Career shock and the impact of stress, emotional exhaustion, and resources on entrepreneurial career commitment during the COVID-19 pandemic

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Structured Abstract

Purpose – The purpose of this study is to investigate how a career shock, like the COVID-19 pandemic, decreases entrepreneurial career commitment (ECC). We look at the specific effect of career shock on stress and emotional exhaustion mediating the commitment, and how organizational and relational resources offset the shock to keep the entrepreneurs committed to their career.

Design/Methodology/Approach – This study used a two-wave sample of 365 entrepreneurs collected four months apart. We initially recruited entrepreneurs three months after the pandemic started, then four months later, and tested these ideas with longitudinal data. The design was informed by the stress-strain-outcome (SSO) model to investigate career shock as stressors to entrepreneurs that are likely to produce emotional exhaustion and a decline in ECC.

Findings – The findings demonstrate that career shock affects stress, which in turn leads to a decline in commitment through the mediation effect of emotional exhaustion. Organizational resources (e.g., access to finance) do not impact ECC, stress or emotional exhaustion. However, relational resources (e.g., quality emotional support) are important for ECC by supporting a decrease in stress and emotional exhaustion.

Originality/value – This study demonstrates that a career shock affects stress, which in turn leads to a decline in commitment only through the mediation effect of emotional exhaustion. The panel/longitudinal data analysis demonstrates the causality in the process, highlighting the positive role of the entrepreneur's relational resources. Specifically, it shows that an increase in access to relational resources causes a decrease in stress and emotional exhaustion, which in turn causes ECC to improve. Entrepreneurs are ill-equipped to face a career shock if they lack these resources.

Keywords: Career shock, entrepreneurial career commitment, burnout, emotional exhaustion, stress, relational resources, organizational resources, COVID-19.

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Introduction

The COVID-19 pandemic has exacerbated many social and economic problems (Altig et al., 2020), and produced negative consequences for the mental and physical health of some individuals (Torales et al., 2020). Entrepreneurs have faced particularly acute career challenges during the pandemic, with some being forced to permanently close their businesses due to a lack of resources, while others either experienced temporary closures to comply with COVID-19 restrictions and lockdowns or pivoted, by changing their core processes, in order to remain competitive (Brown & Cowling, 2021). In such a highly turbulent context, financial, human, and psychological resources become crucial in keeping the company in operation and allowing the entrepreneur to continue running the business. For many, the pandemic marks the end of their entrepreneurial careers because of these harsh conditions (Fairlie & Fossen, 2021). Small business owners are also responsible for the employment of others, making career challenges even more difficult as the negative consequences extend to employees and their families for which the entrepreneur feels responsible (Cantele, 2018).

As pointed out by Akkermans et al. (2020), the COVID-19 pandemic represents a career shock for many people, particularly for entrepreneurs. The career shock concept is defined as "[…] a disruptive and extraordinary event caused by factors outside the focal individual's control and that triggers a deliberate thought process concerning one's career" (Akkermans et al., 2018, p. p.4). What makes entrepreneurs stay committed to their career when facing a career shock like the COVID-19 pandemic? We leverage the COVID-19 pandemic to investigate how a career shock can change entrepreneurial career commitment (ECC).

ECC is based on the concept of career commitment, defined as the extent to which someone identifies with and values entrepreneurship as a career (Baluku et al., 2020; Blau, 1985). Although mainly studied in the context of salaried employment, career commitment appears relevant but remains

understudied in entrepreneurship (Marshall et al., 2019). In fact, most of the research efforts have thus far attempted to understand what drives an individual to launch into an entrepreneurial venture rather than looking at what makes them persist later in the process (Fayolle & Liñán, 2014). Studying entrepreneurial career commitment appears to be a promising way to fill this gap and further our understanding of this phenomenon (Fayolle et al., 2011).

By drawing upon the Stress-Strain-Outcome (SSO) model (Koeske & Koeske, 1993), this study illustrates how and under which conditions entrepreneurs experience a decreased commitment to their career as a result of a career shock such as the pandemic (Akkermans et al., 2020). We posit that two sources of career shock from the pandemic, namely increased workload, and changes in market conditions (i.e., opportunities and threats), act as stressors to entrepreneurs and generate stress, which ultimately leads to emotional exhaustion and a decrease in entrepreneurial career commitment (ECC). The model used in this study captures the impact of two different types of resources, namely relational and organizational, on decreased levels of stress and emotional exhaustion and, as a result, improved ECC. To investigate these ideas, a two-wave longitudinal sample of Canadian small business owners who answered a questionnaire in June and October 2020 was utilized.

This study's first contribution is to highlight the role of career shock in entrepreneurship through its impact on ECC. By bringing together these two concepts, we demonstrate how a career shock is a source of stress (stressor), which generates emotional exhaustion that is detrimental to commitment (ECC). In this regard, we demonstrate that a career shock only affects stress levels, which leads to a decline in commitment through the mediation effect of emotional exhaustion. The second contribution is to demonstrate the central role of resources in reducing stress and emotional exhaustion and increasing ECC. Specifically, this study demonstrates that relational resources are important for ECC by supporting the psychological health of entrepreneurs (stress and emotional exhaustion), without which they are ill-equipped to face a career shock. Third, this study shows that entrepreneurs may exit their

entrepreneurship career, not only because of a lack of financial resources, but as a result of psychological health issues, which underscores the importance of more deeply investigating how entrepreneurs maintain balance in their hectic careers. Finally, by drawing upon two-wave data, this study illustrates how access to relational (rather than organizational) resources maintain ECC and psychological health over time. This provides new insights into the processes by which a career shock leads to a decline in commitment.

Theoretical Background and Hypothesis Development

Influence of Career Shock on Entrepreneurial Career Commitment (ECC)

Career commitment is defined as one's attitude towards one's profession or vocation (Blau, 1985). Drawing on career motivation theory (London, 1983), Carson and Bedeian (1994) theorized career commitment by considering three dimensions: career identity, career planning, and career resilience. *Career identify* is the extent to which individuals define themselves by their career, and *career planning* refers to the motivation for individuals to advance their career or set career-related goals. Finally, *career resilience* refers to the persistence component of commitment, especially when facing discouraging circumstances. By extension of the career commitment construct and following Hall's (1971) conceptualization, entrepreneurial career commitment (ECC) is defined as an individual's motivation to continue working as an entrepreneur. Following the theoretical perspective of Carson and Bedeian (1994), this study focuses on the resilience component of the entrepreneurial career commitment construct.

