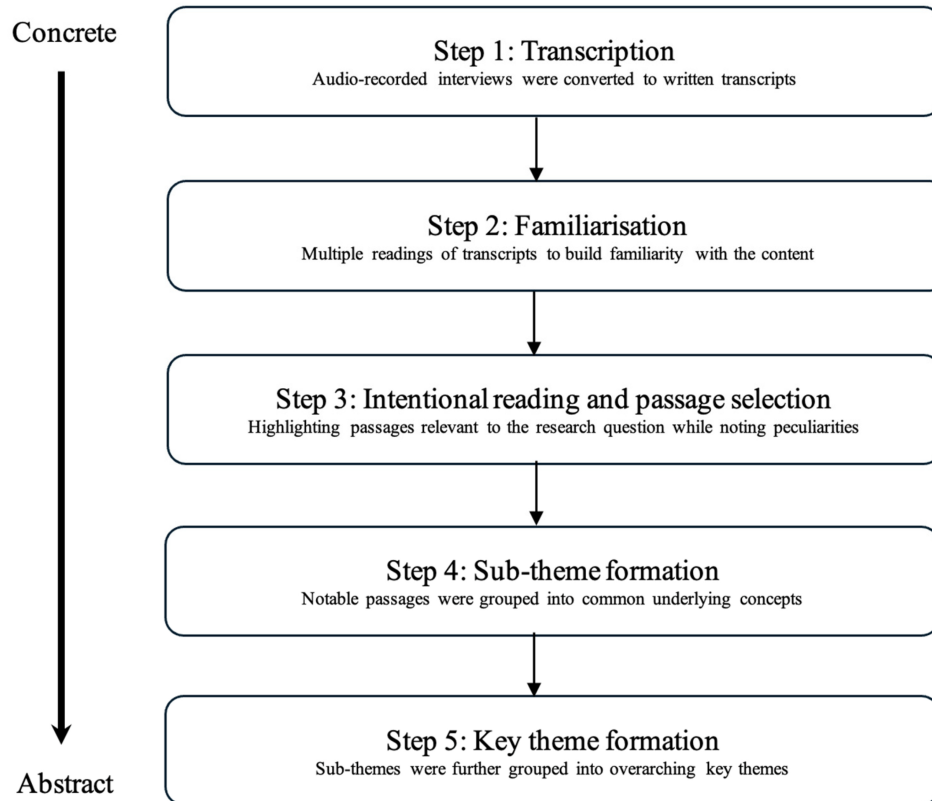


Figure 2. Overview of the data coding and theme development process.

Table 1. Sample of the theme development process.

Key theme	Sub-themes	Codes	Participant quotes
Isolation	Lack of assurance and credible advice	Frustration on the lack of valid, tailored advice	"It's also when it comes to choosing an ecommerce platform, there's so much conflicting advice on the Internet in terms of you know what's best and what's not best."
		Lack of guidance	"I had no idea which platform we'd go with. it's really hard if you don't know much about, if you don't how to code or you don't know much about websites to update things."
	Lack of community	Feeling lonely, yearning for community	"Another thing is also sometimes it can be quite lonely when you're working on your own. So it would be quite nice to have sort of like other entrepreneurs to talk to and bounce ideas off..."
		Feeling lonely, looking for mentors	"But I think entrepreneurship can be a lonely place sometimes. And so I've always kind of advice people to build up a mock advisory board."

fewer than five full-time employees and an annual turnover of less than NZ \$3 million. The participants are deeply involved in their businesses' daily operations.

Table 2 provides an overview of the participants and their company profiles. The digitalization stories of each company are presented chronologically, covering their past, present, and prospective states, mirroring the structure of the interviews and the narrative inquiry approach (O'Toole, 2018). To ensure privacy and confidentiality, all company identifiers in the collected data have been de-identified. Additionally, pseudonyms are used when referencing participants (Peter, Paul and Mary) and their businesses (Company A, Company B and Company C) in narrative descriptions and quotes.

Peter, Company A

Peter and his friends founded Company A in 2019. The company produces high-end cookware with a quality guarantee and currently caters to the Australian and NZ markets.

As a former creative, Peter knew the importance of having an online presence and launched their store using Squarespace, as *'that was what we knew and where we put portfolios up'*. The company soon realized the limitations of Squarespace and swiftly moved over to Shopify.

Table 2. Overview of participants and their businesses.

