Are small- and medium-sized enterprises more likely to innovate when facing informal competition? Evidence from Kazakhstan

Received 27 November 2023
Revised 21 December 2023
Accepted 21 December 2023

Tommaso Aguzzi
Tallinn University of Technology, Tallinn, Estonia
Rodica Ianole-Calin
Faculty of Business and Administration, University of Bucharest, Bucharest, Romania, and
Susanne Durst
Reykjavik University, Reykjavik, Iceland and Tallinn University of Technology, Tallinn, Estonia

Abstract

Purpose – This paper aims to investigate whether Kazakh small- and medium-sized enterprises (SMEs) that claim to compete with the informal sector are more likely to invest in innovation than their competitors who do not perceive such pressure.

Design/methodology/approach – Logistic regression and classification trees are performed on the Business Environment and Enterprise Performance Survey (2018–2020) to examine whether the degree of informal competition correlates with a firm's propensity to innovate.

Findings – The findings show that informal sector competition is a critical factor that shapes the organizational behaviour of Kazakh SMEs. There is a stimulating positive effect of informal competition on both product and process innovation, depending on its perceived intensity.

Originality/value – This study challenges conventional thinking that still views informal sector competition as a barrier to innovation and entrepreneurship by assessing whether innovation is compatible with informal entrepreneurial practice.

Keywords Informal sector, Informal sector competition, Innovation, Innovation management, Informal entrepreneurship, SMEs, Kazakhstan, Kazakh economy

Paper type Research paper

1. Introduction

The informal sector employs over 50% of the total labour force, and it encompasses over 90% of micro and small businesses across the globe (ILO, 2022; Medina and Schneider, 2018). Informality is a significant and persistent facet of the world's job markets where about 2 billion workers seek their livelihoods in informal conditions (ILO, 2018). Although the informal economy and related practices are not limited to emerging economies, its prevalence and intensity are much higher in such contexts (Medina and Schneider, 2018; Bonnet *et al.*, 2019). Namely, a substantial portion of economic transactions takes place off the radar of formal institutions. This includes a wide range of jobs and business activities with no work-based social protection, such as street vending, micro-entrepreneurship, home-based work in

This research was realized as part of the EU Commission Horizon 2020 MSCA Innovative Training Networks (MSCA-ITN) project MARKETS: Mapping Uncertainties, Challenges and Future Opportunities of Emerging Markets: Informal Barriers, Business Environments and Future Trends in Eastern Europe, The Caucasus and Central Asia, Grant agreement ID: 861034.

International Journal of Sociology and Social Policy
Vol. 44 No. 5/6, 2024
pp. 499-515

0144-333X
DOI 10.1108/IJSSP-11-2023-0303

global and domestic value chains and short-term contract work (Mukherjee, 2016; ILO, 2022; Bonnet *et al.*, 2019). The widespread informality can be attributed to a combination of factors such as limited access to formal employment opportunities, inadequate social safety nets and regulatory constraints that often discourage formalization (Castells and Portes, 1989; De Soto, 1989). In these contexts, the informal sector often acts as a vital source of income and employment, providing a means for individuals to make ends meet when formal options are scarce (Polese, 2021). Such is the case of Kazakhstan, the central subject of this study, where the average share of the informal economy in the gross domestic product (GDP) is between 30 and 40% (Medina and Schneider, 2018; World Economics, 2023).

The impact of COVID-19 has been particularly harsh on formal and informal small- and medium-sized enterprises (SMEs), employers and employees in Central Asia (ILO, 2022; Narula, 2020). This is because lockdown measures and social distancing regulations have strained social safety nets, returnee migrants and economic activities in the region. Kazakhstan, like many other countries, enforced stringent containment measures that severely disrupted business activities (Elisa, 2021). Among various types of disruptions, previous research has shown that SMEs operating in the formal economy are affected by competition from the informal sector in several ways. First, formal and informal enterprises in emerging and developing economies often share the market in which they operate. Thus, they compete in rather unequal ways for the same customers and resources (e.g. unfair competition from the informal sector remains one of the biggest obstacles to doing business in the region, EIB, 2022). More so, informal firms have a competitive advantage in operating their businesses because they do not have to bear the costs of licenses, respectively, of fiscal and social benefits (Hlioui *et al.*, 2022; McGahan, 2012). Second, the presence of informal competitors on a broader scale can limit access to new financial resources and information, which ultimately reduces the profitability, market share and strategic choices of formal smaller firms (Van Elk *et al.*, 2014). Regarding the last point, the impact of competitive pressure from the informal sector is believed to influence the firm's decision to invest in research and development (R&D) and, implicitly, to innovate (Kouakou, 2023). Recent studies also suggest that competitive pressure from the informal sector is higher for those SMEs that are strongly influenced by environmental institutional factors (e.g. Druică *et al.*, 2019; Durst and Leyer, 2022).

Hence, this paper has two objectives. First, to investigate the relationship between informal competition and innovation activities of Kazakh SMEs in the formal sector and, second, to assess the influence of informal competition on the innovation decisions of the entrepreneurs of these SMEs. With this in mind, this study seeks to answer the following research question: to what extent do informal sector competition, e.g. entrepreneurs' perceptions of its presence and influence on business activity, affect formal SMEs' propensity to undertake (product and/or process) innovation? The nexus between the informal economy and innovation in SMEs is a complex interplay that merits interdisciplinary attention. To achieve our objectives, we draw on a body of literature composed of research on the informal sector, innovation management, small business entrepreneurship and area studies in the region of Kazakhstan. Understanding how competition from the informal sector affects the innovation strategies of formal SMEs can provide valuable insights into the dynamics of innovation in diverse economic landscapes. The innovation management literature in the context of informal sector competition in SMEs suggests that, in environments where informal sector competition is widespread among SMEs, such as in emerging economies, both product and process innovation emerge as effective tools to differentiate from unregistered competitors (Hlioui *et al.*, 2022). The existing literature also suggests that there has been limited research on the impact of competition from the informal sector on product innovation and the interplay between informal and formal firms (Mendi and Costamagna, 2017; Kouakou, 2023; McCann and Bahl, 2016; Pérez *et al.*, 2021). Even though this literature

recognizes developing countries as fertile ground for research, empirical work is primarily limited to BRICS countries (Durst and Leyer, 2022) or macro regions such as Sub-Saharan Africa, Eastern Europe, Central Asia and Latin America (Abbas *et al.*, 2022; Avenyo *et al.*, 2021; Dwibedy, 2022; Pérez *et al.*, 2018; McCann and Bahl, 2016; Miocevic *et al.*, 2022). Moreover, there is a tendency to group countries from one region (e.g. in this case Central Asia) which makes it difficult for policymakers to develop dedicated solutions for different contexts (ILO, 2022). Even though a regional outlook is important to raise awareness, country analyses are more informative in suggesting direct policy changes, as the respective legal frameworks and informal institutions are peculiar to the national context in which SMEs operate (Durst *et al.*, 2021). Consequently, a focus on Kazakhstan seems to be a suitable setting for this research: about 81.5% of the population is employed in sectors with productivity around or below the national average, especially in sectors such as trade and agriculture (OECD, 2023). Additionally, small businesses in Kazakhstan often operate on the margins of the so-called shadow economy (Mussurov *et al.*, 2019).

