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Business model renewal and firms' performance: the role of preventive vs. promotion mindsets.

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Abstract

This study explores the role of an entrepreneurial mindset in buffering the relationship between the recurrent business model renewal and firms' performances over time. Using the Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE), a 3-year longitudinal study, this paper examines the role of preventive and promotion mindsets in business model renewals and firm performance. A sample of 599 young firms (in the first wave) was used in exploring the role of entrepreneurial mindsets in business model renewals and firm performance. Factor and Regression analysis were the main methods used to understand the relationship between promotion mindset versus prevention mindsets in the business model renewals. The results showed that the impact of business model renewal was greater for promotive mindset than preventive mindset entrepreneurs in the beginning. Over time, subjective performance (as a consequence of business model renewal) appears to improve slower among promotive mindset than the preventive mindset entrepreneurs. However, for objective performance, the improvement seemed to be slower among promotive mindset but non-significant effect among the preventive entrepreneurial mindsets.

Keywords: Business Model, Entrepreneurs, Mindsets, Regulatory Focus Theory, Latent growth

1.0 Introduction

Business model renewal is about renewing firms' strategic directions (e.g. George & Bock, 2011; Schmitt, Raisch, & Volberda, 2016). While there are no generally accepted definitions of a business model (George & Bock, 2011; Zott, Amit, & Massa, 2011), this paper views a business model as a business plan which influences entrepreneurs' decision-making process, methods, and practices. Entrepreneurs respond to exogenous environmental, technological and regulatory shocks by changing or renewing their business plans (Martins, Rindova, & Greenbaum, 2015; Pandya, Sukumar, Jafari-Sadeghi, & Tomlins, 2021). Business model renewal often has the intent and ability to deliver positive performance outcomes (Agarwal & Helfat, 2009). Indeed, the ability to modify a business model and its primary elements is increasingly considered as a source of competitive advantage in responding to dynamic environments.

Mindset is “the [cognitive] ability to rapidly sense, act, and mobilise, even under uncertain conditions” (Haynie, Shepherd, Mosakowski, & Earley, 2010). Entrepreneurs change their business models to improve their performance and respond to environmental changes (Doz & Kosonen, 2010; Gulati & Puranam, 2009). While past research has observed the impact of the business model on firms’ performance, there is limited knowledge about the managerial mindset behind these changes (Oh & Sawang, 2021). This mindset is the thinking process of aligning firms with their standards and goals (Brockner, Higgins, & Low, 2004). The current study considers the Regulatory Focus Theory (RFT) as our cognitive framework, explaining that entrepreneurs may regulate their action through preventive mindset (security-related) or promotion mindset (nurturance related) (Higgins, 1998). Much of entrepreneurship research, which adopted RFT as the entrepreneurial cognitive framework (e.g. Brockner et al., 2004; Covin & Miles, 2006; Covin, 1991) frequently assume that entrepreneurial and opportunity-driven (promotion) characters (opposing to prevention) have a stronger positive influence on new venture performance (Wiklund & Shepherd, 2011).

From a cognitive perspective, entrepreneurial orientations may influence the promotion of business model renewal (Aspara, Hietanen, & Tikkanen, 2010; Wiklund & Shepherd, 2003; Zott & Amit, 2008). Entrepreneurial oriented firms pursue innovativeness, proactiveness, and risk-taking to improve venture performance (Covin & Lumpkin, 2011; Ruiz-Ortega, Parra-Requena, Rodrigo-Alarcón, & García-Villaverde, 2013). Business model renewal is aimed to develop a competitive advantages for firms (Borch, Huse, & Senneseth, 1999). However, firms may response and implement business model renewal differently depending on the underlying mindset or cognition. For this reason, entrepreneurs with promotive mindset, as opposing to preventive mindset, may engage more radical approach in renewing their business models. Drawing from the RFT, our study thus proposes that entrepreneurial mindsets may shed light on the relationship between business model renewal and firms’ performances. Our study aims to explore “to what extent can entrepreneurs’ promotion/preventive mindsets further explain the relationship between the business model renewal and firm performances?” Using three-wave data, this paper examines the moderating roles of an entrepreneur's mindset on their firm's business model renewal and subsequent firm performance. The results note that both subjective and objective performance is influenced by preventive/ promotive mindsets.

The contributions are twofold. Firstly, we contribute to the literature on business model renewal by focusing on the post-launch phase of new ventures, i.e. young firms, which are operational and less than five years old (Davidsson, Steffens, & Gordon, 2011). Prior studies have extensively investigated how entrepreneurs go about developing their business before the launch, but there is limited insight into business model renewal after the post-launch stage (c.f. Baker, Miner, & Eesley, 2003; Nicholls-Nixon, Cooper, & Woo, 2000). Especially within the entrepreneurship content, the research of business model renewal often focused on business model renewal as a tool in identifying new business opportunities for new ventures (e.g. Brettel, Strese, & Flatten, 2012; Franke, Gruber, Harhoff, & Henkel, 2008; Tracey & Jarvis, 2007) or how to design the business model that focuses on the relationship with their key customers (Brettel et al., 2012). In the pre-launch stage, firms are more likely to engage with business model renewal because they will not have their solid business model fully developed at inception. It is also crucial to understand the process of business model renewal in the post-launch stage. Young firms often struggle with liabilities of newness which require dynamic actions to reorganize their capabilities and strategies thus business model renewal is an important process (Shepherd, Douglas & Shanley, 2000) This study aims to shed some light on this matter.

