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## **Dynamic resource analysis and the development of psychological resilience: an entrepreneurial perspective**

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**Abstract:** Psychological resilience has received much attention in academic research and practical applications due to its effectiveness in helping individuals to cope with pressure. However, few studies have examined how resource-based responses to constraints affect the psychological resilience of entrepreneurs, as well as the role these resources play in helping entrepreneurs overcome constraints. A study of four cases with six activities from Vietnam and Japan found that entrepreneurs who have succeeded in dealing with constraints attribute them to specific problematic components within a specific activity (partial constraint), rather than the entire resource (entire constraint). They resolve these constraints by selecting and creating new activities that utilise other components and a combination of constraining and non-constraining elements. This is supposed to be the relationship between resource analysis and the construction of psychological resilience. This implies a practical step-by-step process for recognising partial constraints and leveraging resource components, which can be applied in entrepreneurial training programs.

**Keywords:** resource-based constraint response; dynamism of resource analysis; relationship; psychological resilience; partial constraint.

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## **1 Introduction**

Events that affect companies' activities are described by various concepts, such as crises, adversity, and constraints. These situations limit activities or make it impossible to carry them out effectively. Research on responding to constraints has been conducted using the concepts of improvisation (Cunha et al., 2014), bricolage (Baker and Nelson, 2005), frugal innovation (Radjou et al., 2012), and resilience (Zolli and Healy, 2012). Studies on constraint response are diverse, but their relationships are still vague; however, a common theme in these efforts is problem solving through discovering, strengthening, and utilising resources (Nguyen, 2025).

On the other hand, psychological resilience (Margolis and Stoltz, 2010; Hartmann et al., 2022) and mental toughness (Clough et al., 2002) have received increased attention in academic research and practical applications because of their ability to cope with pressure. However, there has been insufficient consideration of how elements such as passion, tenacity, and a spirit of adventure, can be gradually developed as entrepreneurial characteristics and how this relates to the definition of resources. Furthermore, *few studies have examined the relationship between resource-based responses to constraints and the psychological resilience of entrepreneurs and the role these resources can play in helping entrepreneurs overcome constraints.*

Therefore, the aim of this paper is to examine how resource-based responses to constraints affect the psychological resilience of entrepreneurs, as well as the role these resources play in helping entrepreneurs overcome constraints. First, it examines existing studies on resource definitions and constraint responses. It then reviews and summarises the approach to psychological resilience in dealing with constraints. Subsequently, cases are presented to further examine the research question. The last section examines the relationship between resource-based constraint responses and psychological resilience followed by analysis, discussion and conclusions.

## 2 Literature review

### 2.1 Resource overview and constraint response

In the literature, events, situations, and problems affecting business corporate activities have been referred to using various concepts, such as economic crises (Davidsson and Gordon, 2016), risky situations in business activities (Keh et al., 2002), and dangerous areas such as war (Bullough et al., 2014). Existing research has also used concepts related to business resources, such as resource crises due to disasters (Williams and Shepherd, 2016), resource shortages (Cunha et al., 2014), and resource constraints (Baker and Nelson, 2005).

On the other hand, research on responses to constraints is diverse, including improvisation, bricolage, frugal innovation, and resilience research. However, the relationships between them are unclear. For example, Cunha et al. (2014) focused on three constraints: lack of time, lack of resources, and customers not being wealthy. They summarised improvisation, bricolage, and frugal innovation approaches to respond to each constraint in order. Improvisation is often observed in arts, education, therapy, and athletics. It is defined as the degree to which the planning and execution of an action converge over time (Moorman and Miner, 1998) and the intuition that guides spontaneous action (Crossan and Sorrenti, 1997). Bricolage is a resource creation process (Banerjee, 2014) carried out within an organisation by fully utilising the available resources (Baker and Nelson, 2005) or mobilising the available resources (Desa, 2012), as opposed to externally sourcing any missing necessary resources to achieve a goal. Bricolage is an interaction process related to improvisation, which is often carried out when resources are incomplete, whereas improvisation is time-constrained and involves simultaneous planning and execution using existing resources (Cunha et al., 1999, 2014). Frugal innovation provides good products and services at affordable prices to customers with low purchasing power by reusing resources inside and outside the organisation (Cunha et al., 2014).