We use a dataset from the World Bank's Business Environment and Enterprise Performance Survey (BEEPS) about SMEs practices in Kazakhstan and CART (Classification and Regression Tree) trees to investigate the link between the presence of informal competition and formal SME investments in product and process innovation. In addition, we consider the moderating effect of external knowledge, the degree of competition and the existence of a formalized business strategy (Grimpe and Kaiser, 2010).

As the theoretical underpinning of our work, we use the theory of attention-based view (ABV) to understand formal firms' behaviour in the presence of competition in the informal sector (Ocasio, 1997; Brielmaier and Friesl, 2023). The ABV postulates that the limited attentional capacity of firms, and their decision-makers, influences the way organizational issues are addressed (Ocasio and Joseph, 2005; Hambrick and Mason, 1984). Hence, organizations engage with the ecosystem around them by interpreting the issues at hand and by taking appropriate actions that, when repeated over time, lead to patterns of organizational action (Dutton and Dukerich, 1991).

Building on these premises, we anticipate that the informal sector poses a pervasive challenge within a particular context, thereby serving as a catalyst for strategic diversification, and for redirecting focus. Specifically, in the current scenario, this translates to formal SMEs intensifying their investment in product and process innovation. The main theoretical contributions of this paper to the existing literature on informality and innovation are as follows. First, this paper sheds light on informal sector competition as a force of innovation activity among formal SMEs that has not been sufficiently explored (Mendi and Costamagna, 2017; Kouakou, 2023). Second, we show the usefulness of ABV for developing a better understanding of small formal firms' behaviour in the presence of competition from informal firms. Third, the context of Kazakhstan's economy contributes to a better understanding of the dynamics of Central Asian economies where informality is a widespread phenomenon, and thus, it provides more diversity regarding the study of the informal sector.

2. Context and theoretical background

2.1 The Kazakhstani context

In Kazakhstan, the largest and most prosperous country in Central Asia, the economy has long been driven by the mineral sector, particularly oil and gas reserves concentrated in the western regions, and uranium deposits throughout the whole country. However, since 2014, the country has faced challenges like falling oil prices and currency devaluation, leading to efforts in economic diversification in various sectors (e.g. information technology, transport, telecommunications, food processing, and pharmaceuticals). Neoliberal reforms, which

reduced legal constraints on market forces while diminishing the state's regulatory capacity, ushered in simultaneous outcomes of both formal and informal economic growth (Kus, 2014; Sanghera and Satybaldieva, 2022). While classified as a middle-income country, this status does not fully capture the socioeconomic realities of Kazakhstan. Informality clearly stands out as a dominant approach: approximately 2.9 million of Kazakhstan's 8.5 million workers engage in informal employment, with 77% of them being paid employees in registered businesses (Mussurov *et al.*, 2019). In the significant SME sector (accounting for 96.7% of all firms and employing 37.5% of the workforce, OECD, 2020) approximately 40% of formal enterprises compete with informal sector counterparts, viewing this competition as a barrier to their operations (EBRD, 2020). Our study also offers a timely examination of the informal sector in a context often characterized by Western media as rife with crime, political corruption, and authoritarian regimes, providing a nuanced analysis of the actual socio-economic conditions (Koch, 2019).

2.2 Attention-based view as the theoretical underpinning

This paper examines the relationship between informal sector competition and the propensity to innovate through the lens of ABV (Ocasio, 1997; Brielmaier and Friesl, 2023). ABV maintains that attention represents a limited resource and that decision-makers need to "concentrate their energy, effort, and mindfulness on a limited number of issues" to achieve superior performance (Ocasio, 1997, p. 203). Thus, entrepreneurs' commitment to innovation strategy may be undermined if they have to cope with too many competing tasks and goals (Ardito *et al.*, 2021). This issue is exacerbated for SMEs since in these firms entrepreneurs do not usually delegate innovation strategy implementation (Massa and Testa, 2008). Under ABV, the pressure of informality on attention can take at least two shapes. On the one hand, informality can favour a divided attention strategy (Kahneman, 1973) in terms of how managers flatten their attentional resources over various informational inputs (Rhee and Leonardi, 2018), treating rather equally both operational concerns and innovation opportunities. On the other hand, SMEs managers could also appeal to a focused attention strategy (Kahneman, 1973), where the focus is on dealing centrally with informal competition, potentially considering innovation as a tool in this process. Thus, informality may capture attentional resources depending on how salient the phenomenon is perceived by managers. Namely, as a psychological mechanism, we find support in the literature showing how managers deal with various types of challenges (Gibbert *et al.*, 2007). Small and average-intensity challenges are indeed considered stimulating. For instance, the cases in which informality shapes capability development in the formal sector (e.g. employee involvement and participation (Marchington and Suter, 2013), respectively it trigger the search for more diversification tools to increase firms' competitiveness (Hlioui *et al.*, 2022). However, challenges that are evaluated as very difficult by the decision-makers can lead to managerial paralysis, namely no further investments in innovation in our case, since they are seen as impossible barriers to overcome.

2.3 Informal competition and innovation in SMEs

The success of SMEs in increasingly competitive markets often depends on their ability to engage in innovation (Anwar, 2018; Expósito and Sanchis-Llopis, 2019). This strategic engagement is pivotal in enhancing their productivity, growth prospects, and overall survival rate (Cefis and Marsili, 2006; Lee *et al.*, 2019; Temel and Durst, 2021). Naturally, innovation is influenced by a multitude of internal and external factors. On the internal front, SMEs exhibit flexibility and adaptability but often grapple with limited resources (Negassi and Hung, 2014; Temel and Durst, 2021). Externally, both formal and informal institutional dimensions play key roles (Durst and Leyer, 2022). Institutions set the "rules of

the game," creating a conducive or an inhibiting environment for SMEs to operate and pursue competitive advantages. It is within this dynamic space, situated between codified laws and regulations (formal institutions) and what is considered legitimate but unconventional by certain social groups, rooted in norms, values, and beliefs (informal institutions), that competition in the informal sector emerges (Webb *et al.*, 2009). This divergence fosters an informal economy, where informal entrepreneurs identify and exploit opportunities (Castells and Portes, 1989). The boundary between formal and informal businesses is often blurred and influenced by various factors (Salvi *et al.*, 2023), encompassing practices such as unregistered operations, hiring without formal employment contracts, and unrecorded transactions. Informal entrepreneurs often fail to comply with tax and employment laws (Horodnic *et al.*, 2022; Darbi *et al.*, 2018; Williams, 2018), further complicating this distinction.

