

Perceived Corruption, Entrepreneurial Exposure and Entrepreneurial Career Intention: Evidence from Five Emerging Countries

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Abstract

In an attempt to extend the remit of the Theory of Planned Behaviour, this study investigates the moderating influence of corruption on the association between entrepreneurial exposure and individuals' entrepreneurial career intention. Also, to account for the influence of distinct sociocultural backgrounds, data were analysed from a sample of 1,065 students residing in five emerging countries namely Algeria, Egypt, Kazakhstan, Kyrgyzstan and Ukraine. Interpretation of the path coefficients following structural equation modelling suggested that entrepreneurial exposure enhanced entrepreneurial career intention (conceptualised as entrepreneurial intention) through the mediating role of cognitive factors. More importantly, while perceived corruption played an important role in the entrepreneurial exposure – planned behaviour nexus, some differences were observed across the five contexts examined. Hence,

the nuanced role of sociocultural systems is better understood, and this prompts important implications for theory and practice.

Keywords: *Perceived Corruption; Entrepreneurial Exposure; Entrepreneurial Intention; Theory of Planned Behaviour; Emerging Countries*

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1. Introduction

The incidence of corruption is age-old. It persists in guises of bribery, extortion, fraud, embezzlement of public funds and the misappropriation of public assets (Gray & Kaufmann, 1998), and its corrosive effect in society is largely undisputed. Across disciplines, scholars have attested to corruption's negative but significant role in outcomes such as foreign direct investment (Voyer & Beamish, 2004), migration (Dimant *et al.*, 2013), democratic legitimacy (Linde & Erlingsson, 2012), environmental performance (Lv & Gao, 2021), and indeed entrepreneurship (Avnimelech *et al.*, 2014). In these domains and beyond, there is wholesale consensus that corruption is a key deterrent to economic growth and development (Jain, 2001; Dimant & Tosato, 2018), and it is especially endemic in emerging countries (Olken & Pande, 2012). Having said that, a contingent of economists reason that in the presence of pervasive and cumbersome regulations, corrupt practices such as smuggling and participation in informal or 'black' markets may paradoxically improve welfare, enhance efficiency and stimulate growth (Bardhan, 1997). Nevertheless, Gray & Kaufmann (1998) argue that the ill effects of corruption far exceed the short-term benefits. In the long run, corruption forestalls foreign direct investment, misallocates talent, distorts sectoral priorities, undercuts public revenue, raises taxes for fewer taxpayers, and undermines the rule of law (Gray & Kaufmann, 1998). In like manner, at the meso-level, corruption takes resources away from sectors with a greater potential for boosting economic growth (Boudreaux *et al.*, 2018). At the micro level, it erodes the effectiveness of firms' internal management (Athanasouli & Goujard, 2015).

Routinely, parallels have been drawn between corruption and a country's inherent ease of doing business (Budak & Rajh, 2014; Nageri & Gunu, 2020). Public institutions have long been regarded as important determinants of entrepreneurship with studies proving that burdensome entry regulations deter potential entrepreneurs from entrepreneurial activity (Djankov *et al.* 2002). Moreover, individuals' amiable interaction with public institutions or their agents is essential for successful business and property registration, safe and secure movement of people and goods, the obtainment of licenses and permits, as well as the enforcement of contracts. Consequently, the quality of these interactions regulates individuals' perception of prevailing levels of corruption. In turn, in the general population, this may impact positively or negatively on the expression of self-determination through entrepreneurship. Although the association between corruption and entrepreneurship is of interest in most national contexts, it is more pertinent to understand this relationship in emerging countries where entrepreneurship is considered to be a critical tool for poverty reduction (Si *et al.*, 2020) and economic growth (Zaki & Rashid, 2016). Therefore, the impact of corruption on entrepreneurial development in developing countries is a matter of interest among scholars (Avnimelech *et al.*, 2014; Audretsch *et al.*, 2022).