Secondly, we build on a small but growing literature on strategic renewal in new ventures by investigating the moderating influence of entrepreneurial mindsets (prevention versus promotion) on how business model renewal shapes firm performance. Our study provides a more detailed view of the assumed positive effects of opportunity-driven business model renewal on performance over time. The remainder of the paper is structured as follows, the next section details the literature review and hypothesis development, while the third section illustrates the methods used. The final section explains the results of the paper and the concluding section highlight the contribution and further scope of work in this domain.

2.0 Literature Review and Hypothesis Development

2.1 Business model renewal is about the replacement of firms' strategic directions

Strategic renewal is well established as a concept regarding established entrepreneurs, but does the

concept of strategic renewal apply to new firms? It is clear that new firms are still in a more fluid stage than established firms (Gersick, 1994; Nicholls-Nixon et al., 2000), but this does not have to imply that strategic renewal is not a meaningful concept regarding new firms. Despite the diversity of strategic renewal literature, there seem to be three aspects that are central to the concept of strategic renewal. There is a wide consensus on the first two aspects, strategy renewal has to be “strategic” and about “renewal” (Agarwal & Helfat, 2009; Schmitt et al., 2016). Opinions diverge on the third aspect of whether strategic renewal includes changes to the organisational structure or is limited to changes in the strategy.

First, strategic renewal involves a *strategic* aspect. We follow Guth and Ginsberg (1990) in defining strategic renewal as “the transformation of the organisation through the renewal of the key ideas on which they are built”. These key ideas include a deep understanding of the company's products/services, processes and how to approach customers. If these are strategic then they will have an impact on long term success or failure for a business in some way (Grandi & Grimaldi, 2005; Mahdiraji, Beheshti, Jafari-Sadeghi, & Garcia-Perez, 2021). Small businesses and start-ups often have narrower strategies than large established firms that may utilise a range of strategies at any given time (Kuratko & Audretsch, 2009), which makes any alteration of a new venture strategy a core change. Small businesses and start-ups often have little room to recover from taking an irrelevant direction (West & Meyer, 1997), suggesting renewal in new firms is very strongly tied to success and failure (Ben-Menahem, Kwee, Volberda, & Van Den Bosch, 2013).

Second, it is about *renewal*, meaning that it “is intentionally limited to the phenomenon in which new business strategies differ significantly from past practices in ways that better leverage the firm’s resources or more fully exploit available product-market opportunities” (Covin & Miles, 2006). There is debate whether we can speak of an “established” strategy in new firms. Some authors refer to strategic improvisation (Baker et al., 2003) or strategic experimentation (Nicholls-Nixon et al., 2000), because of the strategy being in flux and under development. Looking at a firm from a temporal perspective, in the very early stages of the venture creation process there is no identified strategy (Hitt, Ireland, Camp, & Sexton, 2001), but at some point in the life of a venture, one can speak of a strategy. Bhawe (1994) argued the transition point is the first sale. A first sale justifies that the business concept is good and that the products and markets are connected. Prior to the first sale, those links are conceptual to this as a “design-precedes-execution” approach

towards new firms. The pre-launch process of venture creation is one of conceptual, iterative experimentations with various strategies to find the right business concept. After first sales, it is about the execution of the selected strategy. After the first sale, changes to the selected strategy have conceptually moved from strategy development or experimentation to strategic renewal.

Regarding the third condition of strategic renewal, there is less consensus. The dominant stream of research seems to view strategic renewal as conceptually distinct from changing organisational structures and systems (Covin & Miles, 2006; Dess et al., 2003). Others argue that strategic renewal includes changes to the administrative systems, as they are intrinsically linked (Miles, Snow, Meyer, & Coleman, 1978; Volberda, Baden-Fuller, & Van den Bosch, 2001). Those administrative systems are a main source of inertia and effective renewal may only occur when those systems are also changed (Burgelman, 2002). The latter stream of authors does recognise that changes to organisational forms are not always needed as part of a renewal process (Volberda et al., 2001). In other words, the inclusion of organisational changes is dependent on the context and type of renewal studied. In the context of new firms, the inclusion of administrative systems may not be appropriate, as they are often very limited structures and systems to be able to speak of renewal (Nicholls-Nixon et al., 2000). Moreover, administrative systems in new firms are characterised by high fluidity (Gersick, 1994), thus the inclusion of organisational systems in renewal processes from the viewpoint of inertia has limited validity in new firms.