Existing literature on the relationship between informal sector competition and innovation in formal SMEs reveals mixed findings. Some studies, such as Mendi and Costamagna (2017), suggest that informal competition exerts a disruptive and negative influence on the innovation decisions of formal firms. This perspective stems from the lower entry costs and regulatory burden faced by informal sector firms (Abbas *et al.*, 2022; Hlioui *et al.*, 2022; Negassi and Hung, 2014). In contrast, other research has highlighted a positive impact of informal competition on innovation due to the "escape competition effect": heightened competition incentivizes firms to differentiate themselves through innovation, particularly in industries with low technological distances (McCann and Bahl, 2016; Dwibedy, 2022; Williams and Kosta, 2020; Williams and Bezeredi, 2018). More recently, Avenyo *et al.* (2021) have argued that the negative effects of informal competition can be mitigated through non-competitive interactions between formal and informal firms. In these interactions, formal firms can expand the sales of their innovative products, capitalizing on the dynamic behaviour and local market acceptance of informal firms or outsourcing certain activities. Overall, the existing body of research has predominantly focused on informal enterprises, shedding light on their often limited capacity for innovation and a greater tendency toward adaptation and imitation (Ullah *et al.*, 2019). However, the comparative levels of innovation between formal and informal enterprises remain largely uncharted territory (Fu *et al.*, 2018). While some suggest that formality is positively correlated with innovation levels (Mendi and Mudida, 2018), empirical evidence on this matter is still scarce (Williams, 2015).

In our study, we focus on two types of innovation: product innovation and process innovation. Product innovation involves introducing new or significantly improved goods, services, or technologies, enhancing technical specifications, components, integrated software, ease of use, or other functional characteristics. Process innovation occurs when a company transforms an existing business process in a way that greatly benefits those involved in or relying on the process. Given these premises, we pose the following hypotheses:

H1. Facing informal competition is positively related to a small firm's likelihood to engage in product and process innovation.

H2. Perceiving the practices of informal competitors as obstacles to the current business operations is positively related to a small firm's likelihood to engage in product and process innovation.

We complement these main hypotheses with secondary control variables that are illustrative for SME innovation in related existing studies, namely the investment in external knowledge, the degree of their market expansion (namely operating on a local, national, or international market), and affiliations to business support groups and networks (Dani and Gandhi, 2022; Didonet and Diaz-Villavicencio, 2020; Zahoor and Al-Tabbaa, 2020; Mei *et al.*, 2019).

3. Data and methodology

To test our hypotheses, the BEEPS 2018–2020 was employed. The dataset was previously used in similar studies for Eastern Europe and Central Asia (e.g. Balsmeier *et al.*, 2017; Dwibedy, 2022; Hlioui *et al.*, 2022). The samples are stratified by the firm size, business sector, and geographic region within a country, and it cover commercial, service, or industrial business establishments with at least five full-time employees in the non-agricultural economy (construction, services, transport, storage, and communications sectors, EBRD, 2020). We extracted the data for Kazakhstan reaching a sample of 1,220 small and medium-sized enterprises. In the process of filtering the information to eliminate missing values, respectively the "don't know" and "does not apply" options, we ended with a final sample of 1,094 observations.

3.1 Variables

To assess a firm's innovation propensity, we used two dependent variables:

(1) *Product innovation*: a categorical variable with the value 1 if the establishment has introduced new or improved products or services during the last three years, respectively the value 0 if this has not happened.

(2) *Process innovation:* a categorical variable with the value 1 if the establishment has introduced any new or improved process, during the last three years, respectively the value 0 if this has not happened. The type of processes explicitly mentioned in the survey were: methods of manufacturing products or offering services; logistics, delivery, or distributional methods for inputs, products, or services; or supporting activities for processes.

As independent variables, the following were used:

(1) *Presence of informal competition:* a categorical variable with the value 1 if the establishment competes against unregistered or informal establishments, respectively the value 0 if this is not the case.

(2) *Intensity of informal competition:* a 0–4 categorical variable with the value 0 if the practices of competitors in the informal sector are not seen as an obstacle to the current operations of the establishment, the value 1 if such practices are considered minor obstacles, value 2 if the practices are seen as moderate obstacles, value 3 if the practices are seen as major obstacles and value 4 if the practices are seen as very severe obstacles.

Additionally, we considered three control variables:

(1) *External knowledge:* a categorical variable with the value 1 if the establishment has spent money on the acquisition of external knowledge over the last three years, respectively the value 0 if such spending did not occur. The activities explicitly mentioned in the survey were the purchase or licensing of patents and non-patented inventions.

(2) *Degree of competition – main market:* a categorical variable with the value 0 if in the last fiscal year, the establishment mainly sold its main product on the local market (namely the same municipality where the establishment is located), the value of 1 if the main product was sold mostly across the country where the establishment is located and 2 if the main product was sold internationally.

(3) *Business membership:* a categorical variable with a value of 1 if the firm is part of a business membership organization, trade association, guild, chamber of commerce, or other business support group, respectively a value of 0 if it is not.

Table 1 displays that product innovation is more frequently implemented than process innovation, with almost 25% of companies being engaged in the first and roughly half of that number – 12.52% adopting the second. Among the common sources used for gaining knowledge, internal R&D ranks in the first position (18.74% of companies have invested in such activities), followed by external knowledge (13%) and external R&D (around 7%). The surveyed SMEs are mostly active on local (about two-thirds of them) and national markets (slightly less than one-third), with just 1.92% marking their presence on international markets. Almost 40% of all the companies state that they have faced informal competition in their business activities during the past 12 months. As such, using the more detailed question the survey reveals that approximately one-quarter of the respondents perceive informal competition as a major or a very severe obstacle for their activity.

Logistic regression analysis was mainly used to analyse the data. Supplementary, we complemented the analysis with classification tree models (CART) to obtain a clearer understanding of the potential thresholds in the variables (useful for calibrating practical interventions). All statistical analyses were implemented in the R software (with dedicated packages).

4. Results

To evaluate whether the differences in product and process innovation are significant when other control variables are introduced, a logistic regression is here employed (see Tables 2 and 3). Model 1 pulls together the expected predictors using the presence of informal competition as a determinant, while model 2 switches to the perceived intensity of informal competition. We find support for the positive influence of informal competition on product innovation when informal competition is assessed in a binary manner (hypothesis 1 confirmed) and when its intensity is considered a major obstacle to the activity of the firm (hypothesis 2 partially confirmed). We further notice these influences by confirming the positive role of traditional determinants (external knowledge, competing at a national level versus a local level, and being a member of a business network).

Variable	Code	Descriptive statistics
Product innovation	0 – No	75.32%
	1 – Yes	24.68%
Process innovation	0 – No	87.48%
	1 – Yes	12.52%
Presence of informal competition	0 – No	60.05%
	1 – Yes	39.95%
Intensity of informal competition – perceived obstacle	0 – No obstacle	42.96%
	1 – Minor	16.45%
	2 – Moderate	16.27%
	3 – Major	10.24%
	4 – Very severe	14.08%
External knowledge	0 – No	87%
	1 – Yes	13%
Degree of competition (main market)	1 – Local	65.54%
	2 – National	32.54%
	3 – International	1.92%
Business membership	0 – No	82.17%
	1 – Yes	17.83%

Source(s): Own calculation

Table 1. Variables in the analysis (n = 1,094)

Variables	Model 1 β	se(β)	Exp(β)	Model 2 β	se(β)	Exp(β)
Informal competition						
Informal competition presence (CG: No)						
Yes	0.353*	0.149	1.423			
Informal competition intensity (CG: No obstacles)						
Minor				−0.099	0.217	0.905
Moderate				0.126	0.210	1.134
Major				0.497*	0.237	1.644
Very severe				−0.228	0.243	0.795
External knowledge (CG: No)						
Yes	1.081***	0.192	2.949	1.085***	0.192	2.961
Main market (CG: local)						
National	0.408**	0.154	1.504	0.400***	0.154	1.492
International	0.860	0.476	2.363	0.840	0.467	2.316
Business membership (CG: No)						
Yes	1.021***	0.174	2.778	1.006***	0.174	2.737
Constant	−1.839***	0.125		−1.72**	0.136	
Observations			1,049			1,049
Pseudo R^2	8.87			8.82		
Log likelihood			−624.8			−623.9
χ^2			108.5			110.2
p			0.000			0.000