Notwithstanding this interest, the corpus examining the link between corruption and entrepreneurship remains nascent and inconclusive. This has elicited calls for scholars to expand their focus on the corruption and entrepreneurship nexus in terms of the overlooked antecedents and outcomes stemming from this relationship (e.g., Castro *et al.*, 2020; Cavotta & Phillips, 2022). Nevertheless, Wittberg *et al.* (2023) caution that the influence of corruption on entrepreneurship is methodologically and contextually complex. In this regard, prior studies have reported both positive and negative outcomes concerning corruption and entrepreneurship (Goel & Nelson, 2023). Thus, investigations taking a nuanced and context-based approach seem timely. Moreover, Ajide (2022) has cited a lack of evidence on the moderating effect of

institutions in the entrepreneurship literature. Geographically, Bruton *et al.* (2021: 12) contends that “the ability to understand the interplay of corruption in emerging economies for entrepreneurs in the informal and formal sectors merits greater attention”.

Furthermore, intervening factors like individuals’ entrepreneurial exposure and cognitive aspects also warrant attention as they surround the corruption – entrepreneurship relationship. To evoke the Theory of Planned Behaviour (TPB), it is understood that entrepreneurship is impelled by background factors, which in turn shape individuals’ attitude, subjective norms and perceived behavioural control. In turn, these factors trigger entrepreneurial intention. Although there is no shortage of evidence on the impact of personality factors on entrepreneurship (Haddoud *et al.*, 2022; Laouiti *et al.*, 2022), the role of background factors is comparatively under-researched. For this reason, Ajzen (2011) urged scholars to capture background factors as determinants of intention formation and eventual behaviour. This is because “identifying relevant background factors deepens our understanding of a behaviour's determinants” (Ajzen & Fishbein, 2005: 197). Context-wise, Onjewu *et al.* (2022) attested to a lack of studies tackling background factors and entrepreneurship in developing contexts. Furthermore, in Sok *et al.*’s (2021) recent review, background factors were presumed to indirectly stimulate examined behaviours through TPB’s three constructs. Yet, contemporary studies are still prone to situating background factors as direct predictors of intention.

Considered as a key background factor, the literature is inundated with evidence that distinct forms of entrepreneurial exposure enable the development of an entrepreneurial attitude (Krueger, 1993; Türk, 2020; Sherkat & Chenari, 2022). For example, the prospect of pursuing entrepreneurship is greater if you have previously been exposed to the operations of a family firm (Kellermanns *et al.*, 2008; Altinay *et al.*, 2012; Wang *et al.*, 2018). Among others, forms of entrepreneurial exposure include parental, family member and work exposure (Carr & Sequeira, 2007; Onjewu *et al.*, 2022), entrepreneurial role models (Austin & Auta, 2016),

entrepreneurial networks (Patton & Marlow, 2011), entrepreneurship education (Onjewu *et al.*, 2021), and entrepreneurship clubs and societies (Pittaway *et al.*, 2011). Conversely, as an antecedent, entrepreneurial exposure has produced a catalogue of conflicting evidence (Zapkau *et al.*, 2017). For instance, while Matthews *et al.* (1995), Crant (1996) and Lindquist *et al.* (2015) were of the view that exposure to entrepreneurial parents nurtured entrepreneurialism among offspring, Tkachev & Kolvereid (1999), Kolvereid & Isaksen (2006) and Gird & Bagraim (2008) reported the opposite effect. More recently, Onjewu *et al.* (2022) found that the greater the proximity of individuals to the entrepreneurial action, the lower their entrepreneurial behaviour. Possibly, such conflicting evidence could be explained by the unique contexts of entrepreneurial exposure. Here, Zapkau *et al.* (2017) posit that such contingency factors related to the environment will likely moderate the relationship between prior entrepreneurial exposure and outcome variables in the entrepreneurial process.

