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IZA DP No. 14583

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ABSTRACT

Government Intervention and Business Response as Determinants of Business Continuity amid COVID-19: The Case of Jordan and Morocco

This paper provides new insights into the role of governments and businesses in responding to pandemics in the Arab region. It uses the COVID-19 World Bank Enterprise Survey Follow-up dataset to examine the degree of business endurance in Jordan and Morocco amid the pandemic. Relying on the probit regressions, the empirical findings suggest that businesses that assumed resilient strategies such as establishing an online presence and converting production are more likely to remain open, whereas firms that adopted remote working are less likely to survive. This is due to the unpreparedness of firms and the limited availability of technologies in Jordan and Morocco for teleworking. Further, firms that expected future government supports are more likely to report closure. Finally, our results do not provide evidence that government grants and measures and the level of online sales are statistically significant in our model. The model used also offers further testable hypotheses for future research to comprehend the significance of the response of businesses to unprecedented shocks.

JEL Classification: H11, H12, O53

Keywords: business continuity, business response, government intervention, remote working, COVID-19, Jordan, Morocco

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1. Introduction

As the novel Coronavirus (COVID-19) continues its spread around the world as a contagious pandemic, economic contagion is now spreading at a faster pace than the virus itself. With over 94 million corona cases[1] worldwide, the outbreak contracted the global economy and disrupted supply chains. Businesses in various industries responded by converting their production lines, cutting costs, investing in their online presence, adopting remote working, laying off labor, and in some cases shutting down temporarily or permanently.

The global pandemic, accompanied with stringent lockdown measures and uncertainty, hindered the global efforts towards a prosperous 2020 economic outlook (International Monetary Fund (IMF), 2020a). This forced policymakers to revisit their fiscal and monetary policies to respond to the spillover effects of the outbreak on the socio-economic situation. A significant response strategy for governments to adopt should entail business needs and health/preventive measures as COVID-19 represents a devastating economic shock to the world's economy.

In order to design balanced and comprehensive policies that address the implications of COVID-19, the identification of the crisis as an endogenous or exogenous shock is decisive. Various studies and theories were established in this regard with opposing views. Whereas Kelkar and Nathan (2020) claim that realizing COVID-19 as an endogenous shock is the first step that should be followed by mapping the relation between humans and nature and incorporating the natural world into economic theories; Danielson et al. (2020), on the other hand, argue that COVID-19 is a purely exogenous shock. They also question whether it will be absorbed by the financial system or it will trigger underlying economic and financial vulnerabilities.

As partial and full lockdowns are being adopted by almost all countries to limit the spread of the virus, businesses were no longer free to open (physically serve), and this has led to a significant reduction in their revenues, which in several cases resulted in businesses shutting down – temporarily or permanently – thus inducing millions of jobs to be lost, thus placing additional pressure on stimulus packages provided by governments.

As companies and households rely on their revenue to service debt, the latter requires immediate arrangements and cooperation by both business owners and government officials. Economies are

[1] As of 16 January 2021: https://www.worldometers.info/coronavirus/?utm_campaign=homeAdvegas1?

likely to face liquidity concerns that may not occur immediately but presumable by 2021, if an emergency action plan is not established. Government intervention should not be limited to health-preventive measures and increasing the capacity of the health system but should also encompass immediate financial and technical assistance to businesses to overpass the pandemic.

Businesses, in turn, should reinforce their online presence, given the surge in online sales globally, and design effective business continuity plan, as temporary adjustments (Kappel, 2020; Balis, 2020). In this regard, Baptista (2020) claims that 51 percent of companies do not have business continuity plan to combat coronavirus the outbreak, which amplifies the arguments that businesses did not adequately invest in their preparedness to address emerging risks and will more likely be vulnerable to the effects of the outbreak on their business continuity.

The Arab region has been highly hit by COVID-19 compounded with a simultaneous sudden drop in oil prices. This double shock occurred in a fragile regional macroeconomic framework that had already been deteriorating over the recent past. Businesses in the region lost $420 billion in market capital in the first quarter of 2020 and at least 1.7 million jobs are expected to be lost in 2020 due to the pandemic and the consequent distancing measures (United Nations Economic and Social Commission for Western Asia (ESCWA), 2020). Exceptionally, interventions and adjustments in the Arab region should be twofold and specular. Flattening the infection curve by implementing physical distancing and investing in the healthcare system should not be at the expense of steepening the economic recession curve.