Company	Owner	Industry	Business profile
A	Peter	Manufacturing	Founded in Auckland in 2019, Company A is engaged in the manufacturing and distribution of high-quality handmade cookware using old-fashioned craftsmanship and recycled materials. The 3 company founders are its sole FTEs. They have 2 part-time employees. Online sales account for more than ¾ of their revenue. The company has recently expanded its business to include Australia and plans to further expand to other markets in the near future.
B	Paul	Retail	Company B is an online retailer that focuses on selling New Zealand food and confectionery items to overseas markets. The business only employs 2 FTEs. The company formally began in 2005 after a rough start in 2000 and has since grown to have a steady customer base. The company has no storefront and generates 100% of its revenue online.
C	Mary	Fitness	Company C was established in Wellington in 2009. The company used to operate 2 gyms but is now fully based in Auckland. The company has 3 FTEs and a few permanent part-time employees.

They decided to expand to new markets by duplicating the shop but underestimated the added complexity and workload of managing two separate shopping platforms. Simply changing to a different platform or adopting a different tool was also not feasible for a *‘resource-stretched’* small company. As their business expands, so do their tasks. The company is now exploring task management tools to document and organize its resources and operations. Finding the right tool for their needs has again become a concern, and he found himself putting in more time *‘just setting it up than actually doing the tasks’*.

Given those challenges, Peter found that one of their biggest hurdles was finding the right advice to help solve their business and digitalization needs. He expressed his frustration in finding *‘so much conflicting advice on the Internet. It’s difficult to get a true perspective on which one to go for’*. Peter mentioned exploring emerging technologies such as artificial intelligence (AI) to elicit recommendations and has found some of the integrated AI features to be helpful but also remarked about finding the *‘balance between using these tools and the level of craft’*.

To this end, Peter stressed the value of community and mentorship in helping them in their digitalization journey,

I always kind of advice people to build up a mock advisory board. There’s this narrative that they get there through hard work and failing fast. But I think a lot of them have just got really good mentors. Because mentors have made the mistakes that their mentee is about to make. So you skip it and it just exaggerates the learning curve so quickly..

He deliberately builds a lot of networks through LinkedIn and has reached out to many experts who have helped the company decide how to approach their digitalization problems. He credits much of their digitalization success to having mentors who help them along their journey.

Paul, Company B

Company B founder Paul shares his journey as a website hobbyist in 2000 to a successful online business selling NZ foods and confectionery items internationally. The company started out with Magento, an open-source business platform, but has since decided to adopt Shopify in the early days of the pandemic, as he found himself with *‘more spare time to think about things’* and has also found that maintaining the previous platform was becoming too cumbersome as the business grew and people’s purchasing habits changed.

In the early days, Paul had to navigate using the platform by himself. He taught himself HTML to fix and maintain the platform. Paul recalls having to spend a considerable amount of time coding and sorting all the orders every day. A friend of his made him an automated spreadsheet that organized the orders automatically, and it has significantly helped save time. Shopify’s numerous plug-ins helped centralize his operations from marketing to payments, accounting and logistics and allowed him to fulfil the surge of orders during the pandemic.

Paul is very pleased with the outcome of digitalizing his business, but he wishes that he had *‘done it 40 years earlier if I could have. I would’ve done less myself. I wouldn’t have used Magento Open Source’*. He acknowledges that it was also down to risk-taking and the possibility of negative outcomes. Paul, already nearing retirement age, does not have any plans to increase his company’s digital use, mainly because the business is not seeking growth. They are happy with their current situation and will not be adding more to their technology stack in the near future.

Mary, Company C

Mary founded Company C in 2009, driven by her passion for martial arts and a vision to create a community-centric fitness environment. The business generates revenue primarily through memberships.

Drawing from her journalism background, Mary leveraged social media to build community engagement before launching her gym. Shortly after opening, she created Company C's website to establish the business's legitimacy and professionalism.

Mary also shared her journey from a completely manual operation to adopting a gym management platform. When the gym started, memberships were done by pen and paper. The company operated on a trust system, and payments were all done in cash. Company C was recommended the GymMaster management platform. Mary saw the value of the platform and decided to adopt the gym management solution. Mary found that digitalizing her operation is a

... game changer, the idea of the gym not being opened and people just signing up was just something that was really foreign. But now it's like quite normal.