Against this backdrop, it is deducible that extant research has fallen short of interrogating the likely interaction between prior entrepreneurial exposure and perceived corruption vis-à-vis entrepreneurial career intention. In the undertaking of entrepreneurial activity, perceived corruption reflects individuals' impression of deviant processes, bribery, conflict of interest, abuse of office and inappropriate use of information (Andersson, 2017). Furthermore, entrepreneurial exposure describes the presence of practicing entrepreneurs in individuals' immediate network, along with direct work involvement with those entrepreneurs (Onjewu *et al.*, 2022). In their recent review, Abbasianchavari & Moritz (2020) suggested that the influence of prior exposure through role models on entrepreneurial behaviour should be examined across countries with different sociocultural systems to better understand how prior exposure affects individuals' entrepreneurial aspirations. Therefore, a telling gap in the empirical corpus on how perceived corruption interacts with entrepreneurial exposure and

behaviour is stressed. Prior studies have focused on the direct influence of corruption but, as highlighted above, the influence of corruption may be more complex. Thus, the key premise of this inquiry is that perceived corruption is likely to affect the influence of entrepreneurial exposure on entrepreneurship. Investigating both attributes in isolation may only generate half-baked insights and curtail full understanding of their importance to entrepreneurial activity. For redress, it is opportune to shed new light on how both dimensions interact to remedy the current oversimplification and possibly clarify culture-centric differences. Assessing and reporting fresh insights in this regard will add new evidence to inform the cultivation of entrepreneurial career intention that bodes well for decreasing economic inequality (Bruton *et al.*, 2021).

Overall, the contributions of the study are twofold. First, it offers scarce evidence of the moderating rather than the direct role of corruption. In one stroke, this addresses Cavotta & Phillips (2022); Bruton *et al.* (2021) and Castro *et al.*'s. (2020) calls for more research on the role of corruption in entrepreneurship. Also, by espousing TPB, the study unveils the external institutional contingencies shaping the overlooked background factors that explain entrepreneurial interest. Second, assessing perceived corruption and entrepreneurial exposure across five emerging and socially diverse countries [namely: Algeria, Egypt, Kazakhstan, Kyrgyzstan and Ukraine] heeds the solicitation of several scholars. For one, Abbasianchavari & Moritz (2020) flagged the need to capture sociocultural variations across different contexts shaping the influence of entrepreneurial exposure. Likewise, Zapkau *et al.* (2017) summoned new studies to consider pertinent contingency factors shaping the exposure - entrepreneurship nexus including institutional, political and cultural attributes in developing nations. In this regard, they [Zapkau *et al.* (2017)] noted a significant imbalance in terms of geographical focus to the disadvantage of developing countries, thus hindering knowledge on how prior entrepreneurial exposure shapes entrepreneurship activity in diverse societies. Precisely, 'research using multi-country samples to analyse country differences within the same research

setting is remarkably scarce' stated Zapkau *et al.* (2017: 76). Accordingly, they urged scholars to undertake more multi-country studies.

To proceed, the rest of the paper is arranged as follows: section 2 describes the context of the surveyed countries, followed by a theoretical background and hypothesis development in section 3. In section 4, the data, measures and sample characteristics of the observations are defined. After this, section 5 explains the measurement model's quality, followed by a depiction of associations in structural path model as well as findings. Section 6 embarks on a discussion leading to conclusions, theoretical and practical reflections in section 7 and ultimately limitations in section 8.

2. Research Context

Beginning with Algeria, its economy is highly dependent on fossil fuels which are mainly gas, coal and oil (Nwani *et al.*, 2021). As a result, the energy sector continues to account for more than one-third of Algeria's GDP, two-thirds of government revenue and nearly 98% of exports (Achev, 2013). Recently, Algeria has been encouraging entrepreneurship by introducing reforms to stimulate new venture creation (Chohra, 2019). Nevertheless, the rate of entrepreneurship is still inhibited by corruption and bureaucracy among other challenges (Aknine *et al.*, 2014). In fact, corruption is deeply rooted in public institutions (Chama, 2019), and the Corruption Perception Index (CPI)¹ ranks Algeria as 116 out of 180 countries (Transparency International, 2022). Foreign firms operating in the country also face considerable challenges due to widespread corruption practices (Huber *et al.*, 2014). Not surprisingly, owing to corruption and its related disincentives, Algeria was ranked 157 in the World Bank's (2022) global ease of doing business survey. Culturally, Algeria is a high power

