

## **BUSINESS MODEL ADAPTATION TO MACRO-ENVIRONMENTAL SHOCKS IN NON-PROFITS: A CASE STUDY**

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### **ABSTRACT**

*As the business macro- and meta-environments become increasingly turbulent and prone to shocks, organisations must respond strategically to threats and opportunities. Interest in the concept of Business Model Adaptation has been steadily growing, although much of this has been confined to profit-driven organisations. This study explores this concept from the perspective of a non-profit case study in response to the Covid-19 shock, to ultimately build upon existing work and provide theoretical implications for non-profits. This paper thus links the themes of Business Model Adaptation, non-profits, and macro-environmental shocks. Primary qualitative data was gathered through semi-structured interviews and analysed using the thematic analysis approach. The Covid-19 shock and its implications upon the organisation were examined through the Business Model lens. This paper's findings reveal that the charity's Business Model Adaptation is mainly consistent with underpinning literature that is based upon commercial organisations, although certain differences are highlighted. The charity's Value Proposition remained relatively stable, depending upon a flexible Operational Model. On the other hand, the Revenue Model was notably subject to vulnerability amid the macro-economic forces. The findings dictate that diversification of the revenue streams plays a crucial part in building financial resilience, which conforms with previous studies. The aspects of creativity and strategic agility are reiterated throughout the paper in their importance for Business Model Adaptation. Further research is needed to enable a generalisability of the results.*

**Keywords:** *Business Model Adaptation, Environmental Shocks, Macro-environment, Non-profits, Strategic Adaptation*

### **1. INTRODUCTION**

This paper addresses the strategic adaptation of the Business Model (hereafter referred to as BM) amid macro-environmental shocks such as Covid-19. Unlike previous studies, this paper examines the relevant issues from the perspective of a charitable case study organisation. Enriching the depth of empirical data around non-profits in this research gap contributes to social development as it ultimately guides non-profit practitioners, who play important roles in local and global communities (Lakdawalla and Philipson, 2006; Ciucescu, 2009). The findings do not intend to present a definitive answer with a fit-for-all solution for non-profit Business Model Adaptation (BMA) but rather to illuminate some of the surrounding ambiguities. The macro-environment is increasingly unpredictable and chaotic, as events and shocks arise from meta-level trends (Dreher, Gaston and Martens, 2008). It is thus vital for any organisation to develop strategic agility but also a certain resistance to shocks. The BM serves as a useful tool to examine strategic functioning and thus BMA appears to be the ideal concept for responding to turbulent macro-environments. Saebi, Lien and Foss (2017) define BMA it as "*the process by which management actively aligns the firm's BM to a changing environment*". However, much of the existing literature regarding BMA is confined to profit-driven businesses and neglects non-profits (McDonald, Masselli and Chanda, 2019).

This raises two main questions to be explored: How could non-profit organisations successfully adapt their BM to macro-environmental shocks? And how similar is this process to that of for-profit businesses?

## **2. LITERATURE REVIEW**

### **2.1. Environmental shocks**

Environmental dynamism refers to the high degree of turbulence and unpredictability in the business macro-environment that is generated by underlying megatrends such as globalisation, urbanisation, and digitalisation (Voelpel, Leibold and Tekie, 2004; Gregor, 2019). This environmental turbulence drives sudden shocks and events with a potential legacy on organisations (Li and Liu, 2014). Meyer (1982) refers to 'environmental jolts' as sudden and unprecedented events which impact organisations on a "disruptive and inimical level". Similarly, Shepherd, Douglas and Shanley (Shepherd, Douglas and Shanley) hone the term 'Environmental shock' to emphasise the direct impact which immediately jeopardises the organisation's activities. To maintain consistency, this study uses the more recent term of 'Environmental shock'.

### **2.2. The business model**

According to Chesbrough and Rosenbloom (2002), the BM concept dates back to Chandler's seminal book 'Strategy and Structure' from 1962. Zott and Amit (2010) explore the functioning of the BM as a holistic instrument to create, deliver, and capture value. Therefore, the core components of the BM are identified as Value Proposition (VP), the Operational Model for Value Delivery (VD) and the Revenue Model for Value Capture (VC). Focusing on a single component is dangerous as it may lead to perplexing perceptions of the situation and therefore overfitting solutions; rather, all facets of the BM are considered holistically. In line with the growing environmental dynamism, the literature stream of BM dynamics within the management field has been gaining attention over recent years (Teece, 2010). Concepts such as 'BM Innovation' and 'BM Evolution' appear in literature, although they are of little relevance as they refer predominantly to contexts of market competition. In the case of macro-environmental shocks, the concept of BMA is deemed most suitable, and it is defined by Saebi, Lien and Foss (2017) as "the process by which management actively aligns the firm's BM to a changing environment". A dynamic adaptation would enable the firm to seize opportunities and sustain strategic resilience. In their seminal work on non-profit BM dynamics, McDonald, Masselli and Chanda (2019) highlight the need for further investigation of this concept from a non-profit perspective.