Despite the advantages that it has brought, Mary recognized that digitalizing also meant alienating some customers who preferred to do things the traditional way but saw this as an unfortunate trade-off.

Company C uses other software like Canva for marketing, communications, and other business needs. Mary highlights GymMaster's exceptional customer support as a key factor in her satisfaction with their digital solution.

Mary also mentioned constantly having to curate what tools are necessary, as a shiny new potential software isn't always beneficial. She highlighted the importance of consulting customers before adopting new digital solutions, as *'what I think is exciting doesn't necessarily mean what the customer thinks is exciting'*. She also pointed out the risk of technology failure as a barrier to digitalization.

Overall, Mary has had a positive experience with digitalization. There are tools and systems that she wants to integrate in the future, but she would need to assess them and think about the returns. She has no plans to expand her digital stack for the foreseeable future.

Discussion

Following the thematic analysis approach outlined earlier in the paper, this study identified 3 key themes and 8 sub-themes, as presented in Table 3.

Theme 1: impact of isolation

According to the SME owner-managers interviewed, isolation has a profound impact on their digitalization efforts. They often find themselves siloed, lacking the formal networks and collaborative ecosystems that working in large enterprises may offer. Peter highlights the contrast between SME entrepreneurship and his prior life in an advertising agency.

we'd work across everything. You see a diversity of clients, diversity of work, and my job meant working with pretty much every department within the agency. Now, we're just focused on cookware..

This perceived isolation serves a pain point that may hinder digitalization, as businesses have no one to turn to for advice or best practices and find themselves having to navigate the confusing path of digitalization on

Table 3. Key themes and sub-themes gleaned from the collected stories.

Key themes	Sub-themes
Impact of isolation	Lack of assurance and credible advice Lack of community Value of mentors and personal contacts
Experimentation and continuous learning	Persistent self-learning Experimentation
Perceived value and support	Perceived positive value of technology adoption Owner-centric value Lack of practical government policies

their own. As Paul notes, *'I was constantly worried, am I doing it right because I was untrained and doing it myself'*.

They all expressed similar frustration about finding a lack of credible information and guidance. Indeed, prior literature has observed that these challenges are not uncommon for SMEs. Marcella and Illingworth's (2012) study also resulted in similar observations, finding that many SMEs reported feeling isolated and found difficulties in obtaining relevant information. The lack of access to 'validated relevant information' has been found to impair SME growth (Chiwari, 2007, p 136, as cited in Marcella & Illingworth, 2012).

An interesting observation from the interviews came from Mary of Company C, who said,

It would be nice to have other entrepreneurs to talk to and bounce ideas off, even if they can't really give you any advice; it's just nice to talk to someone who understands..

This suggests that even if their networks are unable to offer practical help, being connected to others who can relate to their digitalization journey can be of value. Peter of Company A echoes this sentiment:

It's quite comforting because you often feel like you're the only one going through this stuff across multiple different business challenges, but the reality is it's all been seen and done before..

Embarking on digitalization entails significant investment that exposes them to considerable risk that can have severe consequences if unsuccessful. This suggests that a lack of guidance and assurance heightens the perceived risk of digitalization, thereby feeding into their hesitance. This was evident in Paul's hesitance to improve his old platform:

that's a big thing when you're just a little business. If it's going to cost you a lot of money, you've got to be pretty confident that it's going to work. And that's probably what's most off-putting about it'.

This finding aligns with a survey revealing that 80% of NZ SMEs feel burdened by isolation (Business Mentors New Zealand, 2017). Yellow NZ's (2023) report highlighted the issue of SMEs' mental wellbeing, noting that nearly a third of SMEs have identified mental health as a source of concern, suggesting that the issue of SME isolation in NZ persists.

Drawing from the entrepreneurial loneliness literature, we can conceptualize the isolation experienced by the interviewed SME owner-managers as a distinct affective condition that goes beyond the absence of social contact. Mary's observation that it would be valuable simply to talk to someone who understands reflects a longing not just for practical assistance but for cognitive and emotional resonance. Paul's persistent self-doubt about whether he was 'doing it right' despite years of experience further illustrates how this form of isolation can undermine owner confidence and amplify the perceived risk of digitalization.

The absence of peer networks and mentors also diminishes self-efficacy. Without the observational learning from others navigating similar challenges, SME owners lack the vicarious reinforcement needed to build confidence in their digitalization decisions. Peter's deliberate strategy of building a mock advisory board and his active engagement with LinkedIn networks can thus be understood as a form of self-efficacy cultivation by creating the conditions for confidence-building that his isolated working environment did not naturally provide.