Several research streams relate to entrepreneurial career entry, such as studies on entrepreneurial intention and nascent entrepreneurship activities (Douglas, 2020; Sheeran & Webb, 2018), as well as research on entrepreneurial exits (DeTienne & Wennberg, 2016; Nielsen & Sarasvathy, 2018). From a career perspective, however, the reasons why individuals stay committed to the entrepreneurial career

are less known (Fayolle et al., 2011). The literature related to entrepreneurial exit intentions offers limited insights into commitment to an entrepreneurial career, and several key questions remain unanswered. In fact, many entrepreneurs exit their initial venture to start another (i.e., serial entrepreneurs) (Carbonara et al., 2020), while others leave entrepreneurship altogether (Debrulle, 2016). Consequently, individuals who intend to exit entrepreneurship may either want to return to entrepreneurship (i.e., strong entrepreneurial career commitment) or exit permanently (i.e., weak entrepreneurial career commitment). In other words, some individuals remain strongly committed to their entrepreneurial career as they exit an entrepreneurial venture while others do not. The resilience component of ECC thus provides a better theoretical lens through which to understand the motivations to remain an entrepreneur than exit intentions, which are contingent upon the process of creating, acquiring, and selling businesses, and fail to provide any explanations of why some entrepreneurs exit and others remain committed to their entrepreneurial career.

Career shock is a relatively new concept that can be defined as "a disruptive and extraordinary event that is, at least to some degree, caused by factors outside the focal individual's control and that triggers a deliberate thought process concerning one's career" (Akkermans et al., 2018, p. 4). Career theories and perspectives are mainly agentic or self-management based, with an underlying assumption of individual ownership, control, and direction as the driver of career development and, ultimately, career success. The career shock concept brings into the discussion the influence of major events in the career development of individuals (Akkermans et al., 2018). It is based on the notion that careers are more unpredictable and contingent on the labour market and the economy than previously considered (Akkermans et al., 2020). The shock is not under the control of the individual and is a contextual antecedent of career development. It should be noted that a career shock can be either positive or negative (Seibert et al., 2013), bringing new opportunities or threats to the career development that were neither

expected nor planned. This highlights the uncertainty inherent to career management, as such, a shock would require the individual to adapt to the new situation.

The career shock concept has a natural "fit" with entrepreneurship (Akkermans et al., 2021), as it can explain why people decide to enter entrepreneurship, remain an entrepreneur or return to paid employment (Debrulle, 2016). Entering entrepreneurship can constitute a career shock as the reality can differ significantly from what was initially expected (Akkermans et al., 2021; Clark et al., 2022). Consistent with this view, entrepreneurship involves long hours of demanding and tedious work (Parastuty et al., 2016) that makes it difficult to separate work from family and other commitments (McDowell et al., 2019). According to Akkermans et al. (2021), first-time entrepreneurs may experience considerable reality-based career shock simply by having to deal with a misalignment between their expectations and the actual nature of entrepreneurial work. Moreover, the ongoing pursuit of entrepreneurship can also lead to career shock. Entrepreneurs have to deal with uncertainty and significant levels of personal and professional risks that are inherent to entrepreneurship (Schmitt et al., 2018). External enablers in the macro environment can not only provide opportunities to new entrants, but also generate change and turbulence for businesses already in the market (Davidsson et al., 2020; Kimjeon & Davidsson, 2021). Crises can also serve as contexts from which career shock can emerge (e.g. Doern et al., 2019; Korber & McNaughton, 2018).

Entrepreneurship as a career is deeply related to the environmental factors that enable business success. Part of this success is out of the scope of the entrepreneur's control and choice, as external enablers (or inhibiters) can change the rules of the game (Davidsson et al., 2020). Because the business is so closely tied to the entrepreneur's career development, achieving new career goals, such as becoming the top executive, means adjusting the business' goals accordingly, with less control over the ability to achieve them. Moreover, the fact that entrepreneurs and small business owners are more tied to their business than regular employees in that they cannot simply quit by submitting their notice to their

employer and instead must find someone to buy their business if they want to leave. Thus, entrepreneurs and small business owners are more likely to inherently be impacted by career shocks, which affect entrepreneurs differently from paid employees. Career shocks are therefore likely to act as stressors to entrepreneurs, as uncertainty is strongly associated with stress and health-related issues (Greco & Roger, 2003).

The COVID-19 pandemic appears to be a perfect storm from which career shocks are likely to emerge, given the unwanted increased workloads, high uncertainty about the future, major changes in demand, and a lack of a diversity of resources (Altig et al., 2020; Fairlie & Fossen, 2021). The pandemic changed the usual workload of entrepreneurs in unprecedented ways in order to meet changing and often contradictory rules from the various levels of government. This necessitated changes in business processes stemming from the need for remote work, accelerated digitization, and the development of new products and services with limited time and resources to meet changing customer preferences and demands (Greene & Rosiello, 2020). Many businesses lost their traditional markets and were forced to pivot in order to survive (Crick et al., 2023; Kuckertz et al., 2020), further underscoring the great uncertainty and significant environmental changes that give rise to opportunities and threats (Giones et al., 2020). Some entrepreneurs and small business owners ceased their business operations within a few months after the Great Lockdown in many countries, including the United States and Canada (Fairlie & Fossen, 2021; Mo et al., 2020). This situation clearly represents a career shock for entrepreneurs that could lead to a decline in entrepreneurial career commitment, even to the point of exiting entrepreneurship altogether.

The Influence of Career Shock on Stress and Emotional Exhaustion

According to Koeske and Koeske (1991), within the SSO model, strain plays a full mediating role in the relationship between stressors and outcomes. The SSO model predicts that burnout (of which

emotional exhaustion is a symptom) mediates the relationship between subjective stress and a predisposition to negative outcomes (Koeske & Koeske, 1993). Wei et al. (2015) suggest that entrepreneurial stressors (e.g., workload, competing comparison, demands-of-knowledge, managing responsibility, and resource requirements) contribute to burnout (i.e., emotional exhaustion, depersonalization, and decreased personal accomplishment) among entrepreneurs. They found that the entrepreneurial stressors of the workload were positively related to emotional exhaustion. Similar results have been reported by Tetrick et al. (2000). Sardeshmukh et al. (2021) have shown that role ambiguity and work–family conflict are some of the job stressors that predict emotional exhaustion (strain), which has been associated with exit intentions Although not specifically integrated into the model for simplification purposes, the SSO model recognizes that "objective" events act as stressors to create "subjective" stress (i.e., stressor-stress relationship), with the latter serving as the starting point for the SSO model.

The pandemic, as a career shock for entrepreneurs, is likely to manifest itself as an increase in workload and a change in market conditions that will increase uncertainty or potential threats. Both changes are considered to be stressors in entrepreneurship (Lechat & Torrès, 2017). In normal times, entrepreneurship is a career characterized as demanding (Mäkiniemi et al., 2020) and with high levels of uncertainty (Rauch et al., 2018). Based on the SSO model, a recent study suggested that the perceived threat of COVID-19 was positively related to emotional exhaustion (strain), which in turn increased antagonistic behaviour (Shahzad et al., 2020). Another study found that stress associated with the financial uncertainty stemming from the pandemic generated a higher probability of burnout among small business owners (Torrès et al., 2021). Entrepreneurs are at risk of experiencing stress as a result of long and intense workdays, workload demands and heightened responsibilities (Manzano-García et al., 2021).