#### *2.2.1. The perception of opportunities and threats*

In management literature, macro-environmental change can be perceived by an organisation as either beneficial or threatful (Paul, Mohsin and Abu Ahmed, 1998; Corneliu, 2018; Trzcielinski, 2020). An opportunity is defined as a situation in the business's environment that promotes the fulfilment of goals through the exploitation of disposable resources (Trzcielinski, 2020). According to Schumpeter (2013), it is a market disequilibrium that generates opportunities. On the other hand, Kirzner (1999) claims that opportunities already exist, and it is up to an alert entrepreneur to recognise and pursue them. Despite the minor variations in perspectives, no fundamental contradiction has been inferred between the two schools of thought (Trzcielinski, 2020). Both theories refer to opportunities and agile entrepreneurs. Although these theories are based on competitive markets, they are both applicable in contexts of environmental shocks and events, which represent substantial disequilibrium and would therefore create or make opportunities more visible.

### **2.3. Pressures against Business Model Adaptation**

The process of responding to opportunities and threats requires resources such as time and capital, as well as the ability to defeat inertia and resistance to change from stakeholders. Saebi, Lien and Foss (2017) carry out a study to prove that organisations are more likely to adapt their BM under the circumstances of identified threats rather than opportunities and claim that organisations do not typically tend to implement significant changes unless obliged to by existential threats. Nevertheless, Trzcielinski (2020) dictates that agile enterprises tend to focus on opportunity exploitation rather than survival and defence against threats. Barriers to strategic adaptation include time pressure, bureaucratic complexity (depending on the organisation size), financial capacities, and pressure from stakeholders to perform and maximise profit (Kuokkanen et al., 2009; Corbo, Pirolo and Rodrigues, 2018). In cases of highly unpredictable or sudden events, time is often limited, whereas in a financial crisis capital would present a problem. The inertia of existing BMs and ‘conventional’ practices tend to form an inescapable rigid structure (Voelpel, Leibold and Tekie, 2004; Saebi, Lien and Foss, 2017). Unless a change is crucial, it is likely to witness a certain degree of resistance to change in the BM, be it psychological or bureaucratic (Saebi, Lien and Foss, 2017). Such attachments to the status quo are dangerous for strategic adaptation and should be dealt with by injecting structural agility.

### **2.4. Non-profit organisations**

Ciucescu (2009) defines non-profits as organisations that prioritise altruistic causes (social, cultural, etc) rather than profit generation. Empirical research on these organisations is meagre in comparison to the rich volumes of work on for-profits (Maguire, 2009). However, according to Lakdawalla and Philipson (2006), the underpinning theory of for-profit businesses applies directly to non-profit organisations, given that the functioning of both types of organisations is indistinguishable. Nonetheless, Lakdawalla and Philipson (2006) indicate the importance of further research to build a stronger understanding of the nature of the non-profit sector.

#### *2.4.1. Non-profit BMA*

Non-profit VP and VD may adapt to environmental shocks to a certain degree (McDonald, Masselli and Chanda, 2019). However, given that non-profits prioritise the social cause rather than profit, their VP is more likely to be regarded as undeferrable and maintain their vision and mission statements. As for the Revenue Model, although charitable organisations do not prioritise profits, they require VC to remain active and self-sustainable (McDonald, Masselli and Chanda, 2019). Revenue may accrue in the form of donations, grants, fundraising events, or nominal fees charged to cover service/product costs. Chang and Tuckman (1991) conducted a study that suggests that a high concentration of revenue streams may result in a financial vulnerability of non-profit organisations. They oppose the generalisation that non-profits are reliant on a single revenue stream, although their findings suggest that revenue is concentrated to a certain extent. Therefore, during times of external shock, such concentrated revenue streams may encounter obstacles and expose the organisation to financial threats. Additionally, evidence dictates that the devotion of non-profits to raise funds often affects its ability to diversify revenue concentration (Chang and Tuckman, 1994). While the substantial majority of empirical research regarding macro-environmental BMA refers to profit-maximising corporations (Banham, 2010), the importance of non-profits calls for further research (Lakdawalla and Philipson, 2006). Non-profit organisations are often ill-understood, as a result of incorrect assumptions and a lack of empirical research, and are therefore neglected (Anheier, 2000). During periods of environmental dynamism, non-profits must also seize opportunities and defend against macro-environmental threats (McDonald, Masselli and Chanda, 2019).