Despite these challenges, the experiences of Peter, Paul, and Mary highlight the resilience and ingenuity of NZ SMEs. They have found different ways to overcome the isolation in their digital journeys. Peter actively builds networks through LinkedIn and conferences to connect with like-minded individuals. Mary leveraged her community, seeking advice from gym members and co-workers with relevant expertise. While Paul mostly navigated his digitalization journey alone, personal friends contributed by improving his outdated system.

Theme 2: experimentation and continuous learning

Based on the participants' stories, the journey of digitalization for SMEs is often marked by experimentation and continuous learning. This theme emerged strongly from the interviews, with participants describing different exploratory approaches to adopting new digital tools. As Peter expressed,

Different agencies have given us different advice. And so we have gone out and done our own learning to have our own perspective on what an informative website looks like'..

Paul's digitalization journey exemplifies this most clearly. He built his online shop on his own, and taught himself how to programme along the way. This suggests that willingness to experiment and learn from failure is a critical factor distinguishing successful digital adopters from those who struggle. This is consistent with the findings of Saeedikiya et al. (2024) and Runst and Thomä (2022), which link the firm's propensity for exploration and learning to better technology adoption outcomes. Crucially, these capabilities emerged not from formal training or organizational systems, but from personal initiative and experimentation, thus extending DCT into the owner-centric context where adaptive capacity is inseparable from the individual owner's learning orientation (Fernandes et al., 2017; Hermawati, 2020). Their narratives further reveal how self-efficacy was reinforced. Each successful digitalization step built the confidence needed to attempt the next.

Theme 3: perceived value and support

The perceived value of digitalization remains a crucial thread in the participants' decision to digitalize. More than the cost, the participants' impetus for embracing digitalization was finding that technologies could solve their business pain points. Mary encapsulated this best when she reflected on deciding to adopt payment automation,

At the end of the day, if we found that it cost too much, then it would just mean that we have to put up our membership price a little bit. We lost some of the revenue percentage, but we could spend more time getting our numbers up and with membership retention. So it was worth it.

Based on the interviews, the perceived value of digitalization is linked to the potential for cost savings, efficiency gains, and improved business performance. None of the participants particularly mentioned customer or regulatory pressure as a main benefit and driver of digitalization. This is contrary to the studies that found customer satisfaction to be the main driver of digitalization for SMEs (Canhoto et al., 2021; Ismail et al., 2011). Owner-centric benefits seem to be perceived as a much stronger determinant of digitalization uptake in the SMEs interviewed.

The desire for growth also emerges as a critical determinant of digitalization. In the absence of growth aspirations, SME owner-managers lack the strategic incentive to address internal business pain points, consequently rendering digitalization an unnecessary or irrelevant endeavour. Company A, for example, is a highly ambitious company with plans to expand rapidly to new markets. They are also the only ones with future plans to optimize their technology stack and anticipate future digitalization needs. In contrast, Paul of Company B does not aim to grow his business and has no plans to digitalize his company any further.

While there is a somewhat chicken-and-egg relationship between growth intention and innovation behaviour, there is a strong argument to be made for growth intention as a driver of innovations such as digitalization, which is necessary for SME growth (Madonono & Barnard, 2020). However, studies found that many SMEs do not seek growth (Wiklund & Shepherd, 2003). Indeed, a MYOB (2022) survey confirms that this is the case for roughly 20% of NZ SMEs. This may partially explain why NZ SMEs exhibit comparatively lower levels of digitalization.

Government support was also a subject that was touched upon during the interviews. While research suggests that NZ has robust programs to support SMEs towards digitalization, the participants' experiences tell a different story. Two of the participants did not receive any government support towards digital adoption, one of them noting,

The government just doesn't get it. They just seemed to ignore businesses the last six years, so no, they haven't been that helpful at all..

One participant was able to get hold of a grant from the Auckland Council but was unable to get any benefit from it due to the various conditions tied to it.

Their narratives suggest that the support provided by NZ government agencies does not always align with the practical needs of SMEs. Previous literature on SME digitalization points to government support as a factor in facilitating SME digitalization (Jin & Pan, 2023; Viana Feranita et al., 2020). However, the effectiveness of this support depends on how well it is tailored to the needs of SMEs (Al-Ajlouni et al., 2024).