In an effort to ease some of the pandemics' financial burdens in the short term, e.g. Jordan, Egypt, and Tunisia, and upon their request, had received financial assistance from the International Monetary Fund under the Rapid Financing Instrument (RFI) scheme (IMF, 2020b; IMF, 2020c; IMF, 2020d). Morocco, for instance, mobilized additional resources in the form of credit guarantees to support businesses[2].

Given the high uncertainty and the absence of a global inclusive strategy that leaves no one behind, there is still no strong signals of when this predicament will end and economies will recover. However, an immediate support strategy is certainly required to enable establishments to perform

[2] See Policy Responses to COVID-19, International Monetary Fund (https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19).

better and have a moving forward trend. For that, the government and businesses in Jordan and Morocco had to respond through online presence, remote working, and converting production lines on business continuity amid COVID-19.

As such, this paper empirically investigates the significance of the latter adjustments. It is structured as follows: section 2 offers a literature review on the impact of government intervention and the responses of businesses on operations, section 3 outlines the data and models utilized, and section four describes the main findings and insights. Lastly, section 5 concludes the paper and provides a set of recommendations for governments and businesses.

2. Literature review

The debate on the effectiveness and stringiness of distancing measures and their impact on the economy has been increasing the record of the first coronavirus case. Literature around the role of the government, especially in terms of financial and technical assistance, and businesses in responding actively and timely to the pandemic is relatively rich. This section summarizes the most prominent studies.

Recently, Ashraf (2020) argues that government intervention, such as physical distancing, awareness, testing, and quarantining policies, has both positive and negative impacts on the economy, with the net effect being ambiguous. Whereas another study on whether pandemics depress the economy reflecting on the 1918 Flu (Correia et al., 2020), concludes that pandemics are associated with economic disturbances in the short run regardless of the stringency of the measures; however, in the medium term, non-pharmaceutical interventions proved to reduce the transmission of the disease without necessarily further depressing the economy.

A study by Bartik et al. (2020) examined the effect of COVID-19 on the performance and expectations of small enterprises in the United States revealed that 70 percent of surveyed firms plan to apply for funding through the Coronavirus Aid, Relief, and Economic Security (CARES)[3]

[3] The Coronavirus Aid, Relief, and Economic Security Act (CARES) provides for Economic Impact Payments to American households of up to $1,200 per adult for individuals whose income was less than $99,000 (or $198,000 for joint filers) and $500 per child under 17 years old – or up to $3,400 for a family of four.

Act. Yet, most of them encountered various obstacles related to the willingness of the government in securing loans, bureaucratic process, and the preference of non-debt assistance.

Craven et al. (2020) anticipates that COVID-19 recovery will be digital, as statistics related to consumer behavior reveal that the use of digital platforms by customers is intensifying. Data from the US, UK, France, Germany, Spain, Italy, India, and Japan shows that purchases online post-COVID-19 are expected to grow further (Charm et al., 2020). This also reinforces the opportunities of an online presence for businesses pre-and post-COVID-19. The results are closely related to the projected insights from this paper, in which businesses are encouraged to establish an online presence to adapt to the implications of the pandemic and to maintain market and business continuity.

Evidence from various studies conducted in the Arab region reveals that firms are aiming for financial support and subsidies to deal with the implications of the pandemic on their business continuity. Findings from a joint International Labour Organization (ILO), United Nations Development Programme (UNDP) and Fafo Foundation rapid assessment of 1190 enterprises across Jordan during the lockdown show that 67 percent indicated that they were uninformed of any provision packages or measures available to mitigate the impact of the crisis and 53 percent of businesses considered direct financial support decisive to deal with the situation (Kattaa et al., 2020).