However, existing research on constraint responses often focuses on distinguishing between different response methods and explaining their differences. For example, many improvisation studies assume that bricolage is embedded in improvisation (Cunha et al., 2014), but Weick (1993) has shown that bricolage and improvisation are both sources of resilience capabilities, which implies that they are not the same concept. Baker et al. (2003) implied that improvisation is bricolage because improvisation is carried out simultaneously with planning and execution; there is no time to explore other resources, and one must rely on the available resources. However, these studies have not considered the complementarity of response methods based on the research on constraint responses. Since the relationship between these studies on response methods is unclear, establishing a common framework or research foundation for analysing events, situations, and problems that affect corporate activities will be challenging. Overcoming the limitations of each research study and complementing each other, is necessary to guide constraint response efforts in practice more effectively.

Although not all research on constraint response is related to resource-related constraints, responding to constraints is related to discovering, strengthening, and utilising resources. Therefore, considering the definition, utilisation, and response to resource constraints is a crucial aspect of building the foundation that supports research into constraint response.

## *2.2 Resource-based response as a foundation for research into constraint response*

There have been many studies on entrepreneurship that focus on people with disabilities or minority entrepreneurs who deal with constraints. For example, the study of Haq et al. (2023a) on 32 owner-managers with 11 employee-managers from South Asian ethnic minority microbusinesses revealed that ethnic minority microbusinesses did not develop in isolation but were influenced by the surrounding environment, and entrepreneurs' capabilities (such as previous experience, on-the-job training, and academic qualifications) were developed in relation to a specific culture and influenced by the culture. The study of 19 New Zealand refugee entrepreneurs revealed that the various complex economic, political, social, and cultural factors in their home, transition, and host countries have influenced and fostered the development of important entrepreneurial attributes including self-confidence, resilience, adaptability, and resourcefulness (Ranabahu et al., 2024). These human capital resources are crucial for the success of ethnic minority microbusinesses (Haq et al., 2023b). Existing studies have emphasised the necessity of government and societal support to empower entrepreneurs with disabilities, boosting their confidence and changing societal attitudes (Salamzadeh et al., 2022). Not only the study on disability entrepreneurship (e.g., Nguyen, 2025; Nguyen et al., 2024), the study on women entrepreneurship in Africa also showed that despite disadvantaged resources, women perform effectual behaviours through frugal innovations to deal with obstacles they face (Boutillier et al., 2024). The study on 30 female-owned businesses showed that success cases are characterised by patching strategies which include changing the business location, adapting to the shifting business environment, gathering and utilising market intelligence, and acquiring comprehensive knowledge about the business sector (Ackah et al., 2024).

This study argues that although not all research on constraint response is related to resource-related constraints, and the names of constraint responses vary, such as improvisation, bricolage, frugal innovation, and resilience research, the process of constraint response involves the discovery, strengthening, and utilisation of resources. Therefore, considering resource utilisation and responses to resource constraints is one of the foundations that support research on constraint response. For example, if an entrepreneur cannot recruit workers due to shortages in the labour market they have the several bricolage-type responses to choose from:

- 1 do nothing
- 2 place less emphasis on businesses that require additional resources that are not available
- 3 take measures to reduce the possibility of interrupting the resource supply (Baker and Aldrich, 2000).

Resilience research also asserts that entrepreneurs must diversify their resource base to recover from destruction caused by disasters, crises, and dramatic changes (Zolli and Healy, 2012). Improvisation is considered a response to time constraints, while bricolage is seen as a method for addressing various resource constraints, including time.

Resources have been described in terms of static material objects; employed people (Penrose, 1959); operational inputs and capabilities, including financial and organisational resources (Barney, 1991); and dynamic capabilities for building,

reconstructing, and combining resources (Teece et al., 1997). When resources necessary for activities are insufficient, various response actions can be taken such as to optimising the utilisation of available resources (Fukushima and Kwoen, 2009), using other people's resources and combining them with yours (Radjou et al., 2012), implementing strategies for the spontaneous accumulation of resources (mainly skills and abilities) within the organisation (Itami, 2003), saving on the use and expenditure of limited resources, and starting new businesses by accelerating the accumulation of existing resources (Gianforte and Gibson, 2005).