Source(s): Own calculation

Table 2.
Logistic regressions of the propensity to conduct product/ service innovation

Variables	Model 3 β	se(β)	Exp(β)	Model 4 β	se(β)	Exp(β)
Informal competition						
Informal competition presence (CG: No)						
Yes	0.607**	0.193	1.835			
Informal competition intensity (CG: No obstacles)						
Minor				0.079	0.293	1.082
Moderate				0.365	0.274	1.441
Major				0.755*	0.297	2.129
Very severe				0.344	0.300	1.411
External knowledge (CG: No)						
Yes	1.339***	0.217	3.815	1.327***	0.218	3.771
Main market (CG: local)						
National	0.743***	0.198	2.103	0.741***	0.198	2.098
International	0.806	0.555	2.339	0.868	0.538	2.383
Business membership (CG: No)						
Yes	0.801***	0.216	2.228	0.789***	0.215	2.202
Constant	−3.030***	0.183		−2.97***	0.200	
Observations			1,049			1,049
Pseudo R^2	11.8			11.5		
Log likelihood			−420.3			−420.9
χ^2			99.4			96.6
p			0.000			0.000

Source(s): Own calculation

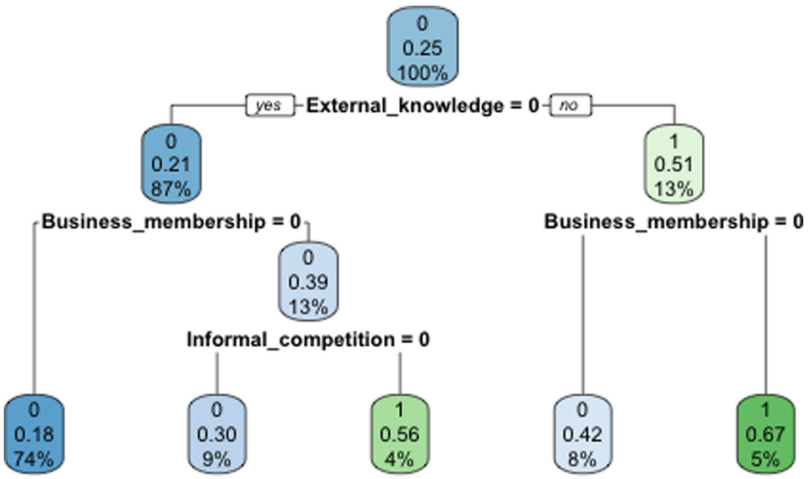
Table 3.
Logistic regressions of the propensity to conduct process innovation

The classification tree model in Figure 1 illustrates investments in external knowledge as being the dominant force explaining a company's likelihood to innovate in terms of offering new products or services. Namely, this variable generates the first split. Further, affiliation to a business network/professional organization appears as the next most important influential factor. Thus, not investing in external knowledge and not being part of a business network leads to a low likelihood of innovation, of just 18% (with 74% of the observations falling under this category). The reverse (the right branch of the tree) is that investment and affiliation lead to a 67% likelihood of innovation (with 5% of the observations falling under this category). A relevant third variable appears, namely the presence of informal competition. For those companies that are not investing in external knowledge, but are part of a business network, the acknowledged presence of informal competition triggers innovation to a likelihood of 56% (by comparison to 30%). The model has a good accuracy of 0.77 (thus it predicts 77% of the observation correctly).

Similarly, in the case of product innovation, models 3 and 4 convey the same positive influence for the presence of informal competition on process innovation, respectively perceiving it as a major obstacle also increases the propensity to conduct process innovation.

The tree associated with the likelihood of generating process innovations (Figure 2) similarly depicts the importance of external knowledge as the first variable to consider. If there is no such investment the likelihood to innovate is half smaller in this case, only 9%. At the other end, when external knowledge is present, the second relevant variable is the degree of competition. When the company deals with local and international competition, the likelihood of innovation increases to 24%; when the company activates at a national level, the tendency towards innovation is further amplified, reaching 48%. Finally, the third variable reflecting the intensity of informal competition comes into the picture. When informal competition is seen as no obstacle, minor or moderate obstacle, the propensity towards innovation slightly decreases, down to 41%; when informal competition is seen as a major or a very severe obstacle, then such threat positively affects innovation, up to 65%. The model has a very good accuracy of 0.88 (thus it predicts 88% of the observation correctly).

In both cases, the trees are pruned and thus built according to the importance of the variables, as suggested by complexity parameters (Breiman, 2017). Each node displays three



Source(s): Own calculation

Figure 1.
CART tree for the likelihood of a firm engaging in product innovation

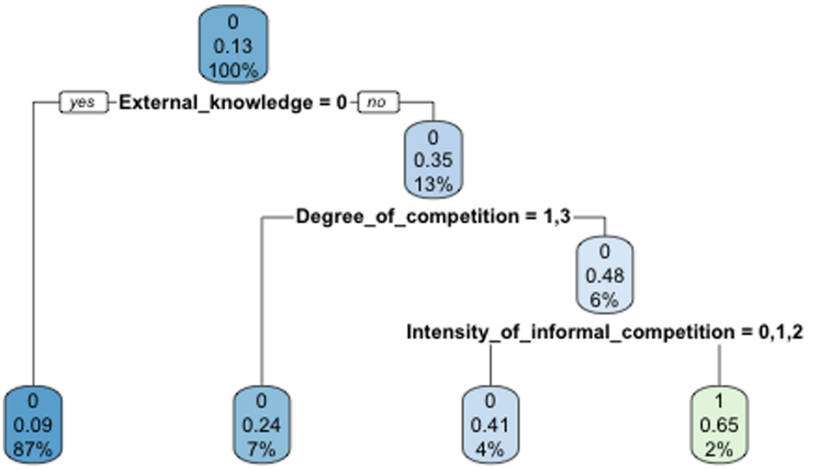


Figure 2.
CART tree for the likelihood of a firm engaging in process innovation

Source(s): Own calculation

levels of information: the predicted class (1 – the company engaged in innovation, 0 – the company did not innovate), the predicted probability of innovation, and the percentage of observations in the node.

5. Discussion

5.1 Theoretical implications

Based on the BEEPS data and by using logistic regressions and classification trees, our paper shows that the presence of informality can stimulate formal SMEs to innovate. Namely, under the attention-based view theoretical framework we illustrate that informal competition is a critical factor that shapes SMEs' organizational behaviour. Indeed, in developing economies like Kazakhstan informality deserves to be highlighted as a factor of interest for entrepreneurs when developing competitive strategies under limited attention (Ianole-Călin *et al.*, 2017; Druica *et al.*, 2010) and, implicitly, under various cognitive biases (Ianole, 2016). The fact that we did not obtain a different pattern for what drives product and process innovation is a significant result in itself because it may signal that, in this particular environment, innovation is aggregately seen as a coping strategy, without having strategic roots, and/or dedicated resource allocation (Rosenzweig and Grinstein, 2016).