The study of business models has seen a shift from descriptive to analytic research. The earlier phase featured an affinity for start-ups and e-business models, but later exploration became more comprehensive with attention given not just on components or subcomponents within these types of model themselves—but also their design implementation change processes as well (Roth, Melkonyan, Kaivo-Oja, Manke, & Dana, 2018). Drawing from the above discussion, our study defines business model renewal as the level of changes in products, processes, marketing and customers since the business first started trading on regular basis. Business model renewal processes have the purpose to produce positive performance outcomes (Agarwal & Helfat, 2009). Prior works have also confirmed the relationship. The change can be seen as trial and error actions that are driven by the environment and learning (Nicholls-Nixon et al., 2000). Entrepreneurs work towards their first “steady-state”, and may not have their competitive advantage fully developed at inception (Nicholls-Nixon et al., 2000). Thus, these entrepreneurs need to learn and experiment which involves

frequent changes to the emerging business idea to shape a more unique offering. Learning takes place through trial and error, with entrepreneurs learning from their successes as well as mistakes (McGrath, 1995). This learning and change in the business idea is gradual, so the more strategic change entrepreneurs make, the higher they expect the venture's unique advantage and performance to be (Crossan & Berdrow, 2003).

2.2 *Business model renewal and firms' performance*

Business model renewal is the process of transforming a company so that it can respond more effectively and efficiently to changing external dynamics (Secinaro, Brescia, Calandra, & Biancone, 2020; Veit et al., 2014). There is a positive link between business model renewal and firm growth (Covin & Miles, 1999; Markides & Sosa, 2013; Shu, De Clercq, Zhou, & Liu, 2019). Companies that are willing to renew their business model can see an improvement in financial performance. This is because they shifted focus and committed themselves fully towards what's best for them instead of continuing with old strategies which no longer work. The following list includes some classic examples: Dell changed its approach by focusing more heavily upon selling computers rather than going after enterprise clients; Southwest Airlines made a shift from being primarily ground carrier towards flying passengers began using flights purely as public transportation. The past literature (e.g. Covin & Miles, 1999; Markides & Sosa, 2013; Shu et al., 2019) empirically demonstrates a cross-sectional regression between business model renewal and firm growth. The current study therefore extends this knowledge by examining the longitudinal effect between business model renewal and firm performance, to understand its impact over time.

***Hypothesis 1:** Over time, the business model renewal positively influences firm performance, such that the recurrent business model renewal improves firm performances.*

2.3 *Entrepreneurs' mindset through the Regulatory Focus Theory (RFT)*

From a cognitive perspective, managerial mindsets refer to core beliefs (Walsh, 1995), mental maps, and what managers pay attention to (Eggers & Kaplan, 2009). It is the interpretive role of managers that allows us to understand organisational outcomes (Eggers & Kaplan, 2009; Woo,

Daellenbach, & Nicholls-Nixon, 1994). Regarding entrepreneurship literature, many different typologies have been used to indicate strategic mindsets, which can be conceptualised based on the Regulatory Focus Theory (RFT; Higgins, 1997). The RFT is widely established in behavioural and psychological sciences study. The RFT explains how individuals are motivated to approach pleasure and avoid pain. Accordingly, there are two distinct self-regulatory systems, i.e. promotion focus and the prevention focus which can explain ones' action. Both self-regulatory systems exist at any time, but one system will dominate the other. The outcome depends on the triggered situations and in the absence of triggered situations, the established personality trait of the individual would take charge (Crowe & Higgins, 1997; Higgins, 1998). Higgins (1997, 1998) defines promotion focus as nurturance related, whereas prevention is security-related and impact ones' action. This type of cognitions can influence creativity (Liberman, Idson, Camacho, & Higgins, 1999), idea generation (Salter, Wal, Criscuolo, & Alexy, 2015), opportunity recognition (Brockner et al., 2004), openness to change (Jackson, Hill, Payne, Roberts, & Stine-Morrow, 2012). Past studies conclude that strategic differences based on regulatory foci can determine how problems are solved and decisions are made (Higgins, 1998). In the behavioural science context, the relationships between promotion and prevention focus on work-related performance are consistent. The meta-analysis of 77 studies shows that promotive mindset was associated with positive work outcomes while preventive mindset was associated with negative work (Lanaj, Chang, & Johnson, 2012).

In the business context, entrepreneurial orientations are defined based on archetypes by Miles et al. (1978), and in particular their defender and prospector type. Covin (1991) argued that the conservative (preventive) versus entrepreneurial (promotion) firm or posture typology was better able to grasp the variance in strategies than some prior models such as Miles and Snow's archetypes. In the entrepreneurship literature, these scales have evolved in the entrepreneurial orientation construct (Cappelli, Czarnitzki, & Kraft, 2014; Lumpkin & Dess, 1996). Entrepreneurial orientation is often measured by a firm's innovativeness, risk-taking and pro-activeness (Kreiser, Marino, & Weaver, 2002), these characteristics are aligned with promotion focus. This is because entrepreneurs with a promotion focus are motivated by potential gains that often comes with substantial risks. As such, promotion focus is found positively related to entrepreneurial orientation while prevention focus is negatively related to entrepreneurial orientation.