*Constraint response efforts are deeply related to resource utilisation, but the definition and utilisation of resources, which are the basis of constraints, have not been deeply considered.*

### 2.3 Role and construction of psychological resilience

Research on entrepreneurship often explores the unique characteristics and motivations that distinguish entrepreneurs from others, for example, international entrepreneurs and domestic counterparts (e.g., Dana, 2017; Dana and Salamzadeh, 2024; Etemad et al., 2021; Sadeghi et al., 2019), from entrepreneurs and non-entrepreneurs (e.g., Baron, 1998; Palich and Bagby, 1995). Baron (1998), who focused on the cognitive mechanisms of entrepreneurs, pointed out that distinguishing entrepreneurs from ordinary people by characteristics such as optimism and a proactive approach to taking risks without fear is limited. He argued that it is not possible to clearly explain which factors have the most significant influence, nor to account for the diversity of entrepreneurial activity in various situations. The difference between entrepreneurs and ordinary people lies in analysing situations, focusing on differences in perception rather than characteristics (Baron, 1998). Specifically, entrepreneurs can discover more opportunities and profit potential in a particular situation than ordinary people (Palich and Bagby, 1995). Research on organisational creativity also states that it is related to the perception that the resource constraints are a fact for the organisation or a situation that induces creative responses (Cunha et al., 2014).

Thus, existing research suggests that constraint response is related to the entrepreneur's subjective perception. However, how subjective perception functions in or contributes to the constraint response process is unclear.

In addition, resilience research has been highlighted as maintaining the original primary purpose and integrity in the context of disasters, crises, and dramatic changes (Zolli and Healy, 2012). Psychological resilience (Margolis and Stoltz, 2010; Hartmann et al., 2022) and mental toughness (Clough et al., 2002) have attracted attention in academic research and practical applications, due to the ability of those who possess these characteristics to cope with pressure. Margolis and Stoltz (2010) studied leaders of various companies and industries. They found that managers with psychological resilience were characterised by their ability to quickly shift from a causal analysis to a response mindset after adversity began. The following four thoughts were cited to elaborate this response mindset.

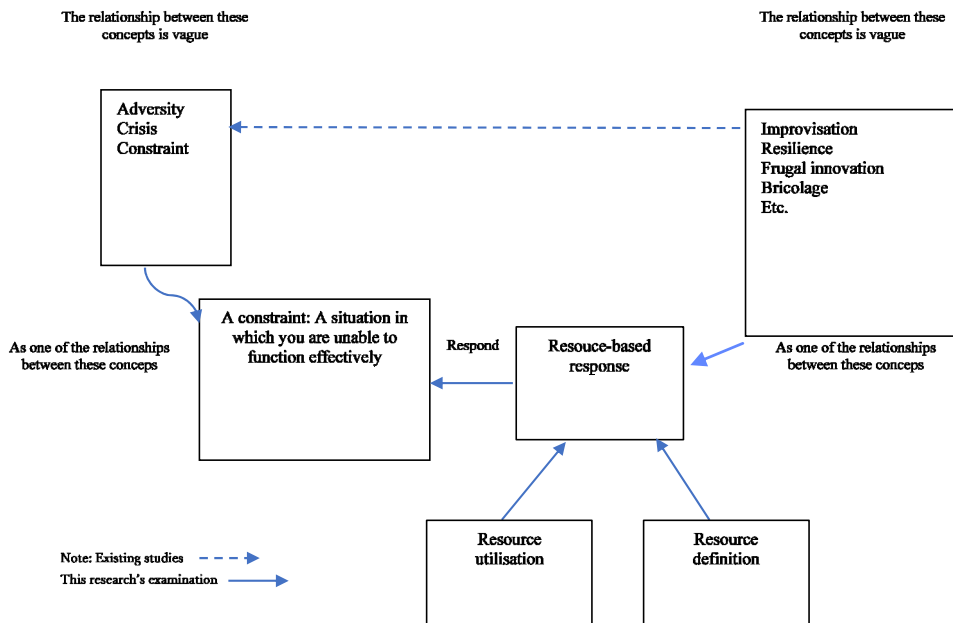
Inputs and abilities for activities are considered resources (Barney, 1991). Existing research emphasises that dynamic capabilities, which are the ability to construct, reconstruct, and combine resources dynamically, are defined as a type of resource (Teece et al., 1997). Since research has shown that entrepreneurs and managers who can effectively deal with constraints have high psychological resilience and mental

toughness, this study considers these elements as a capability, a resource, and an input for entrepreneurs to deal with constraints. This research regards mental toughness and psychological resilience as concepts that share similarities in dealing with constraints, which include two parts:

- *Responding to impacts* (how to respond to the effects of constraints): Specifically, recognise that no constraints have a permanent impact on every aspect of life, as outlined by the characteristics of *impact*, *breadth*, and *duration* (Margolis and Stoltz, 2010).
- *Coping behaviours* (how to respond to constraints): Instead of wasting time investigating the causes, consider how to respond to the constraints [*control* proposed by Margolis and Stoltz (2010)]. On the other hand, Hartmann et al. (2022), who reviewed previous research on the psychological resilience of entrepreneurs, concluded that resource availability is related to entrepreneurs' psychological resilience. However, this discussion is based on the assumption that resources already exist. Therefore, previous research has not fully considered the relationship between resource constraints and the psychological resilience of entrepreneurs, nor the role these resources can play in helping them overcome constraints. *The relationship between utilising resources and constructing psychological resilience in dealing with constraints is poorly understood.*

*Research question: what is the relationship between resource-based responses and psychological resilience?*

**Figure 1** The relationship between resource definition and psychological resilience (see online version for colours)



### 3 Research design

#### 3.1 Sampling

Though existing studies mention that most poor people do not possess the skills, vision, creativity, and persistence to become entrepreneurs, self-employed individuals in emerging contexts are found to excel at maximising their resources, showcasing creativity and resilience in overcoming challenges (Dana, 1994). In Vietnam, since many companies have regarded PWDs as individuals having low productivity, few PWDs can find jobs suitable to their disabilities. For example, only 31.7% of the over 8 million people with disabilities in Vietnam were employed as of 2018 (Ivanov, 2021). Therefore, examining the cases of disability entrepreneurs in Vietnam under extreme constraints gives a deep understanding of how they deal with disabilities as a constraint in their human capital resources and build up psychological resilience. Therefore, examining the process of dealing with resource constraints in Vietnam as an emerging context reveals the mechanism of responding to resource constraints and its relationship with psychological resilience.

Data collection consisted of three stages. The first section involved searching the internet for potential cases based on two criteria:

- 1 there was some constraint in the activities
- 2 there was creativity in making good use of something that had been widely regarded as not being valuable or not having a specific contribution to some activities.

The second stage included gathering secondary data on the potential cases to check whether the secondary data can fully answer the research question described above and what was still unclear to use as the questions for the semi-structured interviews in the third stage.

In the third stage, semi-structured interviews were conducted with the selected participants. The interviews lasted 60 to 90 minutes, allowing for an in-depth exploration of participants' experiences regarding their responses to resource constraints and their relationship with psychological resilience. Participants were selected using purposive sampling, targeting individuals directly dealing with resource constraints in problem-solving processes.

The data collected from the semi-structured interviews were analysed using a quoting analysis approach, allowing for the direct representation of participants' responses. Ethical considerations were also considered during the research process. The authors explained the purpose of the research and assured participants that they could withdraw at any time, that they would remain anonymous, that the results would not be used for purposes other than this research, and that the research data would be stored and protected. Once consent was obtained, the interviews were conducted.

Furthermore, it is also essential to verify the theory's validity in other contexts. Therefore, cases 2 through 4 (education activities in a developed context) were strategically studied using the participatory observation method, which helped the authors thoroughly examine the abovementioned relationship. One of the authors acted as a participant observer to explore the relationship between psychological resilience and resource-based responses in dealing with resource constraints (Nguyen, 2021). This method enabled the authors to determine what matters to the activities faced and how

resource shortages could affect the participants' psychological factors. Japan is experiencing high ageing and low birth rates; Japan set a goal to reach 400,000 international students by 2033 to attract more international students. For example, in 2022, approximately 170,000 students entered Japan on student visas (Note 1), contributing to over 231,146 international students (Note 2). However, Japanese proficiency sometimes becomes a challenging task for international students to get used to Japan's living and educational environments, and it also becomes a challenge and a constraint for Japanese schools to overcome to accomplish their education and social contribution missions.

How did the participants overcome this problem by taking advantage of resources? What was the relationship between problem-solving and participants' psychological resilience? For example, was it because of pre-existing psychological resilience that entrepreneurs had confidence in facing the lack of resources and actively seeking resources to solve the problem? Alternatively, was it due to the pre-existing capability of creating or exploring resources that the participants were confident in solving the problem and gradually formed psychological resilience?