Other studies in the region indicated that various internet-based businesses are witnessing an increase in demand and revenues. A study by WAMDA and Arabnet (2020) found that most startups in e-grocery, EdTech, and fintech saw an increase in demand reflected in positive revenues. Furthermore, 20.8 percent of the respondents claimed that they have executed a new business model to respond to the pandemic and 19.6 percent launched new marketing campaigns. According to the study by the Fafo, ILO and UNDP (Kattaa et al., 2020), 11 percent of the Jordanian firms surveyed introduced innovation and technology applications, one of the most common measures adopted to ensure business continuity. Also, 67 percent indicated that they were not aware of any support packages, and this is largely due to the fact the Jordanian government is largely focusing on formal SMEs as part of its response strategy. The latter packages have had positive effects on businesses, whereby Bennedsen et al. (2020) show that government aid has a strong effect on labor decisions as they experienced better performance and laid off fewer workers.

The study concluded positive evidence between the success of targeted government policy and business continuity which is in line with the aspired results from this paper.

In a recent study testing and measuring the effect of digital surge during COVID-19, De' et al. (2020) reveal that internet services and activities increase from 40 percent in pre-lockdown times to 100 percent after quarantine. Online meetings and conferences experienced a 30 percent improvement in content usage and the flow of data over the internet and all networks have seriously increased and reached a level of 100 percent in some cities. The workforce is adapting new standards and habits and the gig economy has certainly grown using online platforms. This situation created concerns and worries about assured salaries and serious online fraud technologies.

DeFilippis et al. (2020) evaluate how the communication activities among workers transformed after the lockdown period. The overall trend can best be described as an increasing one, from the total number of meetings one worker attends per day, to the average figure of participants per meeting, but these meetings tended to become shorter. Concerning the email activities, results also showed an increasing drift in the post-lockdown period.

Nicola et al. (2020) study the social and economic consequences of the COVID-19 pandemic globally, showed by numbers how all sectors of the world's economy were negatively affected. The finance industry encountered a serious problem due to all the self-isolation policies and lockdown restrictions. The stock and capital market experienced a decline in some of the most important indicators; S&P500, Dow Jones, and NASDAQ decreased sharply until US government secured aid, reliefs, and economic security for Coronavirus. Nevertheless, following the "Whatever it takes" policy, interventions from central banks around the world sustained liquidity levels and prevented further economic shocks.

Our paper contributes to this literature in three ways. First, it presents how business response accompanied by government intervention affects the likelihood of businesses surviving the pandemic and contributes to the ongoing discussion on the role of the government in limiting the socio-economic losses resulting from both the pandemic and the preventive measures adopted. Second, it emphasizes the importance of firms assuming a digital strategy through online presence, remote working, and conversion of their products and services. Lastly, it reinforces the literature

around the importance of the preparedness of businesses and the role of public-private partnerships in mitigating the effects of COVID-19.

3. Research methodology

3.1. Case selection

3.1.1. Jordan

Despite being the second-largest host of refugees per capita (United Nations High Commissioner for Refugees (UNHCR), 2019), an upper-middle-income economy[4] with high human development[5] and a high gross national income per capita of around $10,500 (2019)[6]. Jordan was severely hit by COVID-19. This can be mainly attributed to its lack of preparedness and the fragility of its socio-economic framework, with an elevated unemployment rate of 16.8 percent[7] in 2019 rising to an estimated 23 percent in the second quarter of 2020[8], prevalence of poverty with 15.7 percent of the population living below the national poverty line (2018)[9] coupled with the fact that more people expected to fall into poverty due to the pandemic. Further, the rise in public debt to exceed the psychological threshold of 100 percent in 2020-2021 (Jensehaugen, 2020) in addition to a forecasted five percent economic contraction expected in 2020[10], are all signals that the response strategy necessitates a collaborative approach. Business intervention is crucial for their sustainability and government measures are decisive to limit the transmission of the virus and further downturns in the economy.

Further, as the global economy is suffering, and considering the inflows of remittances amounting to 10 percent of overall GDP (2019)[11] in Jordan, earnings transferred by international migrants are expected to sharply decline, consequently putting additional pressure on the socio-economic situation.