Entrepreneurial challenges arising from an economic shock perspective include extensive supply-demand disruptions and market shock; a reduction in production worldwide, combined with a shortage

of raw materials and factory shutdowns; and further downward pressure on the market due to reduced consumer consumption in certain market segments (Azizi et al., 2021). These challenges arising from the COVID-19 pandemic increased uncertainty and market level threats and disruptions. More recently, Caliendo et al. (2023) noted that the effects of the pandemic on entrepreneurs go beyond economic losses and include a worsening of mental health driven, in part, by pandemic-driven market distortions. In a recent review, the market and social context were identified as an overlooked antecedent of entrepreneur's mental health and well-being (Stephan, 2018), with strong market competition straining entrepreneurs' mental health and well-being, indirectly through increasing role stress (Wincent & Örtqvist, 2009).

Entrepreneurial challenges arising at the organizational level leading to increased workload include having additional responsibilities for worker safety and dealing with infection of employees; dealing with reduced employee motivation and weakening of morale, a reduced ability and concentration of the founding team and employees, and creation of stress due to illness, layoffs or death of a colleague; changing workflows, policies, and procedures to accommodate staff, customer and regulatory needs; dealing with reduced customers and sales ,and the additional cost for hiring new employees, while not being able to deliver on-site services; while managing the rumors and fear in the organization arising from considerable uncertainty (Azizi et al., 2021). Thus, these challenges arising from the COVID-19 pandemic increased workloads on a number of fronts for entrepreneurs and added to the already higher levels of risk, uncertainty, responsibility, and workload, compared to employees, which in turn act as stressors for entrepreneurs (Tetrick et al., 2000; Torrès et al., 2021).

Thus, a career shock based on higher workload and threats from a change in market conditions would likely increase the perceived stress. This leads to the first two hypotheses:

H1: There is a positive relationship between an increase in workload caused by the pandemic (career shock) and stress.

H2: There is a positive relationship between a threat in market conditions caused by the pandemic (career shock) and stress.

According to the SSO model, the stress caused by a career shock leads to emotional exhaustion, which in turn decreases ECC. Job burnout is a psychological syndrome of emotional exhaustion, depersonalization and a decreased sense of personal accomplishment that occurs in response to chronic work-related stress (Maslach et al., 1986). Emotional exhaustion is a key aspect of burnout characterized by depleted emotional resources and an inability to give of oneself at the psychological level (Maslach et al., 1986). Burnout is recognized as "a mental illness that makes it difficult for entrepreneurs to control their personal and professional life" (Manzano-García et al., 2021, p. 9).

Career shock can lead to burnout and a decreased sense of well-being (Ballantyne & Retell, 2020), likely as a result of work-related stress (Khamisa et al., 2017), as burnout occurs following exposure to chronic and acute work stress (Ross et al., 2020). Individuals in a state of burnout can develop a negative attitude towards their work, which in turn decreases their commitment and their ability to deal with career disruptions. Sardeshmukh et al. (2021) found that emotional exhaustion was positively associated with entrepreneurial exit intentions, suggesting that entrepreneurs who are emotionally exhausted are more likely to be frustrated and dissatisfied, may start to disengage from the venture, and may ultimately consider leaving or exiting the company entirely. A recent systematic literature review pointed to the impact of burnout/emotional exhaustion on decreasing job engagement among entrepreneurs (Mäkiniemi et al., 2020), while another study found an impact on growth intentions (Neneh, 2022). This is consistent with many similar findings from salaried employment settings where stress and emotional exhaustion lead to career-related outcomes (e.g., job satisfaction, turnover intentions, etc.) in a mediating manner (Cheung & Tang, 2010; Jabutay et al., 2023; Um & Harrison, 1998). Drawing upon the SSO model, we posit that stressors, workload, and career shock lead to emotional exhaustion, which in turn hinders entrepreneurial career commitment. This leads to the third hypothesis:

H3: An increase in stress increases emotional exhaustion (H3a), which in turn decreases an entrepreneur's ECC (H3b) (mediation).

The Influence of Organizational and Relational Resources on ECC

The SSO model shares the same theoretical foundation as the conservation of resources (COR) theory, which is considered a general theory of psychological stress developed to explain how resource depletion leads to stress and strain (Hobfoll, 1989). COR theory is of particular relevance in the study of emotional exhaustion (Hobfoll & Freedy, 2018) and recent developments suggest moving beyond stress in investigating outcomes such as job performance, absenteeism, turnover, or career-related issues (Hobfoll et al., 2018). According to COR theory, individuals strive to conserve and protect their resources, and will try to expand those resources if possible (Hobfoll et al., 2018). Thus, COR theory suggests that stress arises when resources are scarce, threatened or when investment in such resources yields no gains (Hobfoll, 1989, 2002). It contends that entrepreneurs display negative behavioural outcomes (e.g., decline in productivity, absenteeism) because of entrepreneurial burnout caused in part by scarcity of resources (Torrès et al., 2021). From an SSO perspective, in response to stressors, entrepreneurs may use their valuable resources to cope with stress and emotional exhaustion/burnout. In other words, the entrepreneurs who have greater capabilities to obtain, retain, protect, and foster those resources they value may be more likely to resist the negative consequences of stress and emotional exhaustion such as decreasing entrepreneurial career commitment. Specifically, resources have a direct effect on reducing stress, a direct effect on reducing emotional exhaustion and a *main* direct effect on increasing entrepreneurial career commitment (Cohen & Wills, 1985; Tetrick et al., 2000).

This study focuses on two different types of resources: *organizational* and *relational*. From the perspective of the entrepreneur, organizational resources are defined as those that support the development of the business (i.e., financial resources, advice and feedback, etc.) (Kraatz & Zajac, 2001), and relational resources are those that provide emotional and social support to the entrepreneur (i.e.,

interaction with other entrepreneurs, emotional support, etc.) (Hobfoll, 2002). Both resources are recognized as important in preventing individuals from quitting their job or career (De Clercq & Pereira, 2022) and serve as basic elements of business success (Siemens, 2010).