¹ The Corruption Perception Index (CPI) published by [Transparency International](#) ranks 180 countries and territories around the world by their [perceived levels of public sector corruption](#). The results are presented on a scale of 0 (denoting highly corrupt) to 100 (denoting very clean).

distance and high uncertainty avoidance society. However, it scores low in individualism, masculinity, long-term orientation and indulgence (Hofstede Insights, 2023).

Moving to the Egyptian context, the country is one of the most populous and economically diverse states in the Middle East (Elseoud *et al.*, 2019). However, corruption is also a grave concern hampering entrepreneurship (Dutta & Sobel, 2016). In 2022, Egypt was placed 130 out of 180 nations in terms of corruption perception (Transparency International, 2022). Insights from this ranking provoked the establishment of reforms to ease the process of starting a business, obtaining electricity, protecting minority investors and simplifying tax payments. However, the efficacy of these reforms is doubtful. In spite of the measures taken, Egypt was ranked as the 114th country in the World Bank's (2022) ease of doing business review. In terms of its cultural profile, Egypt is a high power distance society like Algeria. Nevertheless, Egyptians are moderately masculinist as well as prone to avoiding uncertainty. They also score low in individualism and long-term orientation (Hofstede Insights, 2023). There is a general tendency for restraint over indulgence among Egyptians (Hussein, 2018).

Turning to Kazakhstan, this nation is the 9th largest country in the world [by square kilometres] with an estimated population of 19 million and a per capita GDP of \$10,000. It became independent in 1991, ending a long period of Russian and later the Soviet Union's rule. The Kazakh economy is highly dependent on natural resources such as oil, gas and metals that make up 30% of its GDP and around 60% of exports (OECD, 2017). In 2022, Kazakhstan was 101st out of 180 countries in the CPI ranking (Transparency International, 2022). Importantly, the country has introduced reforms to enhance its ease of starting a business, obtaining construction permits and accessing credit. These measures propelled Kazakhstan to 25th out of 190 countries in the World Banks' (2022)² ease of doing business standing. In terms of its culture,

² The Doing Business project provided objective measures of business regulations and their enforcement by looking at domestic small and medium-size companies and measured the rules affecting them throughout their

Kazakhstan is a high power distance, high uncertainty avoidance and largely long-term oriented country. Yet it is moderate in masculinity and scores low in individualism and indulgence (Hofstede Insights, 2023).

Next, similar to Kazakhstan, Kyrgyzstan also gained independence from the Soviet Union in 1991. It is considered a lower-middle income country by the World Bank with its economy predominantly dependent on foreign remittances and gold production. Socio-political stability in Kyrgyzstan has been noticeably threatened by accusations of corruption culminating in public protests and the ousting of incumbent presidents in 2005, 2010 and 2020. With regards to the corruption perception index, Kyrgyzstan ranks as the 140th country out of 180 (Transparency International, 2022). In this regard, reforms that simplify access to electricity and credit, as well as efficient tax payments have been introduced. Subsequently, Kyrgyzstan has been placed at 80 among 190 states in the World Bank's (2022) ease of doing business report. To describe its culture, Kyrgyzstan is perceived to be a low power distance society (Najimudinova, 2013; Özbek *et al.*, 2016) but it scores high in uncertainty avoidance (Termirbekova *et al.* (2014). Kyrgyzstanis are moderately long-term oriented (Najimudinova, 2013) but highly masculinist (Ardichvili & Kuchinke, 2002). There is a lack of evidence on the country's disposition to indulgence.