Entrepreneurs with the preventive mindset focus more on minimising losses, which is a reactive and

risk-averse approach (Brockner et al., 2004). Entrepreneurs with a preventive mindset are more likely to take a rational, causal approach to plan the strategic direction of the venture (Sarasvathy, 2001). They are more risk-averse and so they gradually commit more resources instead of investing a lot of money all at once. This is a common strategy for new product development in established companies. (Cooper, 1986; Jafari-Sadeghi, Sukumar, Pagán-Castaño, & Dana, 2021). On the other hand, entrepreneurs with the promotion mindset focus on maximising opportunities, which is a proactive, aggressive and innovative approach (Lumpkin & Dess, 1996). People who have a promotion mindset may also be able to take advantage of more opportunities that come along. They will want to get the most value possible from the opportunities they pursue. This means that they need to start taking advantage of opportunities when there is still a lot of uncertainty. Under these circumstances, they cannot rely as much on planning but need to be more improvisational (Baker et al., 2003; Jafari-Sadeghi et al., 2021). Following this entrepreneurial mindset, it is likely that these entrepreneurs search for and experiment with opportunities that can provide them with a strong competitive advantage.

The relationship between the RFT and sunk cost may further explain the possibility that preventive mindset entrepreneurs may engage less in renewal behaviour than the promotion mindset entrepreneurs. An experimental study by Higgins et al. (2000), examined this relationship by asking research participants to imagine themselves as an airline president. They invested US\$10 million for an undetectable plane. They discovered another firm has developed and launched the same product when their product is at 90% completion. The preventive entrepreneurs were more willing to abandon the initial course of action, despite the sunk costs, while promotion entrepreneurs would engage in the sunk cost fallacy and continue with the project. Optimism, self-efficacy and internal locus of control are characterised among promotion focus (Crowe & Higgins, 1997). Under a highly uncertain environment (e.g. changing business strategy), promotion founder-owners are more likely to engage in a risky decision (e.g. sunk cost fallacy).

2.4 Preventive-Promotion mindsets as a buffer between business model renewal and outcomes

With the intention to deliver positive performance outcomes, entrepreneurs learn and experiment and create opportunities over time through business model renewal (Ardichvili, Page, & Wentling, 2003; Rae, 2017). Entrepreneurs are likely to frequently change their business idea as they progressively learn more about how to best exploit opportunities. Business model renewal is seen

as a contributing factor to a firm's performance, but there is limited knowledge about the managerial mindset behind these changes (Haynie et al., 2010; Oh & Sawang, 2021).

Entrepreneurial mindsets play an essential role in the business model renewal. It is the interpretive role of entrepreneurs that allows us to understand entrepreneurial outcomes (Eggers & Kaplan, 2009; Woo et al., 1994). Yet, the relationship between the renewal and its outcome could be influenced by the different mindsets among entrepreneurs. Managers are often the first to recognise the need and initiate business model renewal. Their interpretation of whether the environment changes is a threat-oriented or opportunity-oriented event would influence the renewal process. The difference between promotion and preventive mindsets is not only the goal orientation (maximising profits or minimising losses), but it is also about the outcome sensitivity (Crowe & Higgins, 1997; Higgins, 1998).

The research of RFT in entrepreneurial context is somewhat limited, in particular the role of RFT as a moderator (Ciuchta, Letwin, Stevenson, & McMahon, 2016; Hmielecki & Baron, 2008). The relevance of information selected by individuals depends on their regulatory focus. . For example, the researchers found that the impact of two-sided advertisements¹ was moderated by participants' regulatory focus. When people are more focused in their evaluation, they saw less value for this type of advertising because it decreased with time and became a waste since there would always be another side to an object or event portrayed later down the line which negates any positive benefits gained from seeing only one side early on (Florack, Ineichen, & Bieri, 2009). Further, a study of 1,000 new ventures reveals that the interactions between entrepreneurs' regulatory focus and external environment perception influence firms' performance (Hmielecki & Baron, 2008). Promotive entrepreneurs also demonstrate a high level of opportunity recognition (Tumasjan & Braun, 2012). Considering past literature, the current study proposes that business model renewal leads to business improvement, but perhaps the level of perceived improvement may be different based on individuals' mindsets. We thus hypothesise that over time, entrepreneurial mindset may influence the relationship between changing their business model and the consequences of those changes.

***Hypothesis 2:** Over time, the relationship between business model renewal and firm*

¹ An advertisement which presents both sides of matters/information/argument and counter argument

performance is moderated by an entrepreneurial mindset, such that the relationship is more positive among promotion mindset entrepreneurs compared to preventive mindset entrepreneurs.