However, very little empirical research is available to support this argument or to provide examples of opportunities and threats that non-profits encounter (McDonald, Masselli and Chanda, 2019).

### 3. RESEARCH METHODOLOGY

The adoption of a case study research method was deemed most adequate to facilitate the exploratory collection of initial findings within the literature gap (Yin, 1994). The selected organisation is a local UK charity with a mission statement of facilitating the social integration of people with physical and learning disabilities into the local community; the charity's VP is summarised as "friendship" (Table 1). Primary data was collected through semi-structured interviews with the charity's representatives, seeking depth rather than breadth (Polkinghorne, 2005; Gill *et al.*, 2008). The organisation employs 7 paid members of staff and 150 volunteers, who work together to deliver value through social events and activities and to raise funds for the charity. As a result of the Covid-19 pandemic (macro-environmental shock), the charity was obliged to adapt its BM, which thus qualifies it as a relevant case study. All interview participants hold senior-level positions and have worked for the charity for many years, which enabled them to provide reliable and insightful qualitative data. Each participant focussed on their represented BM component: the first participant (P<sub>1</sub>) reflected upon the VP during Covid-19, the second participant (P<sub>2</sub>) provided insight into the Revenue Model, and the third participant (P<sub>3</sub>) explained the impact upon the operational model. Before the collection of data, the study's ethical considerations were approved by Heriot-Watt's School of Social Sciences, fully complying with research ethics regulations. Interviews were conducted online via videoconference due to safety restrictions at the time of the research. The average interview duration was 45 minutes (in the range of 30-60 minutes), and in total generated 28 pages of single-spaced verbatim transcripts. The thematic analysis approach was then implemented to organise and identify themes and patterns that emerged from the findings (Braun and Clarke, 2006). The most notable limitation of the proposed methodology is the limited time availability (Collis, 2014). Thus, to generalise the final results and confirm a pattern, it would be necessary to carry out further research on a larger scope (Saunders, Lewis and Thornhill, 2019).

### 4. FINDINGS AND DISCUSSION

Figure 1 summarises the key findings that are drawn from the set of data and the discussion that follows. Some of the results provide direct support of the underpinning literature as represented by the green lines, whereas the red lines suggest a lack thereof. The conformities prove the similarity of non-profit BMA to that of for-profits, which ultimately supports Lakdawalla and Philipson's (2006) theory.

#### 4.1. Environmental shock

There is a clear consensus in identifying the Covid-19 pandemic as the sole major environmental shock faced by the organisation. The participants indicated that the organisation had been resilient to environmental forces prior to Covid-19 and that this was the "*first time*" that such a situation occurs. Per the theory proposed by Gregor (2019), the shock indeed emerged as a result of underlying megatrends, namely globalisation and urbanisation (Sigler *et al.*, 2020). The pandemic fits into the definition of 'environmental shock' provided by Shepherd, Douglas and Shanley (2000) and by Meyer (1982), as reviewed earlier: it entailed 'sudden and unprecedented events' that impacted the charity on a 'disruptive and inimical level'. The interview participants reported that Covid-19 directly jeopardised the organisation's activities, causing interruptions on a substantial scale. P<sub>1</sub> reported the two chief consequences of the environmental shock: "*Any face-to-face contact had to be stopped and that's what we were all about...The other thing is fundraising.*"

The highlighted struggles are predominantly financial and practical, both of which are reflective of the macro-trends directly resulted from the environmental shock: practical constraints such as social distancing measures and the subsequent macro-economic crisis. This foreshadows the BM aspects that would be most impacted by the shock: VD and VC. In commenting on the evolution of the shock and its consequential circumstances, P<sub>1</sub> said that *“they’re going to last longer”*. An element of uncertainty is an emerging sub-theme that was reiterated throughout the interviews as the participants admitted they do not know when the charity *“could continue doing events.”* This conforms with the underpinning literature in the sense that the nature of the environmental shock is highly unpredictable and turbulent (Corbo, Pirolo and Rodrigues, 2018; Gregor, 2019).