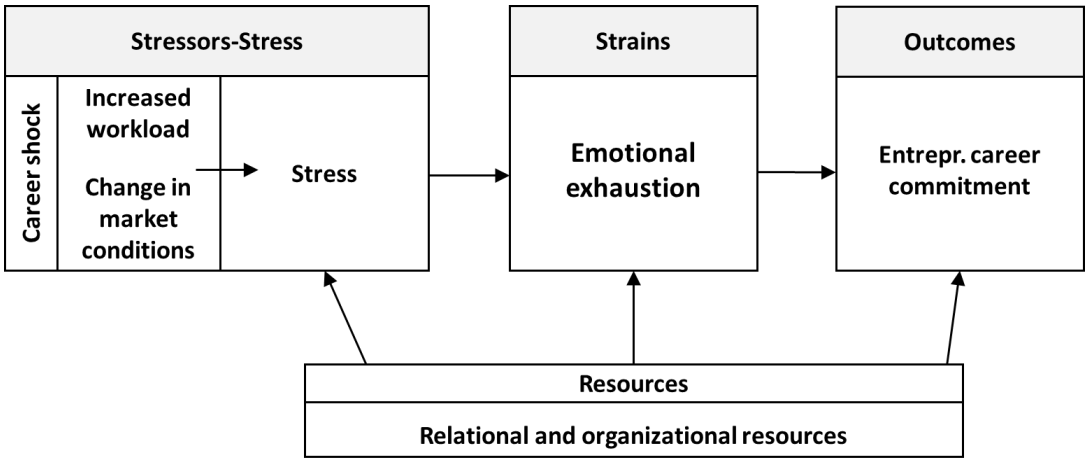
Relational resources are important to decrease stress in a person's life. These resources provide support in situations of pressure, uncertainty and overload, and sustain the commitment of individuals (Hobfoll, 2002). An actual or perceived loss of these resources may lead to entrepreneurial stress (Arshi et al., 2021; Tetrick et al., 2000). Resources also have an effect on resilience, as individuals who live in resource-rich and stable environments have high rates of resilience, even when faced with significant short-term or a single episodes of adversity. Furthermore, a lack of liquidity can compromise the survival of the business in times such as the pandemic (Cowling et al., 2020). Thus, a lack or loss of access to resources resulting from the COVID-19 pandemic could decrease ECC. Consequently, having access to organizational and relational resources decreases the stress associated with an increased workload and perceived threats in market conditions, while decreasing emotional exhaustion, and increases ECC. This leads to the final set of hypotheses:

H4: An increase in access to relational resources decreases stress (H4a), decreases emotional exhaustion (H4b), and increases the entrepreneur's ECC (H4c).

H5: An increase in access to organizational resources decreases stress (H5a), decreases emotional exhaustion (H5b), and increases the entrepreneur's ECC (H5c).

Figure 1 presents the conceptual framework guiding this study.

Figure 1
Theoretical Model



Methods

Sample

In June 2020, entrepreneurs were recruited through various partners and networks, including social media platforms such as LinkedIn and Facebook, and directly through former participants in previous studies. The initial sample was composed of 654 individuals found mainly through social media (64.9%) and contacts from previous studies (23.6%). Participants were offered CAD $20.00 as compensation to encourage their involvement in each of the two rounds of data collection. Respondents recruited from social media platforms may have been attracted to the compensation and may have provided lower quality responses. To control for this potential problem, logical analyses were performed on the responses and identified respondents who completed the questionnaire too quickly to meet minimum requirements for thoughtful responses (i.e., taking fewer than 8 minutes to fill out a questionnaire that should take 16 to 20 minutes to complete). In addition, as a quality check, participants had to verify their year of birth as well as their company's business sector in order to receive compensation. Those who could not answer these questions were eliminated (n=150), as were respondents who completed the questionnaire too quickly or refused to take the questionnaire again

(n=60). This procedure resulted in 496 respondents for the first phase of data collection (T1). The follow-up questionnaire was administered four months later in October 2020 (T2) and 365 respondents agreed to participate (T2), which represents an attrition rate of 26.4%. In June 2020 (T1), Canada was exiting the first wave of the pandemic and COVID-19 numbers were in steady decline, with 300 daily infections reported compared to the peak of the first wave, where 1,500 daily infections were reported on average. However, by October 2020 (T2), COVID-19 numbers were growing exponentially once again, with an average of 3,000 daily infections and trending alarmingly upward.

Measures

Dependent Variable. *Entrepreneurial Career Commitment* was measured with an adaptation of the scale developed by Carson and Bedeian (1994) using four items with a 7-point Likert scale. Questions included statements such as, "The inconveniences associated with an entrepreneurial career sometimes seem too great to me" (Appendix 1). Specifically, the career resilience component of ECC was selected as it is particularly relevant in the pandemic context. The measure is unidimensional with a Cronbach's alpha of 0.860 for T1 and 0.880 for T2.

Independent Variables. *Access to resources* was based on the seven items developed by Hanlon and Saunders (2007) using a 7-point Likert scale. The scale was divided into two separate constructs. Four items represent access to *Organizational Resources* (e.g., "I have easy and sufficient access to useful and quality training") and three items measure access to *Relational Resources* (e.g., "I have easy and sufficient access to quality business contacts") (Appendix 1). Cronbach's alpha for organizational resources is 0.785 and 0.736 for T1 and T2, respectively; and 0.770 and 0.669 for relational resources (T1 and T2). The average scores of these subscales were used for this study.

Career Shock was measured by two indicators: *Increased workload* and *Changes in market conditions* (opportunities/threats). First, *Increased workload* was developed as part of this study using

four items. The changes that followed the COVID-19 pandemic to new clientele, new products/services, procurement from suppliers and work organization (10-point scale) (Appendix 1) were measured in this study. For the second wave (T2), the level of change since June (wave 1) was determined. Cronbach's alphas are 0.688 and 0.717 for T1 and T2, respectively. The average score of the four items was used in this study. Second, *Changes in market conditions* (opportunities/threats) was measured by a proxy indicator that addresses threats or opportunities related to changes in market conditions since the pandemic. The exact question was: "Are the changes in your business environment primarily threats or opportunities for your business?" The measure uses a cursor that moves from -10 = Big threats to +10 = Big opportunities, where 0 = Threats equal opportunities. The scores representing that the higher the score, the greater the threat (career shock) were reversed.

Emotional exhaustion was measured with a four-item scale proposed by Maslach et al. (1996) to specifically measure emotional exhaustion in the burnout scale (*Maslach's Burnout Inventory*) and recently used in entrepreneurship (Murnieks et al., 2020). Respondents were asked to rate the extent to which they agreed with four situations on a 7-point Likert scale (for example, "I feel exhausted at the end of the workday"). Cronbach's alphas are 0.862 and 0.840 for T1 and T2, respectively. The average score of the four items was used for this study.

Lastly, *Stress* was measured using the Perceived Stress Scale (PSS-4) developed by Warttig et al. (2013) (e.g., "In the last month, how often have you felt you were unable to control the important things in your life?"). The scale ranges from 1-Never to 5-Very often. Cronbach's alphas are 0.723 (T1) and 0.670 (T2).

Control Variables. Controls for gender, age and immigrant status were included in this study (Mo et al., 2020) since these variables can influence entrepreneurial career commitment. Controls were also included for the estimated profits for the year after the pandemic started as well as the number of employees (size of the business).

