Entrepreneurship and Economic Resilience in Times of Crisis: Insights from the COVID-19 Pandemic

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Abstract Exogenous shocks such as the COVID-19 pandemic pose major challenges to firms and even entire economies, moving the concept of economic resilience to the foreground. Market actors need to adequately respond to prevalent crises to secure their market position and long-term survival. Entrepreneurship has thereby been identified as a critical lever in creating resilient economies. Based on their innovative capacities, entrepreneurs are able to dynamically adapt to new market conditions and offer (new) solutions to recent problems. Focusing on Germany, this chapter investigates how entrepreneurship was affected by the COVID-19 pandemic and how entrepreneurs responded to the dramatically changing business environment. It further evaluates current policy approaches meant to support entrepreneurs and strengthen economic resilience. The chapter concludes with a discussion on effective policy instruments aimed at promoting economic recovery and derives policy recommendations.

Keywords Entrepreneurship · Entrepreneurship policy · Economic recovery · Economic resilience · COVID-19

1 Introduction

The COVID-19 pandemic has hit the entire world without warning and has induced severe economic impacts, plunging economies worldwide into a deep recession. In 2020, after ten years of steady growth, the German price-adjusted gross domestic product (GDP) declined by 4.9% compared to 2019. The Coronavirus crisis further led to a state financing deficit of approx. 139.6 billion Euros in Germany in 2020 (Destatis, 2021). These macroeconomic effects of the COVID-19 pandemic were driven by several industry sectors that suffered the most from the multiple

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lockdowns, e.g., the hospitality sector, arts and entertainment, retail, and personal services (Bartik et al., 2020), along with a general decrease in consumption. By contrast, the German online retailing sector recorded a real increase in sales of almost 30% compared with the same period of the previous year (Destatis, 2021). Hence, the COVID-19 pandemic has produced both winners and losers: Whereas some firms were able to respond adequately to the changing business environment and benefit from resulting market disequilibria, other firms were unable to react.

This attracts special attention to the concept of "resilience". Williams et al. (2017) describe resilience as the ability to maintain "reliable" functioning in times of crisis and disruption. Resilience thereby relates to the utilization of resources before, during, and after an exogeneous shock, thus responding adequately and recovering quickly from prevalent crises. Bergami et al. (2021) highlight the importance of dynamic capabilities that enable entrepreneurs to not only survive but effectively address and adapt to changing business environments. According to Teece et al. (2016: 18), dynamic capabilities describe a firm's ability to "integrate, build, and reconfigure internal and external capabilities to address changing business environments." Helfat et al. (2007) thus state that dynamic capabilities enable firms to translate firms' (newly created) resource base into innovation. Especially, the adoption of digital technologies and the transformation of business models has thereby served as a means to cope with the environmental changes caused by the COVID-19 pandemic (Priyono et al., 2020).

In order to support market actors during the COVID-19 pandemic, governments worldwide tried to support existing firms and initiated immediate measures. The US government provided funds to small businesses via the Paycheck Protection Program, the UK government implemented the Coronavirus Job Retention Scheme, and the German government provided lump sum payments, loans from the state-owned investment and development bank KfW, taxation support as well as short-time work compensation schemes among others. Common to all these policy initiatives was the effort to mitigate the negative consequences of the COVID-19 pandemic, aimed at protecting employment, enabling the continuation of economic activities across industries. Whereas most of these measures focused on incumbent firms, (innovative) start-ups, i.e., productive entrepreneurship, have received less attention (Kuckertz et al., 2020).

Focusing on Germany, the purpose of this chapter is to investigate how entrepreneurship was affected by the COVID-19 pandemic and how entrepreneurs responded to the dramatically changing business environment. Entrepreneurship serves as a critical lever in creating resilient economies and shapes future economic activities. Based on their innovative capacities, entrepreneurs are able to dynamically adapt to new market conditions and offer (new) solutions to recent problems. Hence, a clearer understanding of the short- and long-term impacts of the COVID-19 pandemic on (innovative) entrepreneurship is needed. This chapter evaluates current policy approaches meant to support entrepreneurs and strengthen economic resilience, concludes with a discussion on effective policy instruments aimed at promoting economic recovery, and derives policy recommendations.