#### 4.2. Non-profit BMA

The case study BM conforms with the underpinning literature in terms of BM structure as explored by Teece (2010) and Zott and Amit (2010). It has clear VP, VD, and VC (Table 2). However, each component varies slightly in details, such as revenue sources (sale transactions vs donations). Nonetheless, there is a large degree of similarity with commercial businesses, upon which the large majority of the literature lays. Regarding BMA, the participants explained both the holistic process and specific viewpoints of the different components, presented in what follows.

BM aspect	Case study organisation
Value Proposition (VP)	Friendship and social integration for people with special needs. Beneficiaries gain skills, confidence, more social lifestyles, etc.
Value Delivery (VD)	Social events and activities delivered by staff members and volunteers such as art classes, day trips, educational projects, etc.
Value Capture (VC)	Direct donations, fundraising events, grants, etc.

Table 1: A brief overview of the case study organisation through the BM lens

##### 4.2.1. Increased demand for Value Proposition

During Covid-19, the organisation witnessed an increase in demand, as a result of the intensified sense of loneliness among people with disabilities, and P<sub>1</sub> reported an increased dependence upon the charity. Consistently, P<sub>2</sub> explained that not only the beneficiaries continued to require social interaction, but the charity’s demand increased significantly as the charity became a *“lifeline”*. This finding contrasts with the generally reported impact of Covid-19 upon for-profit businesses, such as the 17.5% decline in demand for exported products and services<sup>1</sup> (Gough, 2021). This could suggest an important difference between for-profit and non-profit BMA, and link with the perspective that the non-profit’s VP is undeferrable and would be unlikely to re-establish its social goal. Thus, one may assume that the main alterations would be within VD and VC, as is also suggested in section 4.1. Although this may reflect a trend among the larger non-profit sector, further research is required to generalise a pattern for other organisations. Further paths for discussion follow from the reported increase in demand, such as whether it was interpreted as an opportunity or a threat for the organisation. Although underpinning theory commonly paints demand as a positive and desirable state (Saebi, Lien and Foss, 2017), the current findings provide evidence to suggest otherwise as P<sub>3</sub> explains: *“We actually cannot meet up and that is 100% what we’re about.”* Additionally, the demand in this case directly challenges the remit of the charity, which aims to minimise loneliness. Therefore, in this case, the evidence dictates that an increased demand presents a threat for the organisation in meeting goals.

<sup>1</sup> Certainly, there have been exceptions such as the case of Zoom, which benefitted significantly from Covid-19. Although, such exceptions are not representative of the general trend.

This could also trigger pressure from donors to maximise utility, as discussed in the literature review. Nonetheless, one financial opportunity arises from the increased demand for loneliness relief. The participants reveal that the organisation is often ill-understood and overlooked upon. P<sub>2</sub> explains this issue and the importance of promoting social integration among this niche group: *"What we're considered to be is peripheral. It's not health, it's not education, it's sometimes taken for granted quite, that loneliness thing, and quite how important feeling connected to a community it is to somebody's mental wellbeing."* However, as a result of Covid-19, the organisation was recognised as essential for mental wellbeing for the first time and thus gained access to new revenue streams such as public grants. The organisation's VP stood out in its importance and presented a lucrative opportunity that interplayed with VC.

#### 4.2.2. Operational model of value Delivery

During Covid-19, the organisation adapted its VD to provide services via online platforms, which meant that the premises were not being used. This is an operational issue that also links to the Revenue Model as it uses financial resources. According to the interview participants, VD adaptation required creativity and P<sub>1</sub> explained that the charity offered devices to those who did not have any, to enable them to facilitate access to online activities. However, the participant also explained that the beneficiaries who did not own any devices are those who resist change and would not accept the new VD in any case. This is one example of change resistance as highlighted by Beerel (2009) and is comparable to the resistance from stakeholders in commercial BMA. For activities such as art clubs and cooking classes that require specific ingredients, the organisation creatively delegated staff and volunteers to deliver packs with the required ingredients and tools to the participants, adhering to social distancing measures. According to P<sub>2</sub>, this enabled the beneficiaries *"to stay connected...to have something to structure their day and squash their boredom."* As for the challenges P<sub>3</sub> reported conducting online volunteer inductions and teaching some beneficiaries with learning disabilities to operate technology, which in the beginning *"was really difficult"*. The lack of personal interaction was reported to negatively impact the motivation of volunteers and staff. This emerging sub-theme links to the *"anxiety"* that P<sub>2</sub> described in response to the uncertain circumstances. Similarly, P<sub>2</sub> explained that furloughing staff also negatively impacted motivation: *"you lose the attachment with your staff, and that's not a positive thing from anyone's point of view"*.