Convergent Validity. A measurement model with ECC at T2 was tested as a first order latent variable explained by increased workload, organizational resources, relational resources, stress and emotional exhaustion. According to Fornell and Larcker (1981), to ensure convergent validity of the constructs (IW, OR, RR, Stress, EE, ECC1 and ECC2), the AVE must be greater than 0.5. The AVEs are between 0.52 and 0.74.[1] Thus, convergent validity of the constructs in this study was confirmed.

Attrition. Longitudinal designs are likely to introduce bias caused by respondent attrition. The procedure for estimating attrition suggested by Goodman and Blum (1996) was followed in this study. The mean differences were first compared in the study's variables between those who responded only in the initial wave and those who completed the follow-up wave. Then, using logit (binary) regression, the probability of being part of both waves compared to only the initial wave including all of the study's variables was calculated. Results of the logit regression show that only stress (B=-0.528, sig=0.003) and gender (B=-0.445, sig=0.043) can significantly predict wave participation but, overall, the regression has low predictive power (Cox and Snell R^2=0.042, no change in correct classification of cases). Furthermore, the mean differences of the variables (*t* test) show only a significant difference in stress (p=0.004), with stress being higher for those who only participated in T1 (2.82 on a 5-point Likert scale) than those who participated in both (2.60). Despite its significance, the difference in stress levels is very low. Therefore, attrition does not seem to affect the data.

Analysis

There are many methods to deal with two-wave panel data, and the change score (T2-T1) with the T1 score included as covariate is preferred (Dalecki & Willits, 1991). It is the most appropriate method for studying dynamic processes (Gillespie & Streeter, 1994) as its estimates are unbiased by measurement error in the outcome or by unobserved heterogeneity in time-invariant differences between

[1] Analysis available upon request.

individuals (Johnson, 2005). This is the dominant research design and methodology used in organizational stress research (Zapf et al., 1996). This method also deals with the regression to the mean phenomenon (Yu & Chen, 2015). Following recommendations made by Yu and Chen (2015), besides controlling for the dependent variable at T1, the distribution of variables at T1 were evaluated and there are very few extreme cases, which limits the phenomenon. The change score (T2-T1) for the main dependent variable (ECC) and the other two related to psychological health (*Stress* and *Emotional Exhaustion*) were calculated. Regression analyses with the T1 score and other control variables (model 1) were run, then predictors level at T1 were entered, and the change of predictors between the periods was determined. This procedure can reveal whether a predictor level at T1 can cause a change of the dependent variable in the next period (model 2) and whether any changes in the predictors can induce a change in the dependent variable (model 3).

Results

Table 1 presents the means, standard deviations, and correlations of the variables. Table 2 provides the results of hierarchical regression analysis for change in stress (T2-T1). Model 1 is about the control variables of this study. Model 2 shows the variables related to the resources and career shock at T1, while Model 3 considers the change of these variables between the periods. As determined from this model, although access to organizational resources at T1 is close to decreasing stress, it is not significant (Std.β=-0.141, p=0.068). A change in access to relational resources between the periods significantly decreased stress (Std.β=-0.166, p=0.014), but not a change in access to organizational resources (Std.β=-0.100, p=0.120). Thus, H4a is supported, but H5a is rejected. For the career shock variables, changes in market conditions (opportunities/threats) at T1 induced a change in stress between the periods (Std.β=0.100, p=0.034), as did changes in market conditions between the periods (Std.β=0.119, p=0.038).

Table 1. Means, Standard Deviations and Correlations of the Variables

	Mean	**S.-D.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**
1-Gender[a]	0.48	0.50	1.00																	
2-Age	41.33	9.49	0.07	1.00																
3-Immigrant[b]	0.12	0.32	-0.06	0.13	1.00															
4-Size (empl.)	15.07	19.04	-0.13	-0.10	-0.17	1.00														
5-Est. Profits	2.44	1.15	0.02	-0.05	-0.07	-0.12	1.00													
6-Org. Res. (T1)	4.66	1.30	0.05	-0.06	-0.21	0.17	0.20	1.00												
7-Rel. Res. (T1)	4.65	1.44	0.05	-0.07	-0.19	0.19	0.17	0.61	1.00											
8-Workload (T1)	3.59	2.03	0.04	-0.07	-0.11	0.13	-0.09	0.06	0.06	1.00										
9-Stress (T1)	2.66	0.75	0.00	-0.09	0.10	-0.17	0.00	-0.32	-0.35	0.01	1.00									
10-Exhaustion (T1)	4.19	1.53	0.05	0.01	0.04	0.13	-0.26	-0.21	-0.23	0.20	0.39	1.00								
11-ECC (T1)	3.74	1.46	0.05	0.08	-0.06	0.01	0.23	0.30	0.27	-0.14	-0.42	-0.48	1.00							
12-Org. Res. (T2)	4.78	1.21	0.08	-0.01	-0.22	0.13	0.13	0.54	0.46	0.07	-0.24	-0.09	0.21	1.00						
13-Rel. Res. (T2)	4.84	1.27	0.15	0.01	-0.18	0.16	0.04	0.42	0.53	0.20	-0.30	-0.08	0.17	0.63	1.00					
14-Workload (T2)	3.79	2.04	-0.08	-0.11	-0.11	0.26	-0.32	0.06	0.10	0.56	-0.05	0.23	-0.20	0.08	0.15	1.00				
15-Stress (T2)	2.70	0.82	0.03	-0.10	0.09	-0.21	-0.01	-0.23	-0.27	0.02	0.70	0.22	-0.33	-0.31	-0.36	-0.03	1.00			
16-Exhaustion (T2)	3.65	1.47	0.05	-0.04	0.13	-0.14	-0.05	-0.24	-0.17	0.01	0.50	0.44	-0.36	-0.21	-0.28	0.02	0.62	1.00		
17-ECC (T2)	4.13	1.57	-0.01	-0.04	-0.16	0.20	0.08	0.28	0.20	-0.01	-0.38	-0.25	0.61	0.30	0.27	0.01	-0.49	-0.57	1.00	
18-Market cond. (T1)	1.50	4.53	-0.07	-0.10	-0.04	0.12	0.17	0.23	0.25	0.24	-0.20	-0.15	0.13	0.22	0.29	0.15	-0.12	-0.25	0.25	1.00
19-Market cond. (T2)	0.75	4.48	0.01	0.02	-0.10	-0.01	0.17	0.27	0.22	0.17	-0.15	-0.16	0.19	0.29	0.29	0.20	-0.20	-0.20	0.21	0.50

[a] Gender: Male=0; Female=1

[b] Immigrant: Born in Canada=0; Born elsewhere=1

Thus, H2 is supported. Increased workload at T1 (Std.β=0.061, p=0.284) and the change between the periods (Std.β=0.094, p=0.096) are not significant. Thus, H1 is not supported. The last model explains 29.1% of the change in entrepreneurial stress (Adj. R^2=0.291).