[4] The World Bank, World Bank Country and Lending Groups. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.
[5] UNDP, Human Development Index 2020. http://hdr.undp.org/en/content/latest-human-development-index-ranking.
[6] The World Bank, World Development Indicators. https://data.worldbank.org/.
[7] International Labour Organization, ILOSTAT. https://ilostat.ilo.org/data/.
[8] The World Bank, The World Bank In Jordan. https://www.worldbank.org/en/country/jordan/overview.
[9] The World Bank, World Development Indicators. https://data.worldbank.org/.
[10] IMF, World Economic Outlook Database October 2020.
[11] The World Bank, Migration and Remittance Data. https://www.worldbank.org/en/topic/migrationremittancesdiasporaissues/brief/migration-remittances-data.

In terms of preparedness and vulnerability, the health system capacity in Jordan is restricted, with only 14.7 hospital beds (2017), 23.4 physicians (2018), and 28.21 nurses and midwives (2018) per 10,000 people[12]. Jordan exhibits low levels of spending on healthcare goods and services; 7.79 percent of GDP compared to an average of 12 percent in OECD countries (2018)[13].

3.1.2. Morocco

Morocco, a country with medium human development and a large gender gap[14], was deeply threatened by COVID-19. It is classified as a lower-middle-income economy[15] with a GNI per capita ($PPP) of around $7,600 per capita (2019)[16]. The pandemic has driven the Moroccan economy into a deep contraction – the first recession since 1995. The lockdown coupled with a rapid decline in exports caused by the disruptions in supply chains, fall in tourism receipts, and drop in remittances resulted in a 13.8 percent decline in aggregate output[17].

In terms of preparedness and vulnerability, it is evident that the health system capacity in Morocco is weak and inefficient with only 10 hospital beds (2017), 7.31 physicians (2018), and 13.89 nurses and midwives (2018) per 10,000 people (2017)[18]. Morocco exhibits low levels of spending on healthcare goods and services of 5.31 percent of GDP compared to an average of 12 percent for OECD countries (2018)[19].

3.2. Data and survey

We use the World Bank COVID-19 Impact Surveys Follow-Up to the Enterprise Surveys, conducted in 2020, to help understand the role of government measures and business response on business continuity amid the pandemic. The outlined survey provides unique and up-to-date insights into the impact of COVID-19 on the private sector globally covering a broad range of topics including access to finance, operations, sales, trade, workforce, policy response, and

[12] World Health Organization, Global Health Observatory. https://www.who.int/data/gho.
[13] World Health Organization, Global Health Expenditure Database. https://apps.who.int/nha/database/ViewData/Indicators/en.
[14] UNDP, Human Development Index 2020. http://hdr.undp.org/en/content/latest-human-development-index-ranking.
[15] The World Bank, World Bank Country and Lending Groups. https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups.
[16] The World Bank, World Development Indicators. https://data.worldbank.org/.
[17] The World Bank, The World Bank In Morocco. https://www.worldbank.org/en/country/morocco/overview.
[18] World Health Organization, Global Health Observatory. https://www.who.int/data/gho.
[19] World Health Organization, Global Health Expenditure Database. https://apps.who.int/nha/database/ViewData/Indicators/en.

expectations. The surveys are comparable over time and across countries. This paper examines firms located in Jordan and Morocco on topics related to operations, workforce sales, and policy response; thus, our dataset allows us to have cross-sectional data. The countries examined comprise a random sample of 601 and 1,096 observations for Jordan and Morocco respectively; however, after excluding observations with missing values and performing an in-depth data cleaning exercise, the final sample is reduced to 943 firms, 7.32 percent of which are temporarily closed and 92.68 percent open. The low number of observations is attributed to data cleaning resulting from missing data and 'no reply' observations, which is not surprising given that the studied countries are located in the Arab region where data availability is of high concern.

3.3. Variables

3.3.1. Dependent variable

The dependent variable used for this paper is related to operations where the surveyed establishments respond on whether it is currently open, temporarily closed (suspended services or production), or permanently closed. However, for the purpose of the study, we will be examining a model where we will not include the permanently-closed establishments. After conducting data cleaning, only firms that are temporarily closed and open were considered. As such, we use the dependent as a dummy variable equal to 1 if the establishment is open and 0 otherwise.