2 The COVID-19 Pandemic, Economic Resilience, and Entrepreneurship

Although firms tend to decrease investments in innovation during economic crises (Archibugi et al., 2013), entrepreneurial innovations are crucial in times of crisis to address existing (economic or societal) challenges. Kuckertz et al. (2020: 3) state that "being innovative is a precondition of being resilient, as innovative businesses tend to constantly and continuously anticipate and adjust to a broad range of crises." The COVID-19 pandemic with its multiple lockdowns and social distancing restrictions has thereby changed the way innovation is pursued. According to a recent online survey of almost 2000 firms in Germany, the Coronavirus crisis has placed additional burdens on economic agents and simultaneously changed innovation patterns (BMWi, 2021): Especially, the utilization of platforms and the digitization of innovation processes have been intensified. This is in line with Acs et al. (2021) who note that platform-based ecosystems serve as a force of "creative destruction." Kuckertz and Brändle (2021: 20) add to this line of argument and state that entrepreneurship becomes "creative reconstruction," enabling firms to move beyond pre-crisis levels: "When entrepreneurial activity comes under pressure from a major exogenous shock, entrepreneurship in itself is an integral and essential part of the solution."

Studies focusing on economic resilience show that regions with high levels of entrepreneurship are better able to cope with exogeneous shocks (Bishop, 2019; Williams & Vorley, 2014). These findings are also confirmed in the context of the COVID-19 pandemic. The analysis of Ebersberger and Kuckertz (2021) suggests that innovative start-ups were able to respond much faster to changing business environments in comparison with incumbent firms and research institutions. Especially opportunities for digital entrepreneurship arose during the COVID-19 pandemic, highlighting the importance of the digital transformation across industries (Modgil et al., 2021). Kuckertz et al. (2020: 5) consequently note that "an entrepreneurial region is characterized by the resilience of its enterprises and entrepreneurial activity can contribute to restructuring and adaptation in the aftermath of the crisis." Hence, resilient entrepreneurial ecosystems are able to make economic, technological, and societal impacts (Audretsch et al., 2019).

However, entrepreneurial patterns across gender, race, and immigrant status vary significantly and have been affected differently by the COVID-19 pandemic. Focusing on the United States, Fairlie's (2020) study reveals that African American as well as Latinx business owners experienced major losses, eliminating 41% and 32% of active business owners, respectively. In addition, immigrant business owners as well as female business owners suffered disproportionately. Graeber et al. (2021) confirm the existence of this gender gap also for Germany, which has its origin in the self-selection of female entrepreneurs in industries that were more severely affected by the COVID-19 pandemic. Thus, the Coronavirus crisis has exacerbated inequality and has placed additional burdens on marginalized entrepreneurs.

Overall, the fluctuation in the commercial economy in Germany has decreased significantly in 2020, as both the number of start-ups and the number of firm liquidations have declined (Kay & Kranzusch, 2020). Contrary to the trend in start-ups, the number of part-time business start-ups increased in 2020. As expected, the pandemic led to a particularly sharp decline in the hospitality, arts and entertainment, and other personal services sectors. The share of foreigners among entrepreneurs fell slightly in 2020, which may be explained by the entry restrictions in the course of the COVID-19 pandemic. Interestingly, the Coronavirus crisis has delayed the implementation of plans to start a business, but rarely prevented it completely (Metzger, 2021). Experts thus expect that an end of the pandemic-related restrictions will be accompanied by an increase in start-up activities, especially in the sectors heavily affected by the restrictions.

3 Entrepreneurship Policy in Times of Crisis

In the course of the COVID-19 pandemic, governments worldwide were forced to take immediate action to avoid employment losses as well as severe negative economic and social consequences. Hence, a core focus was put on the enhancement of incumbent firms' financial capital, almost neglecting necessary support for start-ups. Belitski et al. (2021: 1) yet emphasize that policy initiatives as a response to the COVID-19 pandemic should not only shield employment and economic activities of incumbent firms, but also create "productive entrepreneurship and resilient location-specific entrepreneurial ecosystems." Conflating the uncertainty perspective, the resilience perspective, and the opportunity perspective of existing research on the COVID-19 pandemic, Kuckertz and Brändle (2021) present a comprehensive overview of various political fields of action related to effective entrepreneurship policy: (1) To address the uncertainty-resilience link, policymakers should offer support beyond financial capital and especially assist marginalized entrepreneurs, (2) to address the uncertainty-opportunity link, policymakers should try to reduce uncertainty wherever possible and increase the incentives for post-crises growth, and (3) to address the resilience-opportunity link, policymakers should reflect on entrepreneurial responses during the COVID-19 pandemic, enable creative reconstruction, and prepare for future crises.