Table 2. Results of Hierarchical Regression Analysis for Change in Stress (T2-T1)

	Model 1		**Model 2**		**Model 3**	
	Std β	p (sig.)	Std β	p (sig.)	Std β	p (sig.)
Gender	0.021	0.662	0.005	0.914	0.036	0.452
Age	-0.068	0.161	-0.078	0.109	-0.054	0.259
Immigrant	0.073	0.143	0.070	0.163	0.055	0.257
Stress (T1)	-0.524	0.000	-0.550	0.000	-0.559	0.000
Size (Empl.)	-0.161	0.002	-0.155	0.003	-0.160	0.002
Estimated Profits	-0.036	0.464	-0.012	0.810	0.017	0.753
Access to Org. Res. (T1)			-0.115	0.059	-0.141	0.068
Access to Rel. Res. (T1)			0.091	0.144	-0.020	0.805
Increased Workload (T1)			-0.006	0.908	0.061	0.284
Market conditions (T1)			0.100	0.050	0.128	0.034
Chg Acc. to Org. Res. (T2-T1)					-0.100	0.120
Chg Acc. to Rel. Res. (T2-T1)					-0.166	0.014
Chg Incr. Workload (T2-T1)					0.094	0.096
Chg Market conditions (T2-T1)					0.119	0.038
n	344		344		344	
$Adj.R^2$	0.240		0.248		0.291	
Δ $Adj.R^2$	0.240		0.008		0.043	

Table 3 provides the regression results for change in emotional exhaustion (T2-T1). Model 2 tests the impact of resources and career shock on emotional exhaustion without considering the effect of stress, while model 3 considers the delayed effect of resources, career shock and stress at T1 on the change in emotional exhaustion. Model 4 includes all the variables in the model. As demonstrated in this model, no variables at T1 can explain a change in emotional exhaustion between the periods with the exception of stress (Std.β=0.470, p=0.000). Furthermore, a change in stress between the periods induced a change in emotional exhaustion (Std.β=0.386, p=0.000). Thus, H3a is supported. While greater access to

relational resources between the periods decreased emotional exhaustion (Std.β=-0.113, *p*=0.034), a change in access to organizational resources had no significant effect on emotional exhaustion (Std.β=0.054, *p*=0.281). Thus, H4b is supported but H5b is not supported. There are two points worth mentioning concerning these results. Firstly, no changes in career shock changed the level of emotional exhaustion between the periods. However, when excluding stress at T1 and the change in stress (T2-T1) (Model 2), the changes in market conditions variable (opportunities/threats) at T1 can change the level of emotional exhaustion between the periods (Std.β=0.142, *p*=0.010). To put it differently, the greater the perceived threat in market conditions at T1, the greater the increase in emotional exhaustion. Secondly, following the mediation procedures (Baron & Kenny, 1986), changes in market conditions (opportunities/threats) at T1 and changes in market conditions (T2-T1) have an effect on stress (Table 2, model 3) (Step 1); changes in market conditions at T1 have an effect on change in emotional exhaustion (Table 3, model 2) (Step 2); and Stress at T1 and change in Stress (T2-T1) impact change in emotional exhaustion (Table 3, model 4) (Step 3); all of which confirm a delayed mediation effect of career shock (changes in market conditions (opportunities/threats)) on emotional exhaustion through stress. Finally, the last model explains 56.8% of the change in emotional exhaustion among entrepreneurs (Adj. R^2=0.568).

Table 4 provides the regression results for change in ECC (T2-T1). Model 2 tests the impact of resources and career shock on ECC without considering the effect of emotional exhaustion, while model 3 considers the delayed effect of resources, career shock and emotional exhaustion at T1 with the change in emotional exhaustion (T2-T1) on the change in ECC. Model 4 includes all the variables in the model. As demonstrated in this model, no variables related to resources or career shock at T1, nor the level of stress, can significantly change ECC. However, the level of emotional exhaustion at T1 can induce a change in ECC between the periods (Std.β=-0.304, p=0.000). The greater the emotional exhaustion at

T1, the greater the decrease in ECC between the periods. The change in emotional exhaustion (T2-T1) also decreases ECC (Std.β=-0.456, *p*=0.000). Thus, H3b is supported.

Table 3. Results of Hierarchical Regression Analysis for Change in Emotional Exhaustion (T2-T1)

	Model 1		**Model 2**		**Model 3**		**Model 4**	
	Std β	*p* (sig.)	Std β	*p* (sig.)	Std β	*p* (sig.)	Std β	*p* (sig.)
Gender	0.034	0.428	0.046	0.284	0.039	0.288	0.040	0.284
Age	-0.062	0.155	-0.056	0.190	-0.005	0.902	-0.011	0.774
Immigrant	0.094	0.035	0.076	0.084	0.032	0.403	0.036	0.342
Exhaustion (T1)	-0.514	0.000	-0.558	0.000	-0.645	0.000	-0.654	0.000
Size (Empl.)	-0.214	0.000	-0.180	0.000	-0.055	0.188	-0.051	0.223
Estimated Profits	0.025	0.590	0.055	0.258	0.006	0.872	0.011	0.789
Access to Org. Res. (T1)			-0.062	0.373	-0.022	0.630	0.022	0.713
Access to Rel. Res. (T1)			-0.106	0.148	0.035	0.458	-0.041	0.517
Increased Workload (T1)			0.061	0.244			0.029	0.520
Market conditions (T1)			0.142	0.010			0.077	0.109
Stress (T1)					0.499	0.000	0.470	0.000
Chg Acc. to Org. Res. (T2-T1)			0.028	0.623			0.054	0.281
Chg Acc. to Rel. Res. (T2-T1)			-0.202	0.001			-0.113	0.034
Chg Incr. Workload (T2-T1)			0.031	0.541			0.003	0.948
Chg Market cond. (T2-T1)			0.036	0.490			-0.007	0.870
Chg Stress (T2-T1)					0.408	0.000	0.386	0.000
n	344		344		344		344	
Adj.R^2	0.382		0.422		0.563		0.568	
Δ *Adj.*R^2	0.382		0.040		0.141		0.005	

Change in access to organizational resources (T2-T1) (Std.β=0.106, p=0.073) and access to relational resources (T2-T1) (Std.β=0.000, *p*=0.994) are not significant. Thus, H4c and H5c are not supported. Following the procedure put forward by Baron and Kenny (1986), stress at T1 and change in stress (T2-T1) impact emotional exhaustion (Table 3, model 4) (Step 1). Stress at T1 (Std.β=-0.287, p=0.000) and change in stress (T2-T1) (Std.β=0.106, p=0.073) also have an impact on ECC (Table 4, model 2) (Step 2). When entering emotional exhaustion at T1 and change in exhaustion (T2-T1) (Table 4, model 4), change in stress (T2-T1) is still significant (Std.β=-0.148, p=0.009). This confirms the partial

mediation of emotional exhaustion between stress and ECC (H3). Finally, the last model explains 40.8% of the change in ECC (Adj. R^2=0.408).