The first hypothesis is completely confirmed which means that facing informal competition is positively related to a small firm's likelihood to engage in both types of innovation. Such a positive relationship has been previously encountered in the case of Chinese manufacturing firms (Pérez *et al.*, 2021), SMEs in Eastern Europe (Hlioui *et al.*, 2022), respectively for firms in Africa and the Middle East (Farooq *et al.*, 2022). Thus, we contribute to this stream of literature connecting informality and innovation by further consolidating the important interplay between the informal and formal realms.

One mechanism through which informality stimulated innovation is referred to in the work investigating the channels through which informality influences capability development processes (Marchington and Suter, 2013) and other positive initiatives devoted to increasing SMEs' competitiveness (Hlioui *et al.*, 2022). Such evidence can open new research avenues on the threshold upon which informality has a positive influence on innovation propensity.

Our second hypothesis was only partially confirmed. This means that when informal competition is seen as a major obstacle, an increase in the innovation propensity can be observed; however, if informal competition is considered as no obstacle, a minor obstacle, or a very severe obstacle, there are no significant results. The lack of significance for the "no obstacle" and "minor obstacle" cases is convergent with how determinants of innovation are examined in developed economies. Namely, informal competition is not a challenge (or at least it is not perceived as one, perception being often driven more by subjective factors than by objective realities, e.g. Vâlsan *et al.*, 2023), and the focus is on the rather traditional internal and external variables (e.g. characteristics of SMEs). Among the traditional factors of SME innovation, our paper accounts for the role of external knowledge, degree of competition and the existence of business memberships or professional networks, all of them being proven as positive drivers of product and process innovation, which is in line with previous research (Dani and Gandhi, 2022; Didonet and Diaz-Villavicencio, 2020; Zahoor and Al-Tabbaa, 2020; Mei *et al.*, 2019). Further, the situation that informal competition stops having a stimulative effect on formal SME innovation when it is perceived as a very severe obstacle, speaks about the dual nature of the informal sector and the difficulty posed by straightforward questions like "is informality good or bad" (La Porta and Shleifer, 2014). In this second situation, informal competition exhibits rather negative effects, pertaining to the category of a barrier impossible to be crossed by formal SMEs in terms of beating the unfair/illegal advantages of their competitors. Indeed, when its stimulating dimension disappears, we mostly observe a certain managerial paralysis (Gibbert *et al.*, 2007), usually characterized by no innovation.

5.2 Managerial and policy implications

The study has practical implications as well. As for decision-makers in SMEs, daily coping with informal competition may hinder the attention of these individuals from strategic approaches (under the ABV assumptions) and thus, lower the firms' performances in the long term when the business environment changes. Specifically, our work signals that while innovation as a response to informal competition is a positive strategy, decision-makers should be aware that this is a volatile advantage that can easily disappear if innovation is not embedded properly in some organizational procedures and structures, thus stressing the relevance of implementing process innovation (e.g. as opposed to ad-hoc or reactive innovation).

As for policy implications, this study suggests that if governments adopt a highly deterrent policy approach (e.g. fines and audits) aimed at reducing informality, they should expect, at least in the short run, a negative influence on SMEs' propensity to innovation, and thus a decrease of their productivity. This is usually the case when countries strive to achieve very ambitious objectives–and it also mirrors the current reality of Kazakhstan. In 2021, Kazakhstan's government approved an ambitious plan to tackle the shadow economy, namely to reduce its dimension to 20% of the GDP by 2025. This vision had the aims of "combating tax and customs evasion, developing non-cash payments, effective management of public finances, improving the business environment, as well as assessing the shadow economy based on world practice" by the digitalization of tax and customs administration, development of cashless payments, and improvement of legislation.

Taking into account previous evidence on tackling undeclared work (Horodnic and Williams, 2022; Horodnic *et al.*, 2020), our findings suggest that the positive dimension of informality should be officially acknowledged. Consequently, policymakers should strive to promote and facilitate the transition from the informal to the formal sector by seeing innovation activity not only as a crisis/emergency response to informal competition but as a strategic and systematic long-term business function.

6. Conclusions

This study evaluates the relationship between informal competition and innovation propensity in formal Kazakh SMEs. Kazakhstan is considered a promising research setting for the topic considering the country's high degree of economic informality.

The overall findings indicate that informal competition can be stimulating for innovation in formal SMEs but only when such informality pressures are perceived by the decision-makers as a major obstacle to the business operations of the firm. Thus, when informal competition is not seen as a relevant force but rather as a minor obstacle or no obstacle at all, it does not influence innovation propensity. Analogously, when informal competition is perceived as very severe, the link with innovation also disappears. Our research question was answered by examining the presence and the intensity of informal competition, and further insights were provided by taking in the role of several control variables.

As with all studies, this study is not without limitations. The perception of informal competition was acquired only through the lens of formal enterprises (as considered in the BEEPS), and it does not include the perspective of micro-entrepreneurs or sole traders.

Similarly, the official survey design can offer insights only up to tracing a relevant association. More granular data would be required to better describe how the pressures of informal competition are accounted for in business practices, respectively, to potentially test if this perception is also subject to framing and other type of cognitive biases. This could be done through experiments and qualitative methods aimed at disentangling objective and subjective drivers of perception. Analogously, the lack of differentiation between product and process innovation further deserves a separate investigation. It remains a question for future research whether this perceived homogeneity of innovation is a stable characteristic of the Kazakh economy (e.g. given its prolific natural resources sectors that could have generated certain associations related to how a business can achieve economic success) or whether if another theoretical background needs to be employed to conceptualized innovation types (and implemented in a dedicated survey). More comparative research is needed for examining how formal SMEs respond to informal competition where it is seen as a severe obstacle. Finally, the heterogeneity found in SMEs should also be addressed in future research, to better understand how firm size affects the responses to informal competition.

References

Abbas, S., Adapa, S., Sheridan, A. and Azeem, M.M. (2022), "Informal competition and firm level innovation in South Asia: the moderating role of innovation time off and R&D intensity", *Technological Forecasting and Social Change*, Vol. 181, 121751, doi: 10.1016/j.techfore.2022.121751.

Anwar, M. (2018), "Business model innovation and SMEs performance—does competitive advantage mediate?", *International Journal of Innovation Management*, Vol. 22 No. 7, 1850057, doi: 10.1142/S1363919618500573.

Ardito, L., Raby, S., Albino, V. and Bertoldi, B. (2021), "The duality of digital and environmental orientations in the context of SMEs: implications for innovation performance", *Journal of Business Research*, Vol. 123, pp. 44-56, doi: 10.1016/j.jbusres.2020.09.022.

Avenyo, E.K., Konte, M. and Mohnen, P. (2021), "Product innovation and informal market competition in Sub-Saharan Africa", *Journal of Evolutionary Economics*, Vol. 31 No. 2, pp. 605-637, doi: 10.1007/s00191-020-00688-2.

Balsmeier, B. and Czarnitzki, D. (2017), "Ownership concentration, institutional development and firm performance in Central and Eastern Europe", *Managerial and Decision Economics*, Vol. 38 No. 2, pp. 178-192, doi: 10.1002/mde.2751.