## *3.2 Cases*

### *3.2.1 Case 1*

The entrepreneur was born in a poor Vietnamese village. His parents passed away when he was still under 10 years of age, and he had to live in the care of his grandparents. When he was 9 years old, he unfortunately broke his right arm in an accident; due to inadequate treatment, it later became necrotic and had to be amputated. When he saw his uncle playing a guitar when he was young, he became interested and asked for tuition. He practised more to play the guitar with only his left hand and performed the harmonica. He had many jobs, such as hairdressing and car repair, and then graduated from a national university in Ho Chi Minh City. From his experiences, he understood the hardships and uncertainties of children in the same situation on the path of study and career orientation. He then decided to open a child welfare centre to support orphans and children with disabilities. For more than ten years, he has been reading newspapers or watching the news; whenever someone shares with him or learns about difficult circumstances, he travels all over the country, verifying the circumstances and welcoming the children to his facility. The facility raised over 100 orphans and disabled children. On average, about 30 children are living and studying at the facility, aged 5–18 years, including orphans and disabled children. He runs a preparatory school for university entrance exams. He teaches Math, Physics, and Chemistry directly to the facility's children so they can take university entrance exams. He also teaches students outside the facility to prepare for exams. Over the past decade, many students have been admitted to prestigious universities with high scores and have even received scholarships to study abroad. Each student who passes the university entrance exam will be taken care of tuition, accommodation, and food by the entrepreneur. Using his expertise, skill in music, and network, he actively participates in musical performances inside and outside Vietnam to raise funds to operate the centre.

### 3.2.2 Case 2

Nearly 100 international students from China, Vietnam, Malaysia, and Thailand study at Aomori Chuo Gakuin University (ACGU), a private university in a local area of Japan. Some of them are newcomers with low Japanese proficiency. The surrounding areas of the university cover an area of 1,400 square metres, where many older people live. Ageing is a significant concern in many Asian countries, particularly Japan, where the population is rapidly ageing. In 2021, 28.9% of the population in Japan was aged  $\geq 60$  years (Cabinet Office, 2021a), and the percentage of older adults living alone was 15% for males and 22.1% for females (Cabinet Office, 2021b). Japan has been addressing this issue as a national concern, considering the social problems of isolation and loneliness. Loneliness refers to the subjective feeling of being alone, whereas social isolation refers to a lack of social relationships (de Jong, 1987). While there have been discussions about effective interventions for loneliness, few directly address feelings of social isolation (Williams et al., 2021).

To deal with the problems of loneliness and social isolation among older people living in the area, students (including international students) from ACGU have planned and carried out many projects. Project 1 ‘Community Farm’: The students used the vacant land and transferred it into a community farm where they and the local people gathered to grow flowers and vegetables, harvest, prepare food, and interact with each other at the table, enjoying the rewards of their joint efforts. Project 2 ‘Community Garden’: The students and the locals used another vacant land and transferred it into a community garden, like a small park where everyone can gather, rest and communicate with each other. Project 3 ‘Everyone’s Kitchen’: International students present their traditional cuisines and teach the locals how to prepare them, using coriander harvested from the community farm as a cross-cultural exchange. As part of the events, the students plan a cross-cultural quiz competition tackled by everyone from elementary school students to older people so that everyone can learn from each other and about cultural differences.

### 3.2.3 Case 3

One of the unique features of the education program of ACGU is, besides regular in-campus teaching hours, proactively allowing students to participate in extracurricular activities and community contribution activities to contribute to the community, helping students accumulate social experiences through these activities. Below are some projects.

Project 4 ‘Kyoichi Sawada Project’: Vietnamese students with low Japanese proficiency worked in collaboration with the Aomori Prefectural Museum to collect information about uncaptioned pictures taken by the famed photographer Kyoichi Sawada over 50 years ago in Vietnam to celebrate the tenth anniversary of the museum’s opening and the 80th anniversary of Sawada’s birth (1936–1970) in 2014. Two hundred elucidated photos were displayed at the exhibition and elsewhere in Japan and overseas (Nguyen, 2021).

Project 5 ‘Localise Project’: Entrusted by the Aomori Prefectural Government, international students studying at the Aomori Prefecture visited food production factories and farms, developed recipes using these materials and introduced them widely to their country’s people through fairs and cooking classes in their country – the project aimed to

promote the consumption of materials produced at Aomori Prefecture in international students' countries (Nguyen, 2021).