Table 4. Results of Hierarchical Regression Analysis for Change in ECC (T2-T1)

	Model 1		**Model 2**		**Model 3**		**Model 4**	
	Std β	***p* (sig.)**	**Std β**	***p* (sig.)**	**Std β**	***p* (sig.)**	**Std β**	***p* (sig.)**
Gender	-0.067	0.174	-0.046	0.327	-0.025	0.567	-0.026	0.559
Age	-0.057	0.249	-0.066	0.159	-0.069	0.115	-0.070	0.109
Immigrant	-0.125	0.013	-0.075	0.118	-0.072	0.109	-0.057	0.207
ECC (T1)	-0.340	0.000	-0.427	0.000	-0.462	0.000	-0.463	0.000
Size (Empl.)	0.211	0.000	0.105	0.038	0.102	0.036	0.082	0.098
Estimated Profits	-0.035	0.507	-0.022	0.682	-0.029	0.530	-0.012	0.808
Access to Org. Res. (T1)			0.089	0.244	0.037	0.504	0.106	0.140
Access to Rel. Res. (T1)			-0.025	0.751	-0.029	0.600	-0.045	0.551
Workload (T1)			0.031	0.585	-0.005	0.911	0.038	0.474
Market conditions (T1)			0.106	0.076	0.126	0.007	0.073	0.192
Stress (T1)			-0.287	0.000			-0.085	0.213
Exhaustion (T1)					-0.329	0.000	-0.304	0.000
Chg Acc. to Org. Res. (T2-T1)			0.080	0.204			0.106	0.073
Chg Acc. to Rel. Res. (T2-T1)			0.051	0.440			0.000	0.994
Chg Workload (T2-T1)			0.079	0.159			0.076	0.149
Chg Market cond. (T2-T1)			0.064	0.255			0.057	0.277
Chg Stress (T2-T1)			-0.321	0.000			-0.148	0.009
Chg Exhaustion (T2-T1)					-0.534	0.000	-0.456	0.000
n	344		344		344		344	
$Adj.R^2$	0.199		0.322		0.390		0.408	
$\Delta\ Adj.R^2$	0.199		0.123		0.068		0.018	

Discussion

This study provides several key insights into the effect of a career shock on entrepreneurial career commitment through stress and emotional exhaustion, and how resources can help in maintaining stress and emotional exhaustion (which is part of burnout) at appropriate levels. First, relational resources are the most important (if not the only) resources to deal with a career shock in both decreasing stress and

emotional exhaustion among entrepreneurs. Relational resources are about having quality business contacts, quality of emotional support, and rich opportunities to interact with other entrepreneurs (Hanlon & Saunders, 2007). Entrepreneurs require emotional and psychological support from their surroundings (Werbel & Danes, 2010), and it is probably of greater importance in times such as a pandemic and arguably less costly and more readily available than organizational resources. However, relational resources do not have a direct impact on ECC, highlighting the mediating effect through emotional exhaustion and stress. This is also what previous research has found with cross-sectional data (Sardeshmukh et al., 2021; E. St-Jean et al., 2022; Tetrick et al., 2000) and is consistent with the SSO model (Koeske & Koeske, 1993). This process was confirmed over time with two-wave (four-month interval) longitudinal data.

Organizational resources are about having enough access to financial support under appropriate conditions, but also access to quality consulting services, training, and quality feedback on the business. During the pandemic, where many changes occurred and forced businesses to readjust and adapt (Giotopoulos et al., 2022), access to advice and support would normally be quite relevant. However, increasing these organizational resources decreases stress and increases career commitment, but only below the significance level of $p \leq 0.10$. Having good access to this type of resource at T1 caused stress to decrease in the subsequent four months. Organizational resources are more closely related to 'getting things done' in a small business, and this tangible progress in turn increases ECC. Nevertheless, as results below the normally accepted threshold of $p \leq 0.05$ are not presented, these results should be interpreted with caution, and further research is required.

Second, this study contributes to highlighting the drivers of ECC. ECC is the attitude that precludes entrepreneurial exit (Blau, 1989), but specifically exits related to quitting entrepreneurship permanently as a career, and not quitting temporarily as part of an acquisition or to start another business as a serial entrepreneur. In this study, a high level of emotional exhaustion at T1 and an increase within

the period decreased ECC. This is the most important studied factor in explaining ECC, which demonstrates that preventing emotional exhaustion through relational resources and keeping stress at a minimum strongly supports ECC. This study contributes to bridging the gap between health-related issues, access to resources, and the vocational choice of being an entrepreneur by showing how stress and emotional exhaustion are related to ECC, and in identifying the specific types of resources an entrepreneur will access to prevent wanting to permanently quit entrepreneurship as a career (Hessels et al., 2011).

Third, the role of a pandemic as a source of career shock has been highlighted. The results of this study show that changes in market conditions (opportunities/threats) as a proxy for a career shock can explain perceived stress, which in turn leads to emotional exhaustion and a decline in ECC. This result is consistent with previous studies (Rauch et al., 2018; Sardeshmukh et al., 2021) but provides further understanding of the process under which a career shock can lead to a decline in ECC. In fact, a change in the business environment perceived as a threat is a career shock that increases stress but does not directly impact ECC. The mediating effect through emotional exhaustion on ECC was demonstrated in this study with longitudinal data. As relational resources can decrease stress, they can help in ensuring that the career shock (as perceived threats in market conditions) will not generate a decline in ECC.

Workload did not yield conclusive results with respect to increasing stress or emotional exhaustion, nor did using alternative measurement approaches resolve these issues. This is consistent with prior findings in entrepreneurship research (Dijkhuizen et al., 2016). In addition, the cognitive workload or knowledge demands did not produce the same mental strain for entrepreneurs as for employees, because it is perceived by entrepreneurs as an opportunity for professional development (Wei et al., 2015). It should be pointed out that in the context of the pandemic, entrepreneurs are potentially aware that the increase in workload is temporary (i.e., to adjust to public health requirements) and they may be more willing to deal with it without impacting their psychological health (É. St-Jean et al., 2022).

Furthermore, an increased workload may not necessarily be a burden that would be likely to generate stress and strains (Edwards et al., 2014; LePine et al., 2004). For some businesses, and especially in the context of a pandemic, seeing the workload increase, while others are closing their doors, may be perceived favorably, and thus not necessarily detrimental to the entrepreneur. Thus, this may explain the absence of any significant results in this regard.

Implications for research and practice

The findings have several implications for research and practice. First, this study contributes to furthering career shock research in entrepreneurship. A career shock is mainly an external event impacting (positively or negatively) career development and, as such, this concept is consistent with entrepreneurship as a career. The role of career shock in entrepreneurship is one of the most promising fields of inquiry in which to study this concept (Akkermans et al., 2021). Although career shock can be of great relevance in studying the entrepreneurial transition from, and to, salaried employment (Seibert et al., 2021), this study contributes by showing that career shock can also explain entrepreneurial career commitment through stress-strain mediation.