The latent growth curve (LGC) analysis is used to examine (Hypothesis 1) *the possibility that the level of business model renewal predicts the initial growth and linear growth of firm performances* and (Hypothesis 2) *whether entrepreneurial mindsets moderate the relationship between business model renewal and firm performances* (Figure 1). LGC model, a variant of structural equation modelling, is used to describe group differences in longitudinal change between and within those unobserved groups by using a mean-level change pattern and the maximum-likelihood estimation of the individual variation within the changing pattern (Duncan & Duncan, 2004).

Figure 1 about here

3.0 Methods

The current study utilised the data from the Comprehensive Australian Study of Entrepreneurial Emergence (CAUSEE) project (Davidsson et al., 2011). The project aims to identify what factors ultimately lead new, independent firms emerge and develop. The novel and rigorous methodology employed in this project was the first large-scale, longitudinal exploration of emerging businesses to be followed over three years. The technique used in this project was computer-assisted telephone interviewing (CATI) by the simple random sampling (RDD)- a technique that allows researchers to study the entire population, by creating a sample frame of all phone numbers. Through the RDD, the project involved 28,383 individuals participating in the CATI in wave 1. Over the course of three years, they were contacted for follow-up interviews approximately every 12 months. For this current study, the inclusion criterion was solo business owners of young firms (i.e. operating less than five years) (Davidsson et al., 2011).

3.1 Sample

The study sample consisted of 599 small businesses in wave one, and follow up waves two (n = 414)

and three (n=303). Fifteen percent discontinued participation after wave one. Most respondents were male (60%, mean age = 46), with ages ranging from 23 to 75 years old. They obtained high school qualifications in equal proportions as their undergraduate degrees or postgraduate studies; 53% had only basic education certificates while 47 percent held either bachelor's or masters' degrees. The majority of our sample's respondents reported their main business activity as product (23%), with 70% also reporting service-related work. The size range was from 0 employees to 40, with an average hiring of more than 3 employees. This diverse group included many different industry sectors: 16%, 12%, 11% respectively for consulting/ retailing; construction and housing; and healthcare education.

3.2 Construct validity

To ensure validity and reliability, a representative and unbiased sample was gathered by randomly contacting almost 30,000 households. The content validity of the questionnaire was ensured by drawing on existing scales and pretesting with academic experts and practitioners. The construct validity of the questionnaire was then tested using factor analysis, which showed that all construct items loaded uni-dimensionally on one factor, with no significant cross-loadings (Raubenheimer, 2004). Cronbach Alpha' is ranged from .70 to .90 (Hair, Anderson, Tatham, & Black, 1998). The data collection has revealed that there is some consistency in the factors across different waves. All of them load on constructs and display significant correlations year before or after, which suggests they are not just random chance but rather something more meaningful with respect to how people respond when given certain situations. Discriminant validity was checked in two ways: by ensuring that all variables loaded on their own intended constructs, and by entering all items for each construct across different waves in one-factor analysis. The study showed discriminant validity between years of data collection.

3.2 Measures

Business model renewal. This construct measures the level of changes in products, processes, marketing, and customers since the business first started trading on regular basis. There are four aspects, using a 6-point Likert-type scale from 0 = *not at all* to 5 = *more than five changes*, i.e. respondents were asked to quantify the important changes (products, processes, marketing, and customers) to their business idea since their business first started trading on a regular basis (α

= .71).

Entrepreneurial mindsets. This construct referred to entrepreneurs' mindset of the business model of the firm they are developing (Walsh, 1995). We assessed whether entrepreneurs' mindset is toward preventive or promotion mindsets. The scale forced respondents to choose between the two items unless it was deemed not applicable. There were nine items as described in an appendix A.: A response indicating promotion mindset was given a value of +1 and a response indicating preventive mindset a value of -1. The reason is that "non- applicable" answers would receive a value of zero and thus not biasing the scale in either a positive or a negative way. Binary variables cannot be analysed through factor analysis in a meaningful way. Items that had no relation to any of the other items were dropped from the inclusion of the scale.

Firm subjective performance. The annual net profit, sales growth, cash flow and company value growth were used to measure company perceptual performance, using Likert scale of 1 = much worse to 5 = much better ($\alpha_{wave1} = .80$, $\alpha_{wave2} = .85$, $\alpha_{wave3} = .87$). While this study measures objective performance, the subjective performance can offer additional information. Further respondents seem more likely to respond (Covin, 1991) and the information is less sensitive to industry variations (Miller, Dröge, & Toulouse, 1988).

Firm objective performance. The log transformation of annual profit reported by the business owners is used. The average profit for wave 1 = AUD 70,102 (ranging from AUD 240,000 to - 105,000), wave 2 = AUD 88,859 (ranging from AUD 350,000 to AUD -70,000), wave 3 = AUD 123,550 (ranging from AUD 400,000 to AUD -50,000).

Control variables. The level of business model renewal can be influenced by previous perceived performance and experiences among entrepreneurs (a number of start-ups that an individual was previously involved in). As a result, we control for previous entrepreneurial experience and firm perceived performance in the previous year.