In the course of avoiding business failures, many governments offered rather indiscriminate financial support to firms. Focusing on Germany, Dörr et al. (2021) identify resulting adverse effects of these "whatever-it-takes" aid measures, potentially undermining market dynamics and associated cleansing mechanism of economic crises. Based on the Mannheim Enterprise Panel, the authors find a backlog of insolvencies, affecting in particular small firms. Hence, policy trade-offs exist in times of crisis (Zoller-Rydzek & Keller, 2020): On the one hand, policymakers need to avoid high unemployment rates—in the case of the COVID-19 pandemic induced by a drop in demand along with a shortage of capital; on the other hand, policymakers need to avoid the creation of zombie firms by providing too high

levels of loans (firms that would fail if they would not be kept artificially alive by the provision of additional financial capital by the government) that imply higher public spending in the long run. Ragnitz (2020) thus highlights that policymakers need to separate corona-related structural adjustments from market- or policy-driven transformations.

Ratten (2020) further argues that successful policy measures need to consider the wider attributes of an entrepreneurial ecosystem as well as the various entities engaged. Audretsch et al. (2022) follow this line of argument emphasizing the importance of the institutional, cognitive, technological, and social context. Kuckertz et al. (2020) synthesize four major challenges arising from the COVID-19 pandemic, conceptualizing associated policy options: (1) avoidance of immediate start-up failure due to a lack of liquidity by offering wage subsidies and direct payments, (2) adaption to changing business environments by facilitating digital transformation, (3) continuation of start-up growth by boosting an innovative business climate and nurturing knowledge diversity, and (4) responsiveness to potential mismatches by continuously evaluating demands of start-ups and considering future growth trajectories. Thus, a multitude of policy measures seems to be necessary to address current and future challenges for entrepreneurship in the course of the COVID-19 pandemic. Wölfl (2021) consequently suggests that policymakers should address well-known barriers to entrepreneurship (e.g., financing gap, bureaucratic burdens, fear of failure) and additionally develop policy instruments that particularly focus on innovative start-ups that are better able to flexibly adapt to changing business environments instead of prolonging the survival of nearly insolvent firms (Dörr et al., 2021).

4 Conclusion

The present COVID-19 pandemic has shown the vulnerability of economies and their economic actors, yet has also highlighted the importance of economic resilience. Following the definitions of Williams et al. (2017), the allocation and utilization of resources before, during, and after crises determine the responsiveness of economic actors. Consequently, the ability to innovate, adapt to changing business environments, break with business routines, create novel business models, hence exploit new opportunities, and act entrepreneurially constitutes a crucial factor in how economies cope with the COVID-19 pandemic. It is thereby not the single economic actor, but the ecosystem as a whole that decisively affects the responsiveness of economies. Taking a system perspective has thus proven to be beneficial (Acs et al., 2014).

Policymakers need to build resilient entrepreneurial ecosystems that are able to continuously recover from and adapt to exogenous shocks (Roundy et al., 2017), considering the underlying dynamics of entrepreneurial ecosystems (Cantner et al., 2021). Kuckertz and Brändle (2021: 23) follow this line of argument and state that "policy support should not only aim to tackle funding gaps for new ventures [. . .] but

additionally strengthen entrepreneurs' broader support systems such as the entrepreneurial ecosystem before and during a crisis." It is about balancing governmental support to on the one hand build resilience (preparedness before crises, responsiveness during crises, and recovery after crises) and on the other hand promote entrepreneurial action, as entrepreneurship and economic resilience are interrelated concepts that are likely to reinforce each other.

Future research should broaden our understanding of the interconnectedness of entrepreneurship and economic resilience and particularly focus on the role and impact of (regional) resource allocation and deployment. Scholars should further investigate different types of resources that are necessary for building and maintaining economic resilience. Interestingly, scientists seem to be hardly affected by the COVID-19 pandemic, as the Coronavirus crisis appears to be rather a driver than a barrier to scientific entrepreneurship (Bijedić, 2020). Future studies should investigate the underlying mechanisms of these differences. Moreover, more research is needed that focuses on the short-term but especially also long-term consequences of policy interventions on entrepreneurial activities and resulting economic resilience, as economies with the most effective policy instruments will be best able to withstand future crises.

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