Second, this study contributes to the body of knowledge on ECC, as it provides further insights into the understanding of the critical processes at play in entrepreneurial engagement and exit (DeTienne & Wennberg, 2016; Hessels et al., 2011). ECC is an important concept for understanding the entrepreneurial process and highlights the role of stress and emotional exhaustion in decreasing or improving it. By considering entrepreneurship from a career perspective, ECC becomes a relevant concept to study persistence in entrepreneurship alongside career continuance (Marshall et al., 2019), career commitment (Marshall & Gigliotti, 2020) or career engagement (Amankwah-Amoah et al., 2018). Furthermore, while ECC was considered as a dependent variable in this study, ECC may lead to entrepreneurial exit. However, more research is needed to understand the manner in which ECC can

prevent entrepreneurs from exiting their careers. Furthermore, the "resilience" component of ECC, based on the model put forward by Carson and Bedeian (1994), was used in this study. However, the extent to which the career identity (entrepreneurial identity) (Radu Lefebvre et al., 2021) or the career planning components of the career commitment construct would interact in a career shock to maintain career resilience remain unknown, and require further research.

Third, this study contributes to further supporting the relevance of the Stress-Strain-Outcome model (Koeske & Koeske, 1993) in entrepreneurship and responds to a recent call to further use this theory in entrepreneurship (Rauch et al., 2018). Previous studies show that self-employment can lead to higher short-term psychological distress (Reid et al., 2018) and higher stress (Lee et al., 2020; Stephan et al., 2020), and the type of emotional exhaustion that ultimately leads to entrepreneurial exit (Sardeshmukh et al., 2021). This study uses the SSO model to understand how, and under which conditions, a career shock decreases entrepreneurial career commitment. Although this model does not specifically distinguish the stressor from the perceived stress, it encompasses this distinction, which has allowed us to demonstrate how career shock as a stressor leads to stress, then to emotional exhaustion, and ultimately to a decline in ECC.

Finally, this study contributes to showing the importance of resources in maintaining good psychological health and ECC, with a particular focus on the importance of relational resources. This supports the usefulness of the SSO model in entrepreneurship, which in this context points to the relevance of access to relational resources for entrepreneurs that serve as potential coping mechanism. Thus, policies and services that increase an entrepreneur's capacity to acquire, protect and develop relational resources would be of crucial importance that requires further attention (Lanivich, 2015). Moreover, while the impact of access to resources on well-being and persistence in entrepreneurship has been confirmed, which resources are important in the process have not been previously specified (Marshall et al., 2020). This study provides practical advice concerning two specific resources to which

entrepreneurs should seek access: relational and organizational. The results of this study suggest that relational resources are the most important in dealing with a career shock such as the pandemic. Other types of resources may also be relevant and should be further examined, such as social capital (Stam et al., 2014) or psychological capital (Arshi et al., 2021).

Limitations

This study has several limitations that should be considered. First, a special measure of workload related to the impact of COVID-19 on activities pertaining to managing an SME was developed. However, as no significant confirmations of workload were found in the models in this study, this instrument cannot be ruled out as the cause. More generally, other measures of career shock should be considered in future research. Technology or other macro-environmental changes that could be considered as external enablers or hindrances for the opportunity concept (Davidsson et al., 2020) could easily be considered as a context in which career shock occurs. Second, a career shock can either be positive or negative. Although measures of the changes in market conditions (opportunities/threats) capture this idea very well, the other career shock measure concerning the increased workload did not. Future research should consider the positive or negative nature of the shock. Furthermore, our measures do not assess whether the change triggered a deliberate thought process concerning one's career (Akkermans et al., 2018). This is a measurement limitation. Third, the two-wave design over a four-month timeframe is a limited longitudinal investigation of the phenomenon, which when combined with sample and attrition concerns potentially limits generalizability. To date, there are no clear clues as to a more appropriate timeframe to assess the impact of a career shock on entrepreneurial career commitment. Good results were obtained with a four-month period, but other durations might be more appropriate in future.

Conclusion

While an increased workload does not necessarily increase an entrepreneur's stress level, a negative career shock such as a perceived threat in market conditions certainly may. This increased level of stress provides the conditions for emotional exhaustion (and, ultimately, burnout) to take hold and entrepreneurial career commitment to decline. However, these detrimental impacts on entrepreneurial commitment can be mediated through relational resources that decrease stress and emotional exhaustion. While the full extent of the impacts of the COVID-19 pandemic are likely to remain unknown for years to come, many of the efforts to help entrepreneurs consist of organizational resources. These more tangible resources help with workload concerns and likely to mitigate many of the ill effects that would lead entrepreneurs to abandon their ventures due to traditional resource constraints. However, as the findings from this study demonstrate, another pathway to the iceberg of unfavorable venture exits is likely lurking beneath the water in the form of a decrease in entrepreneurial career commitment due to stress and emotional exhaustion. As policy shifts towards recovery, while the need for organizational resources will remain strong, renewed attention to more intangible support in the form of relational resources is needed to counter the detrimental impacts of stress and emotional exhaustion on entrepreneurial career commitment.

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Appendix 1. Scales Developed or Adapted for This Study

Increased workload (T1). To what extent has the COVID-19 pandemic had an impact on the following aspects of your business?	
Increased workload (T2). Since last June, what is the level of change to the following aspects of your business?	
New clientele	10-point scale, from -5-Significant decrease in sales to +5-Significant increase in sales, 0=Same sales
New products/services	10-point scale, from 0-No changes to products/services to 10- Completely new products/services
Procurement from suppliers	10-point scale, from 0-No changes in procurement to 10-Major changes in procurement
Changes to work organization	10-point scale, from 0-No changes to work organization to 10-Completely different work organization

Access to resources. To what extent do you agree with the following statements: I have easy and sufficient access to	
Access to organizational resources ...quality consulting services ...useful and quality training ...quality feedback on my project ...enough financial support under appropriate conditions	Likert 7 - 1-Completely disagree, 4-Neutral and 7-Completely agree
Access to relational resources …quality business contacts ...quality emotional support ...rich opportunities to interact with other entrepreneurs	Likert 7 - 1-Completely disagree, 4-Neutral and 7-Completely agree

Entrepreneurial Career Commitment. To what extent do you agree with the following statements about your entrepreneurial career?	
1-Sometimes the costs associated with an entrepreneurial career seem too high to me (reversed item). 2-Considering the problems I encounter in my entrepreneurial career, I sometimes wonder if I get enough benefits from it. (reversed item) 3-Considering the problems associated with this career, I sometimes wonder if the personal burden is worth it. (reversed item) 4-The inconveniences associated with an entrepreneurial career sometimes seem too great to me. (reversed item)	Likert 7**:** 1-Strongly disagree, 2-Disagree, 3-Somewhat disagree, 4-Neutral, 5-Somewhat agree, 6-Agree and 7-Strongly agree