3.3.2. Independent variables

The explanatory variables are classified into two categories; policies on one side and operations and sales on the other. Category one, related to policies, includes two variables related to government intervention; the first on whether the establishment has received any national or local government support in response to the crisis (responding by yes; no, but expect to receive it in the next three months and no) where it was divided into two dummy variables with an expectation to receive government support in the next three month as an expectation variable. The second examines if government grants are the main source used to deal with cash flow shortages (taking the value 1 if the respondents claim government grants as a main source and 0 otherwise). Category two is related to business response and it comprises four variables; (1) did the establishment experience starting or increasing business activity online in response to the COVID-19 outbreak? (takes value 1 if yes and 0 otherwise), (2) did the establishment start or increase remote work

arrangement? (two variables were included; one qualitative and another one quantitative), (3) Currently, what is the share of this establishment's online sales? (taken as logarithmic), (4) Has this establishment converted its production or services in response to COVID-19 (takes a value if yes and 0 otherwise). The sector in which the establishment operates is introduced as a firm characteristic where it is categorized into three categories, retail services, manufacturing, and other services.

Table 1 summarizes the definition and summary statistics of the selected variables in the analysis. We observe that out of the 943 responding firms, 32.56 percent started or increased business activity, 20.47 percent converted production or services and 20.36 percent started or increased remote working in response to COVID-19. The mentioned statistics serve as key insights that will support the analysis in concluding that the establishments studied are unprepared and did not respond timely to the implications of the outbreak. The majority of the studied sample did not receive any national or local government measures (73.6 percent) and do not consider government grants as a main source to deal with cash flow shortages. Around five percent of the sample expect to receive national or local government support in the next three months. In terms of sector, 43.16 percent of the firms belong to manufacturing, 16.33 percent operate in retail services and 40.51 percent perform other services.

3.4. Methodology

In order to better understand how government intervention and business response to COVID-19 variables influence the decision of firms in operating or temporarily shutting down, the below regressions were conducted:

$$Y_i = \beta B_i + \delta G_i + \theta S_i + u_i$$

The probit model is used to run the regression for the business continuity, dummy variable. B_i represents a vector of business response variables including remoting working, conducting business activity online, share of online sales, and if conversion in production has been implemented. G_i represents a vector of government intervention variables including government grants, expectations regarding government intervention, and if establishments received local or national government support. S_i is a vector of individual characteristics including the sector. The u_i is the error term. Five models will be presented and analyzed in the next section to better account for the impact of each set of the independent variables. In order to account for heteroskedasticity,

given the relatively low number of observations, and to avoid biased estimators, robust standard errors are reported.

4. Empirical results

Table 2 reports the marginal effects of the probit model with business continuity as a dependent dummy variable. Five models are presented to better understand the individual impact of business response and government intervention on business continuity. Model (1) presents the impact of business response on the likelihood of the firm being open, model (2) presents the impact of government intervention on the likelihood of the firm being open, and model (3) presents the impact of both business response and government intervention, accounting for remote working as a quantitative variable, on the likelihood of the firm being open. Lastly model (4) presents the impact of both business response and government intervention, accounting for remote working as a dummy variable, on the likelihood of the firm being open while model (5) adds to model (4) the characteristic indicator and sector.

It can be observed that the online activity variable is consistently positive and significant variable, where firms conducting business online are significantly more likely to remain open than firms that did not establish an online presence by around 68.3 percent. Another striking strong positively significant variable is the converted variable, examining whether the establishment has converted its production or services in response to COVID-19, showing that firms that converted production are more likely to remain open than firms that did not update their processes by 57.2 percent.

It is evident that firms that adapted to the outbreak and confronted to the concept that doing business as usual no longer holds, are better performing and resisting the negative implications of the pandemic. While many businesses fail, some are growing rapidly. This applies to a number of Internet-based firms, which include online entertainment, food distribution, online shopping, online education, and remote work solutions (Donthu and Gustafsson, 2020).