#### 4.2.3. Revenue model of Value Capture

Despite the altruistic nature of the charity, revenue generation is still crucial in order to remain self-sustainable. P<sub>2</sub> reports that the majority of the organisation's revenues comes in the form of direct donations, whereas fundraising events and grants are estimated to make up the rest. This maintains consistency with the work of Chang and Tuckman (1991), supporting the positive correlation of a diversified Revenue Model and financial resilience to environmental shocks. P<sub>2</sub> specifies that the charity is reliant on various VC streams, which has contributed to reducing its financial vulnerability during Covid-19. Additionally, P<sub>1</sub> commented that the organisation had not been impacted by the 2008 financial recession, providing further evidence of this financial resilience to macro-environmental shocks. According to P<sub>1</sub> and P<sub>2</sub>, the organisation had generally been independent of *"government or local authorities for funding"*, which was one factor of its resistance. Nonetheless, P<sub>1</sub> identified that the VC was the *"biggest struggle"* out of the three BM components during Covid-19. This was a result of endangered revenue streams rather than increased costs, as the combination of a poor macroeconomic scene and social distancing measures challenged all of the organisation's revenue sources, as explained by P<sub>1</sub>: *"A lot of people lost their jobs and income was a struggle so a lot of our donors in that way were impacted. The second thing is a lot of fundraising events all had to be cancelled."*