3.2.4 Case 4: 3.11 disaster refugee support

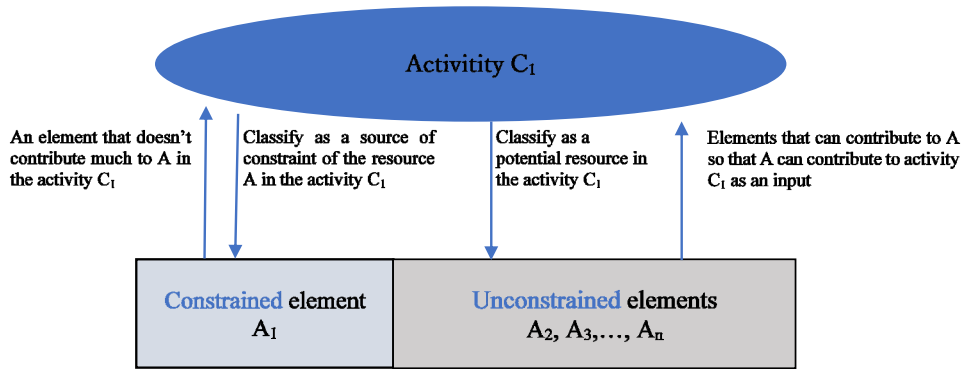
This student-based project was established to assist refugees who had evacuated to Aomori Prefecture from the disaster areas of the 3.11 Great Earthquake in March 2011 and who still lived in the disaster areas. The project members intentionally received no external funds to co-create creative solutions with many organisations (governments, companies, social organisations, and refugee groups) to deal with social problems in the aftermath of the 3.11 Great Earthquake (Nguyen, 2024).

4 Analysis and discussion

4.1 Cognition of partial constraints based on the resource analysis method

There are some constrained elements in the resources of the cases discussed. These are the disabilities of the entrepreneur in Case 1 and the low Japanese proficiency of international students in Cases 2 and 4. Existing studies on bricolage (e.g. Baker and Nelson, 2005; Baker et al., 2013) imply the process of making do with whatever at hands as a resource-based response to resource constraint; however, when examining the bricolage theory in the four introduced cases, it is still vague about the process of cognising the constraints, such as disabilities of the entrepreneur, low Japanese proficiency of international students, and making use of resources. The improvisation process of using existing resources in time-constrained circumstances and the frugal innovation process of providing affordable products or services show some limitations when used to examine these phenomena.

Figure 2 Cognition of partial constraint (see online version for colours)



The cases showed some mechanism of cognising constraints. The elements, such as disabilities or low Japanese proficiency, become constraints only when evaluated subjectively based on their ability to function well in specific activities, such as standard working environments that require good health like non-disabled people (case 1) and activities that require high Japanese proficiency (cases 2, 3, 4). If they cannot function

well in those standard environments, activities (e.g.,  $A_1$ ), they are classified as sources of constraint for those resources (disability entrepreneurs and international students) in those activities. Activities will face constraints if they rely primarily on these elements when they do not function well in those activities.

However, the entrepreneur in case 1 and the university in cases 2, 3, 4 have the commonality of regarding element  $A_1$  as a potential source of the constraint of resource  $A$  in the standard contexts  $C_1$ . This study calls *this cognition of partial constraint*. The cognition of partial constraint includes the process of cognising the constraint of a resource that lies in a particular element when used as an input into some activity  $C_1$ , and it does not function well in that activity  $C_1$ .

Furthermore, entrepreneurs intentionally carried out activities not based on  $A_1$  but on other elements because only  $A_1$  is the potential source of these constraints. The cases complement the theory of bricolage, improvisation and frugal innovation by showing that resource-based response implies cognising the partial constraint of resources at hand, exploring and making good use of other elements in such contexts where those elements can function well to explore potential values and increase the overall productivity of those resources at hands. For example, the entrepreneur in Case 1 uses his math, physics, and chemistry knowledge to teach the children at his preparatory school for university entrance exams, skills in music, management skills and his network to raise funds to operate the centre.