DCT offers a useful lens to explain the government support gap. The failure of institutional resources to map onto SME needs could point to a mismatch between external capability-building support that the government usually offers and the actual sensing-seizing-reconfiguring cycles that SME owners enact. This finding suggests that effective policy support may benefit from being designed around the dynamic, iterative nature of SME digitalization rather than offering static, one-off interventions that do not account for how SME owner-managers build and adapt their capabilities over time.

Implications for research

The persistent lag in SME digitalization relative to larger enterprises is a well-documented phenomenon in the broader literature (Eller et al., 2020; Ghobakhloo et al., 2012; Pfister & Lehmann, 2023). Existing research has tended to focus on firm-level enablers and barriers such as resource constraints, environmental conditions, and perceived adoption costs while treating the owner-manager as an input variable rather than as a knowledgeable actor making sense of a personally consequential journey (Thrassou et al., 2020).

Franco et al. (2021) have implicitly shed light on the lack of studies looking into the role of SME owner-managers' agency for implementation to occur. Furthermore, Santini et al. (2023) provided meta-analytic evidence that individual-level factors (e.g. the role of the SME owner-manager) exert a larger influence on digital adoption. It can be argued that the owner-manager setup that defines SMEs, in which strategic intent, personal confidence, social networks, and psychological state are deeply entwined with firm-level outcomes, is systematically obscured by frameworks designed for organizations where the individual and firm are distinct. This study therefore contributes to the extant literature by examining how NZ SME owner-managers' capabilities, resources and constraints shape their digitalization experiences, reframing the owner-manager not as a passive adoption decision-maker but as an active agent whose personal, relational, and organizational endowments shape what digitalization is possible, at what pace, and at what personal cost.

Moreover, the choice of narrative inquiry allowed the researchers to undertake an exploration into the texture of those capabilities and constraints as they are lived, exercised, and felt. Consequently, this study has demonstrated how such a narrative approach can deepen the understanding of SME digitalization processes. The narratives shed light upon the specific effort, cost, and ingenuity involved in the ongoing maintenance, adaptation, and renegotiation through which SME owner-managers make digitalization possible. A visual representation of this is presented in Figure 3.

Implications for practice

Rather than viewing digitalization as a purely technical or linear process, the findings emphasize that it is deeply shaped by owner capability, mindset, resources, and social context. The implications below highlight what SME owner-managers could consider when embarking on or continuing their digitalization journey.

Impact of isolation

A central finding is that isolation significantly shapes SME digitalization experiences. Owner-managers often lack access to internal expertise, trusted advisors, or peer benchmarks, which can heighten uncertainty and perceived risk. Owner-managers should proactively build trusted peer and advisory networks. Even informal connections with other entrepreneurs can build emotional resonance, strengthen confidence, and thereby support decision-making. Policymakers, as well as digital service providers, could better support SMEs through ecosystem-building mechanisms, such as peer networks, mentoring schemes, and facilitated communities of practice.

Experimentation and continuous learning

The study found that digitalization in SMEs commonly unfolds through experimentation and self-directed learning. Owner-managers are encouraged to undertake small-scale experimentation to help reduce risk while building capability and confidence over time. Treating digital initiatives as learning processes can help SMEs adapt to changing technologies and business conditions. Government support programs could be