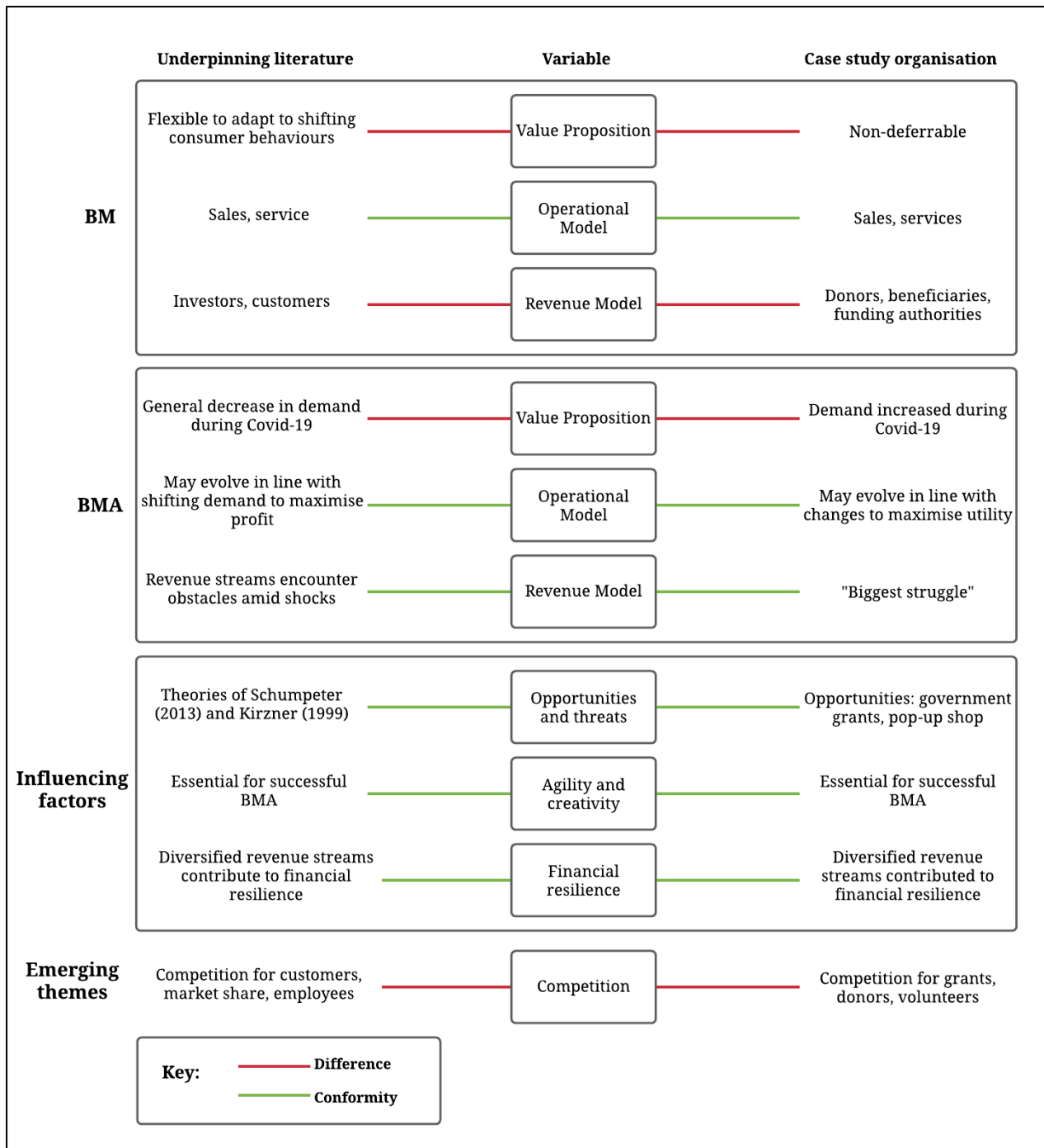


Figure 1: Visual diagram of the case study findings

On the other hand, P<sub>1</sub> and P<sub>2</sub> identified lucrative opportunities such as access to public grants. Additionally, the charity reached out to local businesses and received donations in the form of branded items and leftover stock. Then the unused premise was creatively converted into a pop-up shop, thereby adapting itself to the existing government guidelines that allowed shops to be open. According to P<sub>1</sub> and P<sub>2</sub>, this improvised revenue stream was a great opportunity which “made quite a lot of money” to mitigate the cost of the unused office. Other measures included furloughing some staff members to preserve financial reserves. According to P<sub>2</sub>, this harmed staff motivation, although it enabled the organisation to adapt its Revenue Model to the macro-environmental shock.

## 5. CONCLUSION

This paper develops an initial theoretical understanding to constitute the foundation for this new path of empirical research. The research findings imply certain consistencies and differences concerning the underpinning literature of commercial BMA and the case study organisation. Additionally, the findings confirmed a positive correlation between certain organisational characteristics and the perceived success of the case study BMA. For example, the organisation's diversified revenue stream provided financial resilience during the Covid-19. The research contributes to expanding the research of McDonald, Masselli and Chanda (2019). It is important to reiterate at this stage that the findings are specific to the current case study and are not representative of the whole non-profit sector. Therefore, further research is required to generalise the findings. As demonstrated in the previous chapter, the research findings largely conform with the existing literature, based upon commercial businesses. The insight of the findings is twofold. First, this helps in concluding the similarity of commercial and non-profit organisations, given that both business types fit well into the BM framework. Therefore, the functioning in response to macro-environmental shocks should also showcase a degree of comparability.

### 5.1. Practical implications

The data indicates the relevance of the BM within non-profits, which may assist in guiding practitioners. For example, the assessment of the environmental shock through the BM lens should continue to be incorporated by charitable organisations. The importance of certain highlighted factors such as creativity and strategic agility in response to is essential and special attention should be paid to the VC and diversification of revenue streams to develop financial resilience. Finally, non-profit leaders may be encouraged to learn from their profit-driven counterparts during times of macro-environmental shocks, as there are clear similarities in terms of strategic BMA.

### 5.2. Limitations and future research

Two chief limitations follow from this paper. First, in anticipation of the limited timeframe and resources available for the study, the scope was restricted to a single case study organisation. Therefore, generalisations about the applicability of the measures to non-profits as a whole are problematic. Even among the subpopulation of small-sized charities, the applicability of the measures may vary substantially. Consequently, the obtained data was rich in nature but presented a limitation in terms of generalisability. Second, the Covid-19 pandemic is yet to be concluded at the time of writing this paper. This limitation may present a threat to validity and reliability in the long term. Therefore, the macro-environmental shock may still evolve further over time. Future research may be conducted once that environmental shock is announced 'over', although at this point it is premature to predict a definite end to the situation.

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