Our results add to the ongoing debates on whether a new normal will emerge post-COVID-19 especially in terms of doing business. Indeed, Rios (2020) argues that during this pandemic, entrepreneur's contingent on a brick and mortar store open to the public were particularly hard hit. As legislation pressured shops and stores to close and restrict their operations, companies switched to digital portals to survive the outbreak, which is in line with the results obtained. Craven et al.

(2020) in their effort to identify the implications of COVID-19 on companies, reinforce the argument that investing in online presence and converting production are crucial business responses by asserting that "companies should invest in online as part of their push for omnichannel distribution; this includes ensuring the quality of goods sold online. Customers' changing preferences are not likely to go back to preoutbreak norms".

Another study from the United States (Baldwin et al., 2020) reveals that 79.5 percent of respondents supported measures related to stay-at-orders and nonessential business closure. These statistics reveal preferences related to the behavior of consumers who support the closure of nonessential business closure and indeed prefer placing orders online. As such, for establishments not to lose market share, they should invest in their online presence and reimagine their products and processes.

Patterns shifts in the behavior and preference of consumers has been observed with the emergence of the outbreak. Insights from a global consumer sentiment research conducted in 11 countries, Europe, USA, India, and China, reveals that consumers appetite for online shopping is rising. 59 percent of customers revealed that they had significant levels of contact with physical stores pre-COVID-19, today this portion decreases to less than 24 percent (Capgemini, 2020).

The findings of this paper support the study conducted by Fafo, ILO, and UNDP that emphasizes that assessments performed on businesses in Jordan revealed the limited preparedness of business to dynamically acclimatize and adjust models for survival and that the 18 percent of the surveyed enterprises who are using digital platforms were sustainably better prepared to adapt to the crisis and sustain their customer base or even expand it (Kattaa et al., 2020).

Moreover, another significant variable across the five studied models is remote working. We find that firms that shifted to remote working are more likely to be temporarily closed. The negative relationship looks shocking at first, yet after examining the drivers, the findings become more evident.

Remote working requires workers to have a stable Internet connection at home and to be well equipped with the necessary tools, equipment, and software to perform the tasks remotely. The majority of small and medium enterprises (SMEs) depend on minimal and primitive infrastructure, arbitrary procedures and exasperating communication. Despite it being a solution to many, remote

working brings extra challenges for small-sized companies (Hopkins, 2020). With over 90 percent of firms in the Arab region classified as SMEs (Abajyan et al., 2019), it can be anticipated that limited IT infrastructure and ad-hoc procedures hindered the efforts of a smooth transition to remote working.

Firms, as well as governments, in Jordan and Morocco, did not invest sufficiently in their information and communications technology pre-COVID-19 and did not provide adequate levels of training to staff. These arguments are supported by the figures related to Internet access, ICT adoption, and staff training. For instance, the percentage of the population using the Internet [20] in Jordan and Morocco is 66.79 percent (2017) and 74.38 percent (2019), respectively[21]. The Enterprise Surveys (2019) reveal that 16.9 percent of firms offer formal training in Jordan compared to 35.7 percent in Morocco[22]. General formal training serves as a proxy for digital skills training given the lack of such data in the studied countries. Further, Jordan and Morocco are ranked 69th and 77th respectively on the Information and Communications Technology Index, a sectoral index of the Global Knowledge Index 2019[23], measuring the levels of ICT inputs and outputs in countries.

It is worth noting that the adverse association could be attributed to a time-lag period where firms are setting up their infrastructure to adapt to the pandemic, which will allow them to regain their position in the market. However, if this is the case, the results provide a signal that firms are not resilient and well-equipped to respond to risks.

After analyzing the significant variables related to business responses to COVID-19, we now aim to analyze whether there is a significant impact of government measures and grants on business continuity. In terms of government intervention, results do not show a significant impact on the decision of the firm either to continue operating or to temporarily shut down. Yet, the expectation of firms about the receipt of government support in the next three months is a significant predictor of the likelihood of firms staying in the market. Firms that expect to receive government support in the coming period are more likely to be temporarily closed by an estimate of 40.2 percent. The

[20] Based on the latest available data.
[21] International Telecommunicaiton Union (ITU), Country ICT Data. https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx.
[22] The World Bank, Enteprise Survey. https://www.enterprisesurveys.org/.
[23] Mohammand Bin Rashid Al Maktoum Knowledge Foundation and UNDP, Global Knowledge Index 2019. http://www.knowledge4all.org/.

negative relationship is explained by the fact that firms who are expecting to receive government support are either financially unstable and delaying their total shut down or are aware, given the political context, of the inability of governments in meeting the businesses' expectations; thus decided to temporarily shut down to limit their losses. The latter is highly attributed to trust between businesses and governments and government effectiveness in the studied countries.