Bonnet, F., Vanek, J. and Chen, M. (2019), *Women and Men in the Informal Economy: A Statistical Brief*, Vol. 20, International Labour Office, Geneva, available at: https://www.ilo.org/wcmsp5/groups/public/—ed_protect/—protrav/—travail/documents/publication/wcms_711798.pdf (accessed 23 June 2023).

Breiman, L. (2017), *Classification and Regression Trees*, Routledge, New York, NY.

Brielmaier, C. and Friesl, M. (2023), "The attention-based view: review and conceptual extension towards situated attention", *International Journal of Management Reviews*, Vol. 25 No. 1, pp. 99-129, doi: 10.1111/ijmr.12306.

Castells, M. and Portes, A. (1989), "World underneath: the origins, dynamics, and effects of the informal economy", in Portes, A., Castells, M. and Benton, L. (Eds), *The Informal Economy: Studies in Advanced and Less Developed Countries*, Johns Hopkins University Press, Baltimore.

Cefis, E. and Marsili, O. (2006), "Survivor: the role of innovation in firms' survival", *Research Policy*, Vol. 35 No. 5, pp. 626-641, doi: 10.1016/j.respol.2006.02.006.

Dani, M.V. and Gandhi, A.V. (2022), "Understanding the drivers of innovation in an organization: a literature review", *International Journal of Innovation Science*, Vol. 14 Nos 3/4, pp. 476-505, doi: 10.1108/IJIS-10-2020-0201.

Darbi, W.P.K., Hall, C.M. and Knott, P. (2018), "The informal sector: a review and agenda for management research", *International Journal of Management Reviews*, Vol. 20 No. 2, pp. 301-324, doi: 10.1111/ijmr.12131.

De Soto, H. (1989), *Why Does the Informal Economy Matter?*, Estudios Públicos, available at: http://www.hacer.org/pdf/Desoto002.pdf

Didonet, S. and Diaz-Villavicencio, G. (2020), "Innovation management in market-oriented SMEs: learning and internal arrangements for innovation", *International Journal of Organizational Analysis*, Vol. 28 No. 5, pp. 985-1003, doi: 10.1108/IJOA-09-2019-1885.

Druica, E., Cornescu, V. and Ianole, R. (2010), "Entrepreneurship education under the auspices of behavioral economics", *Entrepreneurship: Perspectives and Strategies*, pp. 35-48.

Druică, E., Vâlsan, C., Ianole-Călin, R., Mihail-Papuc, R. and Munteanu, I. (2019), "Exploring the link between academic dishonesty and economic delinquency: a partial least squares path modeling approach", *Mathematics*, Vol. 7 No. 12, p. 1241, doi: 10.3390/math7121241.

Durst, S. and Leyer, M. (2022), "The influence of institutional conditions on firms' process innovation – evidence from firms based on a multi-country analysis", *The Bottom Line*, Vol. 35 No. 4, pp. 161-184, doi: 10.1108/BL-11-2021-0105.

Durst, S., Svensson, A. and Palacios Acuache, M.M.G. (2021), "Peruvian small and medium-sized enterprises in times of crisis—or what is happening over time?", *Sustainability*, Vol. 13 No. 24, 13560, doi: 10.3390/su132413560.

Dutton, J.E. and Dukerich, J.M. (1991), "Keeping an eye on the mirror: image and identity in organizational adaptation", *Academy of Management Journal*, Vol. 34 No. 3, pp. 517-554, doi: 10.2307/256405.

Dwibedy, P. (2022), "Informal competition and product innovation decisions of new ventures and incumbents across developing and transitioning countries", *Journal of Business Venturing Insights*, Vol. 17, e00306, doi: 10.1016/j.jbvi.2022.e00306.

EBRD (2020), "The EBRD-EIB-WB enterprise surveys 2018-2020: a report on methodology and observations", available at: https://www.beeps-ebrd.com/wp-content/uploads/2020/04/beeps_vi_es_r_oct20.pdf (accessed 23 June 2023).

EIB (2022), *Business Resilience in the Pandemic and beyond: Adaptation, Innovation, Financing and Climate Action from Eastern Europe to Central Asia*, European Investment Bank and European Bank for Reconstruction and Development, Luxembourg, doi: 10.2867/832329.

Elisa, L. (2021), *The Sudden Loss of a Social Buffer: COVID-19 and Informality in Eurasia.*, policycommons.net, available at: https://policycommons.net/artifacts/3858526/the-sudden-loss-of-a-social-buffer/4664481/

Expósito, A. and Sanchis-Llopis, J.A. (2019), "The relationship between types of innovation and SMEs' performance: a multi-dimensional empirical assessment", *Eurasian Business Review*, Vol. 9 No. 2, pp. 115-135, doi: 10.1007/s40821-018-00116-3.

Farooq, O., Aktaruzzaman, K., Satt, H. and Bendriouch, F.Z. (2022), "Innovations as a response to shadow economy: evidence from privately held firms", *Journal of Industry, Competition and Trade*, Vol. 22 Nos 3-4, pp. 1-22, doi: 10.1007/s10842-022-00388-6.

Fu, X., Mohnen, P. and Zanello, G. (2018), "Innovation and productivity in formal and informal firms in Ghana", *Technological Forecasting and Social Change*, Vol. 131, pp. 315-325, doi: 10.1016/j.techfore.2017.08.009.

Gibbert, M., Hoegl, M. and Välikangas, L. (2007), "In praise of resource constraints", *MIT Sloan Management Review*, Vol. 48 No. 3, p. 15, available at: https://www.researchgate.net/profile/Liisa-Vaelikangas/publication/264999599_In_Praise_of_Resource_Constraints/links/547413710cf2778985abbf04/In-Praise-of-Resource-Constraints.pdf (accessed 23 June 2023).

Grimpe, C. and Kaiser, U. (2010), "Balancing internal and external knowledge acquisition: the gains and pains from R&D outsourcing", *Journal of Management Studies*, Vol. 47 No. 8, pp. 1483-1509, doi: 10.1111/j.1467-6486.2010.00946.x.

Hambrick, D.C. and Mason, P.A. (1984), "Upper echelons: the organization as a reflection of its top managers", *The Academy of Management Review*, Vol. 9 No. 2, pp. 193-206, doi: 10.2307/258434.

Hlioui, Z., Gabsi, M. and Omri, A. (2022), "Informal competition effect on SMEs' innovation: do credit constraints matter? Evidence from eastern European countries", *Sustainability*, Vol. 14 No. 21, 13874, doi: 10.3390/su142113874.

Horodnic, I.A. and Williams, C.C. (2022), "Tackling undeclared work in the European Union: beyond the rational economic actor approach", *Policy Studies*, Vol. 43 No. 1, pp. 21-55, doi: 10.1080/01442872.2019.1649384.

Horodnic, I.A., Williams, C.C. and Ianole-Călin, R. (2020), "Does higher cash-in-hand income motivate young people to engage in under-declared employment?", *Eastern Journal of European Studies*, Vol. 11 No. 2, p. 48.

Horodnic, I.A., Williams, C.C., Ţugulea, O. and Stoian Bobâlcă, I.C. (2022), "Exploring the demand-side of the informal economy during the COVID-19 restrictions: lessons from Iaşi, Romania", *Sustainability*, Vol. 14 No. 12, p. 7228, doi: 10.3390/su14127228.