In the activities of the community farm (project 1) and community garden (project 2) in case 2, the contribution of international students in the tasks of weeding, removing garbage, making soils, and planting vegetables is not affected much by their low Japanese proficiency since they can still have simple conversations with the locals in Japanese, or translated or supported by their seniors or friends who can speak Japanese and their mother tongues too well. Furthermore, their hard work and information about cultures, food of their countries support the tasks and make their exchanges with the local older people more interesting. In the project, Everyone's Kitchen, the international students' know-how of their traditional cuisines is a potential element that helps them to interact well with the locals. They offer teaching demonstrations and they teach the local participants how to prepare and cook international recipes food. "It was exciting", and "Let's continue international exchange activities" are some of the quotes from the locals after participating in the activities. Low Japanese proficiency did not have a significant impact on the activities in Case 3. The collection of information about uncaptioned pictures taken by the famed photographer Kyoichi Sawada over 50 years ago in Vietnam was carried out in Vietnamese. The students searched for information about the landscapes taken in the pictures by asking their families and friends about possible names and locations of the landscapes in Project 4 'Kyoichi Sawada Project'. Students in Project 5, 'Localise Project', used the knowledge from their own countries' food to make good use of the materials from A Prefecture.

Although financial resources were not abundant in cases 4, *3.11 Disaster Refugee Support*, the students planned their activities based on a deep understanding of the problems refugees were facing, what was left in existing initiatives, and what they could do. Although the students did not have enough resources to carry out the solution activities, they shared the information about the learned problems and the needed resources with other organisations (governments, companies, social organisations, and refugee groups) in their network so that partners could collaborate with the students to co-create the solutions.

## 4.2 Cognition of partial constraint and psychological resilience

In the case study, the authors examined the process of resource analysis and psychological resilience of the entrepreneur. When the authors asked the entrepreneur in Case 1 whether he was worried about running the centre when it started growing, he smiled and answered, “No, I am not worried. I have the skills and network to earn the money or raise funds to sustain the centre”. The cognition of partial constraint has helped the entrepreneur’s behaviours and actions not bound by the constrained element of his resources and the strengthening and utilisation of other elements of his human capital (knowledge of math, physics, chemistry, music and management skills). His network and other resources have enabled him to sustain the centre of orphaned and disabled children.

**Table 1** The relationship between resource-based response and psychological resilience

Margolis and Stoltz (2010)’s psychological resilience		Revision with a focus on the relationship between resource-based response and psychological resilience	
4 main thoughts		Summary of this paper	
Control	When a crisis occurs, consider what can be improved instead of trying to identify all the causes of the crisis (including those that are beyond your control).	<i>Coping behaviours:</i> Instead of wasting time investigating the causes, consider how you can act to respond to the constraints.	<i>Coping behaviours:</i> The path to resolving the constraint can be opened up by selecting and creating new activities that utilise other existing components and the combinations of constraining and non-constraining elements.
Impact	Instead of blaming yourself or others for the problem, focus on your actions’ positive impact.	<i>Responding to impacts:</i> Recognise that no constraints have a permanent impact on every aspect of your life	<i>Responding to impacts:</i> The constraint is caused by a component of the resource X at hand (e.g., $X_1$ ) no longer functioning effectively in a specific activity $C_1$ (partial constraint), not a constraint on the whole resource X (entire constraint).
Breadth	You do not worry about the lasting adverse effects of the crisis on every aspect of your life, and you presume that the underlying causes of the crisis are specific and can be contained.		
Duration	Rather than determining whether this event’s underlying causes are permanent or temporary, consider how to address the problem.		

Similar answers were given by participants entrepreneurs from case 2, “Low Japanese proficiency does not cause any matter since it is not the main input of the activities”, and project 5 in case 3, “We intentionally refused to receive any external funds so that the students can creatively generate necessary resources for the activities. Understanding the matters faced by refugees is more important. Resources can be created or allocated by the students’ creativity and the network”. The activities were carried out based on the strengths of international students and Japanese students, not bound by constrained elements such as low Japanese proficiency in projects 2 through 5 in cases 2 and 3 or

shortage of financial resources in project 6 in case 3. The focus on unconstrained elements of human capital helps reduce the negative impacts caused by the constrained element.

This study proposes the following relationship between resource-based constraint responses and psychological resilience.