4.0 Results

The descriptive statistics are shown in Table 1. To test our hypotheses, an estimation of paths

from business model renewal to the initial status and linear change factors of subjective and objective firm performances were examined (Figure 1). The fit of this model was adequate; $\chi^2(18) = 922.10, p < .001$, CFI = .993, TLI = .90, SRMR = .04 and RMSEA = .06. The results showed that business model renewal was positively associated with the initial growth of subjective ($\beta = .27, p < .001$) and objective performances ($\beta = .21, p < .001$). This means high performers tend to do more changes in their business models. However, business model renewal was negatively related to the linear growth² of subjective performance ($\beta = -.22, p < .001$) and on the actual annual profits (objective performance, $\beta = -.15, p < .001$). This negative effect means the increased business model renewal slowed down the growth of firm performances. Therefore this finding did not support Hypothesis 1 (the recurrent business model renewal accelerates firm performances over time). For the control variables, we found that prior perceived performance ($\beta = .06, p < .05$) and previous start-up experience ($\beta = .05, p < .05$) marginal influenced the level of change.

Next to determine the possibility that the entrepreneurial mindset moderates the relationship between business model renewal and performances by classifying individuals into the promotion or preventive mindsets at wave 1 as described in the method section. Using a multisample approach (Dana & Dana, 2005), the results showed the between-group differences $\Delta\chi^2(6) = 41.83, p < .001$. The impact of business model renewal on initial growth of subjective performance was greater for promotion mindset ($\beta_{\text{subjective}} = .28, p < .001$; $\beta_{\text{objective}} = .10, p < .001$) than preventive mindset ($\beta_{\text{subjective}} = .16, p < .001$; $\beta_{\text{objective}} = .02, ns$). Further, the increase of growth rate of subjective performance (as a consequence of business model renewal) seemed to be slower among promotion mindset ($\beta = -.62, p < .001$) than the preventive mindset ($\beta = -.11, p < .001$) entrepreneurs. However, the increase of growth rate of objective performance seemed to be slower among promotion mindset ($\beta = -.06, p < .001$) but non-significant effect among the preventive mindset ($\beta = -.01, ns$) entrepreneurs. Table 2 summarises the path coefficients from the multisampling approach. Therefore the finding supported Hypothesis 2 (the relationship between business model renewal and firm performance is moderated by entrepreneurial mindset over time).

Table 1 and Table 2 are about here

² Although we have not hypothesized, the nonlinear (quadratic) growth (squaring the slope factor loadings) was explored but the model was unidentified.

5.0 Discussion

The current study examined the dynamic relationship between the business model renewal on firm performance among young firms. We also extended the existing body of literature by introducing entrepreneurial mindsets as an important moderator regarding the business model renewal and firm performances. Drawing from hypothesis 1, the findings showed that well-performed firms tended to change their business model more frequently (as shown in the relationship between initial growth of business model renewal and performances). However, entrepreneurs who made more changes in their business model perceived that their performance growth is slower than those who made fewer changes. Current literature concludes that business model renewal improves financial performance (Agarwal & Helfat, 2009; Dess et al., 2003; Rajagopalan & Spreitzer, 1997). The current study extends this knowledge by further explaining this relationship by showing how the changes in business model renewal would impact the changes of firm performance over time. Drawing from our findings, entrepreneurs feel that frequent business model renewal increase, but slowly, their performance grows. This could be that these entrepreneurs may have high expectations with their performance improvement influenced by the business model renewal. Thus, the possibility that the entrepreneurial mindset moderates the relationship between business model renewal and performances were examined (Hypothesis 2). Due to sensitivity toward outcomes, the growth of subjective performance (as a result of business model renewal) was slower among promotion mindset ($\beta = -.62$) than preventive mindset ($\beta = -.11$) entrepreneurs. This could be due to higher expectations among promotion entrepreneurs, who aimed to change their business model to gain more benefits. Their business could be profitable at the current stage. However, the promotion mindset entrepreneur may set a significantly higher goal as a result of this change. Therefore, they expected more radical instead of incremental improvement of the performance. On the other hand, preventive mindset entrepreneurs changed their business model to minimise their loss. They perhaps only expected changes in their business model would lead to a small improvement in order to remain in a current business (e.g. from negative to break even). Preventive mindset entrepreneurs may expect the business model renewal would help them from not losing current customers, but not gaining any new customers. Therefore, the discrepancies between the perception of performance between preventive and promotion entrepreneurs were relatively different.

On the other hand, when the objective performance (actual annual profits) is used, the growth of profits (as a result of business model renewal) significantly and slowly increased among promotion mindset entrepreneurs, but non-significant effect among preventive mindset entrepreneurs. This could perhaps imply that promotion entrepreneurs would do more radical changes and be more beneficial from the change. Drawing from the current findings, higher performers tend to apply more changes. The multi changes in the business models may create synergies among these activities and therefore can significantly impact financial performance. The financial gain, drawing from our findings, is relatively small this could be that the multi changes may require an extensive commitment of resources.