Government effectiveness, as measured by the World Bank's Worldwide Governance Indicators[24], positions Morocco and Jordan in middle ranks (47 and 51 percentile ranks, respectively) connotating that they are likely to possess the ability to design short-term/immediate responses to the public health threat and direct economic concerns through emergency allowances for those most vulnerable, creation of special funds to manage the pandemic, and limited financial relief to formal and informal workers. However, the swiftness of longer-term recovery will be noticeably affected if trade, migrant remittances, tourism and investments remain stifled.

The negative correlation between government measures to flatten the curve and the profundity of economic disruption resulting from the severity of the pandemic necessitates resetting the relationship between government and businesses as they are the most affected by the pandemic and government measures. Future integration between the public and private sector is critical in mending what's broken and grasping new opportunities (Weidemeyer, 2020). However, collaboration in the context of Jordan and Morocco is not evident given the ineffectiveness of government in addressing the disruption, absence of trust and fragility and persistence of economic instability. Based on data from the Arab Barometer Wave V (2018)[25], 60 and 67 percent of respondents in Jordan and Morocco respectively show not very much trust and no trust at all in the government, with similar results in respect to local governments. Further, at the time of the study, 76.9 percent and 64.3 percent of the respondents in Jordan and Morocco respectively recognized that the current economic situation is bad or very bad.

Bartik el al. (2020) conducted a survey on how small businesses are adjusting to COVID-19 in the United States and revealed that a substantial number of firms said that they would not take the CARES assistance provided by the American government in an effort to support businesses. 30 percent cited that they do not think that they would meet the requirements and nearly 20 percent

[24] The World Bank, The World Governance Indicators, 2020 Update. https://info.worldbank.org/governance/wgi/.
[25] Arab Barometer, Wave V 2018-2019. https://www.arabbarometer.org/surveys/arab-barometer-wave-v/.

said that they are not sure that the government would forgive the debt. Interestingly, these numbers are relevant to Jordan and Morocco where trust in government and government effectiveness is lower than that in the US.

5. Conclusion and policy implications

As the COVID-19 pandemic is still on course for tens of thousands of daily deaths, governments and businesses are competing rather than cooperating in finding solutions to the pressing health and socioeconomic problems. COVID-19 has shown that not only the health system is fragile, but so are businesses, models and infrastructure, and economies.

The aim of this paper, beyond showing the significance of business responses and government interventions on business continuity, is to contribute to the global discussion on designing a comprehensive roadmap to address the health and economic implications of COVID-19. As previously mentioned, the majority of businesses in the region examined are SMEs who are very sensitive to market demand reduction, and therefore are financially more vulnerable and crash-strapped.

Given the importance of business response and government intervention in responding to crisis, this paper examines whether the difference between firms that are currently open and temporarily closed could be partially explained by differences in online activity, remote working, government measures, grants, expectations, and converting production. Data from the World Bank COVID-19 Impact Surveys Follow-Up to the Enterprise Surveys is used and the probit regression has been implemented assuming various scenarios.

Overall, we find that establishments that opted for online activity and converted their production in response to COVID-19 are significantly more likely to remain open. Businesses that expect government support in the future are more likely to be temporarily closed. The most striking robust evidence of our study is that businesses that shifted to remote working are found to be less likely to be open and this is highly attributed to modest rates of ICT access and adoption in the examined countries. Our results do not show any evidence that government measures and grants, sector, and the percentage of total online sales have a significant impact on the decision of firms in operating or temporarily shutting down. This unexpected finding can be attributed to firms incurring huge

losses that they perceive governmental intervention as insufficient to jump-start their businesses back.