Ianole, R. (Ed.) (2016), *Applied Behavioral Economics Research and Trends*, IGI Global, Hershey, PA, doi: 10.4018/978-1-5225-1826-6.

Ianole-Călin, R., Vâlsan, C. and Druică, E. (2017), "The many shades of the grey economy in Romania", in Horodnic, I., Rodgers, P., Williams, C. and Momtazian, L. (Eds), *The Informal Economy: Exploring Drivers and Practices*, Routledge, New York, pp. 25-40.

ILO (2018), "Informality and non-standard forms of employment", available at: https://www.ilo.org/global/about-the-ilo/how-the-ilo-works/multilateral-system/g20/reports/WCMS_646040/lang–en/index.htm (accessed 23 June 2023).

ILO (2022), "World employment and social outlook: trends 2022", available at: https://www.ilo.org/global/research/global-reports/weso/trends2022/WCMS_834081/lang–en/index.htm (accessed 23 June 2023).

Kahneman, D. (1973), *Attention and Effort*, Prentice-Hall, Englewood Cliffs, NJ.

Koch, N. (2019), "Post-triumphalist geopolitics: liberal selves, authoritarian others", *ACME: An International Journal for Critical Geographies*, Vol. 18 No. 4, pp. 909-924, available at: https://acme-journal.org/index.php/acme/article/view/1811 (accessed 23 June 2023).

Kouakou, D.C. (2023), "Competing against 'invisibles': the effect of competition from informal firms on formal firms' R&D", *Eurasian Business Review*, Vol. 13 No. 1, pp. 87-117, doi: 10.1007/s40821-022-00217-0.

Kus, B. (2014), "The informal road to markets: neoliberal reforms, private entrepreneurship and the informal economy in Turkey", *International Journal of Social Economics*, Vol. 41 No. 4, pp. 278-293, doi: 10.1108/IJSE-11-2012-0209.

La Porta, R. and Shleifer, A. (2014), "Informality and development", *Journal of Economic Perspectives*, Vol. 28 No. 3, pp. 109-126, doi: 10.1257/je8.3.109.

Lee, R., Lee, J.H. and Garrett, T.C. (2019), "Synergy effects of innovation on firm performance", *Journal of Business Research*, Vol. 99, pp. 507-515, doi: 10.1016/j.jbusres.2017.08.032.

Marchington, M. and Suter, J. (2013), "Where informality really matters: patterns of employee involvement and participation (EIP) in a non-union firm", *Industrial Relations: A Journal of Economy and Society*, Vol. 52 No. s1, pp. 284-313, doi: 10.1111/irel.12004.

Massa, S. and Testa, S. (2008), "Innovation and SMEs: misaligned perspectives and goals among entrepreneurs, academics, and policymakers", *Technovation*, Vol. 28 No. 7, pp. 393-407, doi: 10.1016/j.technovation.2008.01.002.

McCann, B.T. and Bahl, M. (2016), "The influence of competition from informal firms on new product development", *Strategic Management Journal*, Vol. 51 No. 2, pp. 315-334, doi: 10.1002/smj.2585.

McGahan, A.M. (2012), "Challenges of the informal economy for the field of management", *Academy of Management Perspectives*, Vol. 26 No. 3, pp. 12-21, doi: 10.5465/am012.0104.

Medina, L. and Schneider, M.F. (2018), *Shadow Economies Around the World: What Did We Learn over the Last 20 Years?*, International Monetary Fund, Washington, available at: https://www.imf.org/en/Publications/WP/Issues/2018/01/25/Shadow-Economies-Around-the-World-What-Did-We-Learn-Over-the-Last-20-Years-45583 (accessed 23 June 2023).

Mei, L., Zhang, T. and Chen, J. (2019), "Exploring the effects of inter-firm linkages on SMEs' open innovation from an ecosystem perspective: an empirical study of Chinese manufacturing SMEs", *Technological Forecasting and Social Change*, Vol. 144, pp. 118-128, doi: 10.1016/j.techfore.2019.04.010.

Mendi, P. and Costamagna, R. (2017), "Managing innovation under competitive pressure from informal producers", *Technological Forecasting and Social Change*, Vol. 114, pp. 192-202, doi: 10.1016/j.techfore.2016.08.013.

Mendi, P. and Mudida, R. (2018), "The effect on innovation of beginning informal: empirical evidence from Kenya", *Technological Forecasting and Social Change*, Vol. 131, pp. 326-335, doi: 10.1016/j.techfore.2017.06.002.

Miocevic, D., Arslanagic-Kalajdzic, M. and Kadic-Maglajlic, S. (2022), "Competition from informal firms and product innovation in EU candidate countries: a bounded rationality approach", *Technovation*, Vol. 110, 102365, doi: 10.1016/j.technovation.2021.102365.

Mukherjee, D. (2016), "Informal economy in emerging economies: not a substitute but a complement", *International Journal of Business and Economic Development*, Vol. 4 No. 3, available at: https://www.ijbed.org/details&cid=121

Mussurov, A., Sholk, D. and Arabsheibani, G.R. (2019), "Informal employment in Kazakhstan: a blessing in disguise?", *Eurasian Economic Review*, Vol. 9 No. 2, pp. 267-284, doi: 10.1007/s40822-018-0117-1.

Narula, R. (2020), "Policy opportunities and challenges from the COVID-19 pandemic for economies with large informal sectors", *Journal of International Business Policy*, Vol. 3, pp. 302-310, doi: 10.1057/s42214-020-00059-5.

Negassi, S. and Hung, T.Y. (2014), "The nature of market competition and innovation: does competition improve innovation output?", *Economics of Innovation and New Technology*, Vol. 23 No. 1, pp. 63-91, doi: 10.1080/10438599.2013.811936.

Ocasio, W. (1997), "Towards an attention-based view of the firm", *Strategic Management Journal*, Vol. 18 No. S1, pp. 187-206, doi: 10.1002/(SICI)1097-0266(199707)18:1+3.0.CO;2-K.

Ocasio, W. and Joseph, J. (2005), "An attention-based theory of strategy formulation: linking micro- and macroperspectives in strategy processes", in Szulanski, G., Porac, J. and Doz, Y. (Eds), *Strategy Process (Advances in Strategic Management)*, Emerald Group Publishing, Bingley, Vol. 22, pp. 39-61, doi: 10.1016/S0742-3322(05)22002-8.

OECD (2020), *Financing SMEs and Entrepreneurs 2020: an OECD Scoreboard*, OECD Publishing, Paris, doi: 10.1787/061fe03d-en.

OECD (2023), *Insights on the Business Climate in Kazakhstan*, OECD Publishing, Paris, doi: 10.1787/bd780306-en.

Pérez, J.A.H., Kunc, M.H., Durst, S., Flores, A. and Geldes, C. (2018), "Impact of competition from unregistered firms on R&D investment by industrial sectors in emerging economies", *Technological Forecasting and Social Change*, Vol. 133, pp. 179-189, doi: 10.1016/j.techfore.2018.03.028.