We find that regulatory focus theory can explain successful business model change activity. The findings of our study provide theoretical implications for future research on this topic and may be useful in predicting or explaining companies' success with renewing their approach to operations over time. Drawing from our findings, there are several *implications for practice* that can be drawn from our study. Our results indicate the importance of business model renewal for improving performances. It suggests young firms continue to learn and adapt while executing, which is a break from the traditional design than execute approach (Baker et al., 2003; Dana, Gurău, Hoy, Ramadani, & Alexander, 2021). Our study confirmed that business model renewals have positive outcomes for firms, consistent with prior research (Frankish, Roberts, & Storey, 2010; Sawang, Parker, & Hine, 2016).

We demonstrated that new firms continuously develop their business ideas even if they are in the post-launch stage. Our study highlights that entrepreneurial mindset (either promotion or preventive) is a significant factor in the strategic change of business models. It may be that when future researchers investigate the effects of venture management teams' learning and absorptive capacity, they will want to look at how people deal with changes in order not just make do but rather create a better future (Baker & Nelson, 2005), may be a promising theory in this respect, as firms with a preventive versus an entrepreneurial strategic orientation may engage in bricolage for different reasons.

Our research examined dynamic changes between business model renewal and performance. Future

research could adopt a similar longitudinal design capturing the progress of business ideas among new firms (see Van de Ven & Engleman, 2004) in the commercialisation phase. Gersick (1994) research on new firms has shown that this may be a fruitful avenue for future research. Research on gestation dynamics in nascent firms has shown that entrepreneurs do not follow a linear sequence in developing their venture (Liao, Welsch, & Tan, 2005; Lichtenstein, Carter, Dooley, & Gartner, 2007). Our findings also indicate that dynamics play an important role in the venture development process. The ability to capture dynamic social media data in real-time could be a challenge for researchers, but new technologies may help make this type of research more feasible. (Fischer & Reuber, 2011; Sukumar, Jafari-Sadeghi, & Xu, 2021). Further, the current study captured the intensity or frequency of changes, future studies may extend this aspect by integrating the degree of changes whether they are incremental or radical changes. This could be an additional variable to extend our understanding between the business model renewal and outcomes.

6.1 Conclusion

Drawing from literature, we know that business model renewal can lead to performance improvement. The current study further explains the relationship between the frequent changes of business model impact on the “rate” of improvement. Entrepreneurs that frequently change their business model improve their performance slower than those firms with fewer changes. The relationship between the frequency of business model renewals and the rate of improvement also depends on entrepreneurial mindsets. As stated in the literature review, we build on the growing literature on strategic business model renewal that is focused on the post-launch stage. By examining the influence of entrepreneurial mindsets on business model renewals, we are extending RFT to show how mindsets can shape firm performance. The paper offers a distinctive view on the assumed positive effects of business model renewal on performance over time and address the knowledge gap pertaining to entrepreneurial mindsets (prevention vs promotion) mediating business models renewals and firm performance.

This empirical work also inherits limitations that can also be opportunities for future research. The work examines the entrepreneurial mindset but it fails to explore the conditions at which the decisions are made, for example, the organisational context, the personal context and the influence of endogenous factors. We believe that in-depth case studies can offer a rich picture and more

contextualised data that can further explain entrepreneurial mindsets and business model renewals. Secondly, further studies can examine samples that are more than five years old. Examining the differences between young and mature firms can further shed light on the nature of decision making influenced by promotion and preventive mindsets of owner/managers and entrepreneurs on firm performance. Thirdly, our findings may be limited to Australian small firms (less than 40 employees). The generalizability to larger firms may be limited. However, the generalizations can certainly apply internationally where there is a similar external environment or entrepreneurial ecosystem in other countries such as New Zealand. The generalisability of current study may be inferred to those countries that demonstrate the similar level of individualism-collectivism with Australia (Sawang, Oei, & Goh, 2006; Schwartz, 2011). In general, cultures that are more collectivistic value obedience and discipline over innovation or creativity, therefore individuals are prone to preventive mindset, whereas the more individualistic individuals tend to be promotive-oriented. Lastly, future work can also focus on exploring other mediating factors such as innovation in role in the nexus between entrepreneurial mindsets and firm performance.

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APPENDIX A: Measures of entrepreneurial mindsets

Which is truer for your business in the last twelve months...

- Making losses as small as possible in case things go wrong – targeting the highest possible profits in case things go well
- Working to position your business to benefit from opportunities you had foreseen in an existing market – working to directly create a market so as to shape new opportunities
- Making smaller investments focused on getting the money back sooner – making larger investments to capture as much value as possible from future success

Thinking about the most important surprise in the past 12 months, if any:

- We built on the surprise to create a new or partly new direction for the business –
- We worked around the surprise to stay on the original track®

What is truer about your collaborative relationships in the past 12 months, if any:

- They were mostly formed through our existing personal contacts – they were mostly formed through a broad search for relevant partners^b
- We have used them to help us achieve our original goals – we have also let them influence the direction or goals of our business^b

Which is truer for the most important change in the past 12 months:

- The change was mostly driven by us acquiring new resources and skills – the change was mostly driven by us using our original resources and skills differently^b
- Despite the change, we stay true to our original goals – the change also included changing the goals for the business

^b Item deleted after analysis; ® reversed item

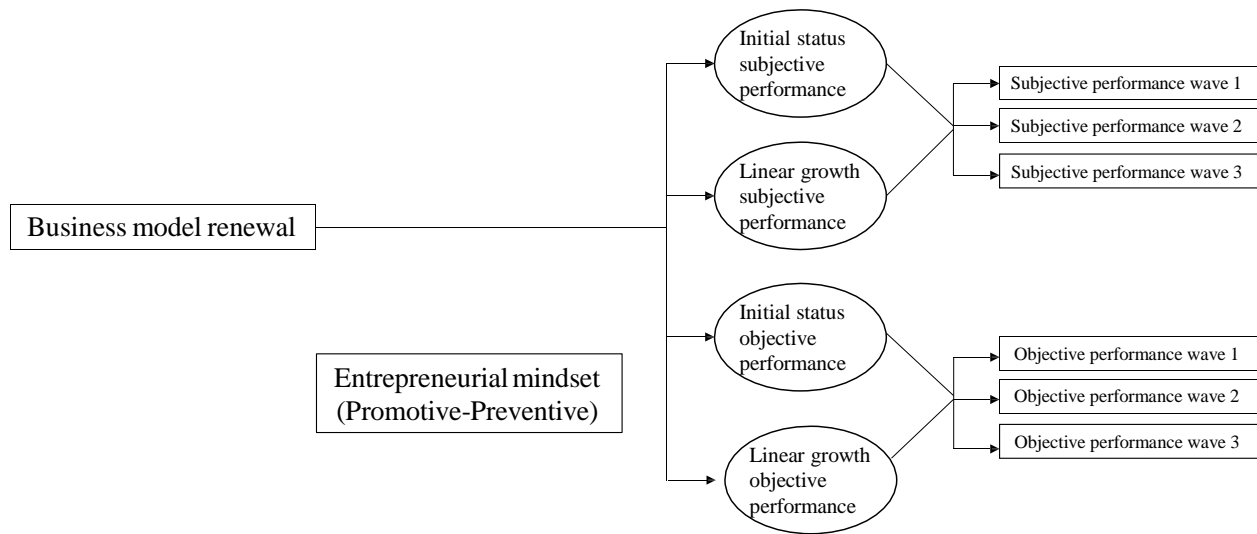


Figure 1. A proposed model: The role of entrepreneurial mindsets on the relationship between business model renewal and firm performances. The model with three-time points (representing repeated measures of subjective and objective performance) is presented. The initial status (intercept) is a constant for any individual across time, hence the fixed values of 1 for factor loadings on the repeated measures. The linear growth (slope) is an individual's performance discord trajectory. The factor loadings are bound to the time scale, hence the fixed values of 1, 2, 3 for factor loadings on the repeated measures.

Note: The business model renewal is controlled for previous entrepreneurial experience and firm perceived performance in the previous year.

Table 1. Descriptive and correlations among studied variables.

Variables	1	2	3	4	5	6	7	8	9	10
1. Business model renewal	(.71)	.266**	.002	.039*	-.010	.138**	.150**	.037**	.063**	.025*
2. Entrepreneurial mindsets		-	.047	.085	.164**	.165**	.093	.103	.138**	.166**
3. Objective performance Wave 1			-	.841**	.808**	.287**	.141**	.225**	.261**	.156**
4. Objective performance Wave 2				-	.888**	.290**	.222**	.213**	.306**	.218**
5. Objective performance Wave 3					-	.237**	.220**	.246**	.405**	.255**
6. Subjective performance Wave 1						(.80)	.345**	.439**	.056**	.163**
7. Subjective performance Wave 2							(.85)	.493**	.057**	.222**
8. Subjective performance Wave 3								(.87)	.174**	.248**
9. Previous entrepreneurial experience									-	.071**
10. Previous perceived performance										-
Mean	3.525	-	8.987	9.075	9.711	3.151	2.997	2.821	3.346	.446
SD	1.103	-	4.018	3.996	3.543	.665	.543	.570	.752	.497

Note: ** = $p < .01$; Objective performance (annual profit) uses a log transformation; Entrepreneurial mindsets are categorized into two groups as explained in the method section, therefore no mean is provided.

Table 2. A summary of path coefficients from the multisample approach based on the proposed model (Figure 1)

Models		Business model renewal	Business model renewal x promotion mindset	Business model renewal x preventive mindset
Initial growth	Subjective performance	.27***	.28***	.16***
	Objective Performance	.21***	.10***	.02 ns
Growth rate	Subjective performance	-.22***	-.62***	-.11***
	Objective Performance	-.15***	-.06***	-.01 ns

Note: *** = $p < .001$, ns = non-significant. Initial growth is time 1, time 2, time 3. Linear growth is Growth rate is between time 1, time 2, time 3.