With only 32.6 percent of the surveyed establishments in the study reporting that they started or increased activity online and 20.5 percent converted their products or services, SMEs establishments in Jordan and Morocco were found in need to implement resilient strategies. Specifically, it requires accounting for digital technologies as key pillars to their business models, such as shifting towards online channels, sourcing from new suppliers and converting to new production.

Governments in the Arab region, today more than ever, have the chance to restore the confidence of their citizens by effectively managing the crisis and adopting inclusive and balanced policies that flatten the death curve but not at the expense of the economic curve. In other words, the policies adopted should be balanced and the trade-off should be absorved by the economy without the need to print money and causing inflation. For example, tax exemption, interest reduction could be good measures. This is possible through measures that support businesses, not only financially but also technically, in shifting towards digital technologies and implementing exceptional rules that ease the process for businesses to adapt to the pandemic.

Finally, as more studies should be conducted in this direction, we urge governments and businesses to report timely data to fill in the gap. This in turn will permit researchers and policymakers to better analyze the situation and propose effective measures.

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Table 1: Definition and descriptive statistics of the dependent and independent variables

Variable	Definition	Obs.	Mean	Std. Dev.	Min	Max
Dependent Variable						
Business continuity	Currently is this establishment open, temporarily closed (suspended services or production), or permanently closed?	943	0.927	0.261	0	1
Independent variables						
Business response						
Online activity	Started or increased business activity online?	943	0.326	0.469	0	1
Online sales	Currently, what is the share of this establishment's online sales?	943	0.639	1.352	0	4.605
Remote work	Started or increases remote working online?	943	0.204	0.403	0	1
Convert	Has this establishment converted its production or services in response to COVID-19?	943	0.205	0.404	0	1
Workforce share working remotely	The logarithmic of, currently, what is the share of this establishment's work	943	0.531	1.205	0	4.605
Government intervention						
Government grants	Since the outbreak of COVID-19, what has been the main source this establishment has used to deal with cash flow shortages? – Government grants	943	0.038	0.192	0	1
Government measures	Has this establishment received any national or local government measures?	943	0.264	0.441	0	1
Expected government measures	Since the outbreak of COVID-19, does this establishment expect national or local government measures in the next three months?	943	0.055	0.228	0	1
Sector						
Sector retail	Establishment operates in retail services	943	0.163	0.370	0	1
Sector manufacturing	Establishment operates in manufacturing	943	0.432	0.496	0	1

Notes: The first column presents the definitions. The second column reports the number of observations. The third and fourth columns report the mean and standard deviation, respectively.

Table 2: Probit regressions results

	(1)	(2)	(3)	(4)	(5)
Business response					
Online activity	0.719***		0.537**	0.699***	0.683***
	(0.214)		(0.213)	(0.217)	(0.217)
Online sales	-0.055		-0.066	-0.046	-0.045
	(0.067)		(0.061)	(0.070)	(0.070)
Remote work	-0.380*			-0.423*	-0.420*
	(0.211)			(0.222)	(0.224)
Convert	0.525***		0.533***	0.573***	0.572***
	(0.194)		(0.198)	(0.195)	(0.196)
Workforce share working remotely			-0.030		
			(0.056)		
Government intervention					
Government grants		-0.012	0.020	-0.069	-0.033
		(0.359)	(0.365)	(0.373)	(0.373)
Government measures		0.195	0.145	0.173	0.151
		(0.155)	(0.158)	(0.162)	(0.163)
Expected government measures		-0.325	-0.391*	-0.405*	-0.402*
		(0.230)	(0.236)	(0.237)	(0.237)
Sector					
Sector retail					-0.061
					(0.173)
Sector manufacturing					0.100
					(0.142)
No. of Obs.	943	943	943	943	943
Pseudo R2	0.045	0.009	0.046	0.054	0.056
Log pseudo likelihood	-235.797	-244.726	-235.479	-233.542	-233.080
AIC	481.594	497.453	486.958	483.083	486.161
BIC	505.840	516.849	525.750	521.876	534.651

Notes: The table reports the marginal effects from a probit regression. The reference group of sector is other services. Robust standard errors are reported in parentheses. *** p<0.01, **p<0.05, *p<0.1.