Pérez, J.A.H., Yang, X., Bai, O., Flores, A. and Heredia, W.H. (2021), "How does competition by informal firms affect the innovation in formal firms?", in *Global Networks and Innovation in China*, Routledge, pp. 53-70, doi: 10.1080/00208825.2019.1608402.

Polese, A. (2021), "What is informality? (mapping) 'The art of bypassing the state' in Eurasian spaces - and beyond", *Eurasian Geography and Economics*, Vol. 64 No. 3, pp. 322-364, doi: 10.1080/15387216.2021.1992791.

Rhee, L. and Leonardi, P.M. (2018), "Which pathway to good ideas? An attention-based view of innovation in social networks", *Strategic Management Journal*, Vol. 39 No. 4, pp. 1188-1215, doi: 10.1002/smj.2755.

Rosenzweig, S. and Grinstein, A. (2016), "How resource challenges can improve firm innovation performance: identifying coping strategies", *Creativity and Innovation Management*, Vol. 25 No. 1, pp. 110-128, doi: 10.1111/caim.12122.

Salvi, E., Belz, F.M. and Bacq, S. (2023), "!Informal entrepreneurship: an integrative review and future research agenda", *Entrepreneurship Theory and Practice*, Vol. 47 No. 2, pp. 265-303, doi: 10.1177/10422587221115365.

Sanghera, B. and Satybaldieva, E. (2022), *Rentier Capitalism and Class Warfare in Kazakhstan*, openDemocracy (kar.kent.ac.uk, 2022), available at: https://kar.kent.ac.uk/92704

Temel, S. and Durst, S. (2021), "Knowledge risk prevention strategies for handling new technological innovations in small businesses", *VINE Journal of Information and Knowledge Management Systems*, Vol. 51 No. 4, pp. 655-673, doi: 10.1108/VJIKMS-10-2019-0155.

Ullah, S., Williams, C.C. and Arif, B.W. (2019), "The impacts of informality on enterprise innovation, survival and performance: some evidence from Pakistan", *Journal of Developmental Entrepreneurship, World Scientific*, Vol. 24 No. 3, p. 1950015, doi: 10.1142/S1084946719500158.

Vâlsan, C., Druică, E., Goschin, Z. and Ianole-Călin, R. (2023), "The perception of economic growth and the Romanian mioritic syndrome", *Journal of the Knowledge Economy*, pp. 1-22, doi: 10.1007/s13132-023-01294-w.

Van Elk, K., De Kok, J., Durán, J. and Lindeboom, G.J. (2014), *Enterprise Formalization: Fact or Fiction?: A Quest for Case Studies*, GIZ, available at: https://www.ilo.org/wcmsp5/groups/public/—ed_emp/—emp_ent/—ifp_seed/documents/publication/wcms_245359.pdf (accessed 23 June 2023).

Webb, J.W., Tihanyi, L., Ireland, R.D. and Sirmon, D.G. (2009), "You say illegal, I say legitimate: entrepreneurship in the informal economy", *Academy of Management Review*, Vol. 34 No. 3, pp. 492-510, doi: 10.5465/amr.2009.40632826.

Williams, C.C. (2015), "Commentary: what is known and not known about innovation in the informal economy", New Economic Insights and Policies, in Kraemer-Mbula, E. and Wunsch-Vincent, S. (Eds), *The Informal Economy in Developing Nations: Hidden Engine of Innovation?*, Cambridge University Press, Cambridge, pp. 141-152.

Williams, C.C. and Bezeredi, S. (2018), "Explaining and tackling the informal economy: a dual informal labour market approach", *Employee Relations*, Vol. 40 No. 5, pp. 889-902, doi: 10.1108/ER-04-2017-0085.

Williams, C.C. and Kosta, B. (2020), "Evaluating the impact of informal sector competitors on the performance of formal enterprises: evidence from Bosnia and Herzegovina", *Journal of Developmental Entrepreneurship*, Vol. 25 No. 2, 2050014, doi: 10.1142/S1084946720500144.

World Economics (2023), *Quarterly Informal Economy Survey (QIES) by World Economics*, London, available at: https://www.worldeconomics.com/Informal-Economy/Kazakhstan.aspx (accessed 23 June 2023).

Zahoor, N. and Al-Tabbaa, O. (2020), "Inter-organizational collaboration and SMEs' innovation: a systematic review and future research directions", *Scandinavian Journal of Management*, Vol. 36 No. 2, 101109, doi: 10.1016/j.scaman.2020.101109.

Further reading

Absadykov, A. (2020), "Does good governance matter? Kazakhstan's economic growth and worldwide governance indicators", *Otoritas: Jurnal Ilmu Pemerintahan*, Vol. 10 No. 1, pp. 1-13, doi: 10.26618/ojip.v10i1.2776.

Al-Mataani, R., Wainwright, T. and Demirel, P. (2017), "Hidden entrepreneurs: informal practices within the formal economy", *European Management Review*, Vol. 14 No. 4, pp. 361-376, doi: 10.1111/emre.12115.

Canuto, O. (2022), *War in Ukraine and Risks of Stagflation*, Policy Center for the New South, available at: https://www.policycenter.ma/publications/war-ukraine-and-risks-stagflation (accessed 23 June 2023).

De Jong, J.P. and Vermeulen, P.A. (2006), "Determinants of product innovation in small firms: a comparison across industries", *International Small Business Journal*, Vol. 24 No. 6, pp. 587-609, doi: 10.1177/0266242606069268.

Horak, S. (2022), *Informal Networks in International Business.*, Emerald Publishing, Bingley, doi: 10.1108/978-1-83982-878-220221027.

Jütting, J. and de Laiglesia, J. (2009), *Is Informal Normal?: towards More and Better Jobs in Developing Countries*, Development Centre Studies, OECD Publishing, Paris, doi: 10.1787/9789264059245-en.

KPMG (2019), *Private Equity Market in Kazakhstan.*, KPMG in Kazakhstan and Central Asia, available at: https://assets.kpmg.com/content/dam/kpmg/kz/pdf/2019/09/KPMG-Private-Equity-Market-in-Kazakhstan-ENG-2019.pdf (accessed 23 June 2023).

Lasagni, A. (2012), "How can external relationships enhance innovation in SMEs? New evidence for Europe", *Journal of Small Business Management*, Vol. 50 No. 2, pp. 310-339, doi: 10.1111/j.1540-627X.2012.00355.x.

Sharipova, D. (2015), "Who gets what, when and how? Housing and informal institutions in the Soviet Union and post-Soviet Kazakhstan", *Central Asian Affairs*, Vol. 2 No. 2, pp. 140-167, doi: 10.1163/22142290-00202002.

Utterback, J.M. and Abernathy, W.J. (1975), "A dynamic model of process and product innovation", *Omega*, Vol. 3 No. 6, pp. 639-656, doi: 10.1016/0305-0483(75)90068-7.

Williams, C.C. (2022), "Transitioning from the informal to formal economy", available at: https://ssrn.com/abstract=4120929

Yelshibayev, R.K. (2021), *Current State and Directions of Small and Medium-Sized Businesses Development in the Republic of Kazakhstan*, Bulletin of 'Turan' University, No. 1, pp. 84-90, (In Russ.), doi: 10.46914/1562-2959-2021-1-1-84-90.

Corresponding author
Rodica Ianole-Calin can be contacted at: rodica.ianole@faa.unibuc.ro