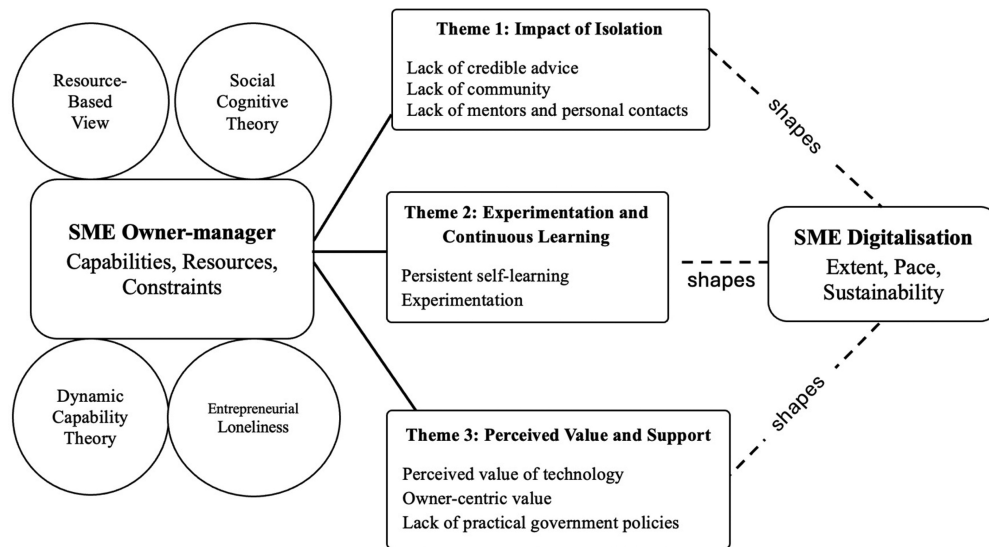


Figure 3. Visual thematic framework.

designed around flexible iterative learning cycles rather than one-off interventions to better align their support with SME digitalization practices and differing digitalization maturity levels.

Perceived value and support

The interviewed SME owner-managers adopted digital tools only when they saw clear value in solving their internal business pain points. External pressures, such as customers, competitors and regulations, proved less influential. Digital investments should therefore be anchored in clearly defined business problems. Asking ‘what problem does this solve for my business or for me as the owner?’ helps ensure technology adoption delivers meaningful returns. Support schemes and digital solutions should clearly resonate with owner-managers’ immediate priorities and recognize that not all SMEs want to grow and that they are constrained, not just financially but also mentally and emotionally.

Conclusions and future research

The findings of this study highlight several themes that deepen our understanding of the digitalization experience of NZ SME owner-managers. Firstly, the significant barrier posed by isolation underscores the need for enhanced networking and mentorship programmes tailored for SMEs. Targeted interventions that mitigate feelings of isolation can reduce the adoption friction by providing reassurance and ultimately improving digital adoption rates.

The owner-manager’s continuous engagement with technology through experimentation and learning has also emerged as a fundamental approach for adapting to and integrating new digital tools. Encouraging SMEs to adopt a culture of continuous learning and experimentation is crucial for continued digitalization.

While a number of studies have established broad connections between entrepreneurship and feelings of isolation (Cardon & Arwine, 2024; Patzelt & Shepherd, 2011), the specific nuances of isolation within the SME owner-manager context remain largely underexplored (Otto et al., 2020). Fernet et al. (2016) argue that there is a case to be made that the impact of SME owners’ psychological state informs their entrepreneurial capacity, which influences their capacity for risk-taking, adaptation, and innovation, all of which are needed for digitalization (or further digitalization) to occur. This gap is further reflected in how SMEs perceive government assistance. While existing literature acknowledges the importance of government support for SME digitalization, our study reveals a gap between the standardized support provided and the practical needs of NZ SMEs.

Lastly, the theme of perceived value of digitalization remains centred on the immediate tangible benefits a technology offers to business operations.

This study is not without limitations. Firstly, narrative inquiry is a highly interpretive methodology, and its findings hinge on the researcher's ability to understand and analyse the narratives (Kramp, 2004).

Another limitation is the small and homogenous sample size, with data collected from three willing participants who are all based in Auckland, NZ. Although narrative inquiry does not aim for large sample sizes, the limited number of participants can restrict the transferability of the findings. As Kramp (2004) notes, narrative inquiry's goal is to gain a deeper understanding and enlighten a specific perspective rather than explain it broadly. Consequently, the findings of this study are exploratory and contextually transferable rather than broadly generalizable. They present rich, localized stories of digitalization to glean common themes that may resonate with and apply to other contexts with similar characteristics.

Future research involving more heterogeneous SME participants may provide richer insights. Conducting longitudinal studies could also provide valuable insights into how SME digitalization evolves over time and in response to emerging trends and technologies.

Use of generative AI

Microsoft 365 Copilot (Version 2.20260331.37.0) was used as an assistive tool to support idea generation for the Implications for Research and Implications for Practice sub-sections. All content were reviewed, verified for accuracy and relevance, and edited by the authors, who retain full responsibility for the final manuscript.

Author contributions

Denise Selina Y. Tan: Formal analysis, Investigation, Writing – original draft. **Felix B. Tan:** Conceptualization, Project administration, Supervision, Writing – review & editing.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Data availability statement

The data supporting the findings of this study are available on request from the corresponding author. The data are not publicly available as they contain information that could compromise the privacy of research participants.

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