- *Responding to impacts* (how to respond to the effects of constraints): Recognise that the constraint is caused by a component of the resource X at hand (e.g.,  $X_1$ ) no longer functions effectively in a specific activity  $C_1$  (partial constraint), not a constraint on all resources (complete constraint).
- *Coping behaviours* (how to respond to constraints): By repeating the above process, the path to resolving the constraint can be opened up by selecting and creating new activities that utilise other existing components (combinations of constraining and non-constraining elements). These coping behaviours are also observed in other studies on disability entrepreneurship. For example, Nguyen (2025) studied the entrepreneurship of five visually impaired entrepreneurs in Vietnam who opened massage therapy parlors and hired other visually impaired employees. Regarding poverty alleviation, self-employment can help individuals experiencing poverty overcome their circumstances (Nguyen, 2013) by not only benefiting the entrepreneurs experiencing poverty but also creates job opportunities for others in similar situations (Nguyen, 2014). Typically, vision helps massage therapists locate acupuncture points on the body, guiding their hands to the critical areas needed for effective deep muscle therapy. However, when visual cues are absent, blind massage therapists intentionally enhance their other four senses – taste, touch, smell, and hearing – and utilise additional methods to succeed in their work and daily lives. They visualise shapes in their minds, creating complete mental images of their clients' physical characteristics, such as height, weight, and musculature. Recognising that few available jobs offer a safe working environment and high income as massage, they continuously strive to improve their massage techniques to provide an optimal experience for each client. They enhance essential skills such as touch, concentration, and memory of techniques and individual clients, which not only compensates for their limited vision but also increases the overall productivity and effectiveness of their services.

It is believed that this led to the suppression of anxiety and confidence in the ability to solve problems; in other words, the construction of psychological resilience.

## 5 Conclusions

### 5.1 Theoretical and managerial implications

One of the most meaningful contributions of this study is to coin the concept of partial constraint, which implies cognising subjectively that constraints come from merely some specific elements of a multi-dimensional object, not the entire constraint of that object. While exploratively unearthing and strengthening other components that comprise resource X ( $X_2, X_3, \dots, X_n$ ), entrepreneurs explored what kind of new activities in which the combination of these components could function. By repeating this process, they can

open up a way to resolve the constraint by selecting and creating a new activity that could utilise existing components. Among these constraints, recognising the limiting situation as a partial constraint and creating activities that are tailored to the discovery, strengthening, and combination of other components that make up resource  $X$  ( $X_2, X_3, \dots, X_n$ ) is thought to lead to the recognition that constraints do not have a permanent impact on the whole resource, as well as to confidence in one's ability to suppress anxiety and solve problems, which is to say, the construction of psychological resilience.

The step-by-step process for recognising partial constraints and leveraging resource components, which can be taught or applied in entrepreneurial training programs, can be as follows (Nguyen, 2019, 2025).

- Dividing an object into many elements, which are subjectively cognised.
- If there is some constraint of that object, remember that this is merely a constraint of some specific elements in contexts where they do not function well. However, one single individual tends to fall into this trap, which equals the partial constraint to the entire constraint. Therefore, working in a team or referring to other individuals' opinions is also essential to refrain from falling into this trap.
- Neglect this constraint, explore other elements of that object, and evaluate those elements in various contexts to evaluate their contribution to the overall productivity of the object. Other individuals' opinions also help explore new elements that one single individual can not find out.
- Strengthen and make good use of those elements in those contexts if the overall productivity becomes higher and the overall functionality becomes more effective.

## *5.2 Limitations*

Though the study examined the relationship between dealing with resource constraint and psychological resilience, it is still unclear when examining other resilience dimensions; for example, how resource-based tactics interact with other factors that affect resilience, such as social networks, cultural norms, or access to resources from the outside world. Answering this question as a future research task would lead to a more nuanced understanding of how resilience is developed.

One of the limitations of this study lies in the sample size. The study includes a small sample size of four cases with six activities from Vietnam as a developing context and Japan as a developed context, potentially limiting the generalisation. Some of the cases are student-based organisations, not companies. The limited variety of participants and contexts may have restricted the research's insights. More cases from various industries and geographic locations can test, verify, enhance the generalisability, and provide a richer view of how resource dynamics influence resilience across different entrepreneurial contexts. It is also essential to test the external validity of the framework using a comparative analysis of these findings against other contexts, such as corporate intrapreneurship or non-profit organisations.

Another limitation lies in the methods of data collection and analysis. Longitudinal studies can examine how an iterative process in constraint resolution influences resilience across time. Future research should include additional cases or longitudinal studies to strengthen the generalisability of the results. Quantitative measures such as statistical analysis or questionnaires can also triangulate the qualitative findings further.

These limitations require careful interpretation and indicate potential tasks for future research.

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