Lastly, Ukraine is the second largest country in Europe by land mass and seventh by population. It also became independent in 1991 and set in motion a number of political and economic reforms in the ensuing three decades (Dabrowski *et al.*, 2020). The reforms were enacted amid periods of declining GDP, high inflation and significant unemployment. Now engaged in a war with Russia, the GDP foregone due to this event is estimated to be in the region of 15% of

lifecycles. The first Doing Business report, started in 2002 and published in 2003, covered five indicator sets and 133 economies. The final study, benchmarked to May 1, 2019 and published in 2020, covered 11 indicator sets and 190 economies.

average production in the 2013-2017 interval (Bluszcz & Valente, 2022). Since the change in government in 2014, anti-corruption has been a focal political agenda. Yet, the upshot has been suboptimal with Ukraine still being ranked 116 out of 180 in the 2022 corruption perception index (Transparency International, 2022). Also, it is 64th in the World Bank's (2022) ease of doing business directory. Culturally, Ukrainians are disposed to high-power distance, high uncertainty avoidance and a significantly long-term outlook. Yet, altogether, they also score low in individualism, masculinity and indulgence (Hofstede Insights, 2023).

3. Theoretical Framework and Hypothesis Development

To reiterate, this study predicates that perceived corruption is likely to moderate the relationship between entrepreneurial exposure and entrepreneurial career intention [dubbed entrepreneurial intention hereafter], through the cognitive factors of entrepreneurial self-efficacy, subjective norms and entrepreneurial attitudes.

3.1. Theoretical Framework: Theory of Planned Behaviour

Prior exposure to entrepreneurship is routinely cited as a driver of entrepreneurial behaviour (Cieřlik & Van Stel, 2017; Zapkau *et al.*, 2017). It underscores an individual's encounter with venture creation or development afforded by others including parents, relatives and friends. Exposure may also occur from previous work experience in an entrepreneurial setting or erstwhile venture creation (Krueger, 1993). This determination is key as it is anticipated that past experiences will influence future behaviours (Carr & Sequiera, 2007). As suggested by the theory of social learning, being exposed to entrepreneurship through family and friends shapes a person's cognition about their own interests and capabilities in relation to venture creation (Zapkau *et al.*, 2017). However, this outcome is likely to manifest indirectly by first shaping the cognitive traits of individuals as per Ajzen's (1991) TPB premise (Zapkau *et al.*, 2017). In fact, Ajzen (2011) intimated that 'background factors' (such as entrepreneurial

exposure) are indirect predictors of intention through attitudes, perceived behavioural control and subjective norms.

In entrepreneurship research, TPB has been widely harnessed to explain individuals' intention to start their own business, which would in turn translate into behaviour (Chang *et al.*, 2022; Munir *et al.*, 2019). Thus, TPB assumes that entrepreneurial behavior (in our case) is preceded by intentions that transpire from attitudes towards that behavior, perceived behavioral control and subjective norms. To explain, entrepreneurial attitudes reflect individuals' subjective appraisal of an entrepreneurship career in relation to its attractiveness (Nowiński & Haddoud, 2019). Perceived behavioral control overlaps conceptually with self-efficacy as the latter is the primary condition of self-assurance. Accordingly, entrepreneurial self-efficacy captures people's perceptions of their own ability to start a business (Neneh, 2022). Furthermore, subjective norms point to the social influence that individuals are exposed to relative to a given intention or behaviour (Ajzen, 1991). Overall, Fayolle & Liñán (2014) affirm that TPB is a foremost lens for explaining entrepreneurial intention. Correspondingly, Palmer *et al.* (2021) assert that TPB explains approximately 30% of variance in behaviour and is a solid standpoint for predicting entrepreneurial activity. For these reasons, TPB is preferred as the theoretical framework for this study. TPB has been tested in emerging markets in prior works. For instance, Rehman *et al.* (2023) adopted TPB to explain entrepreneurial intentions of Pakistani students, yet they also acknowledged the need to include more factors. The need for extending TPB was also echoed by Ghatak *et al.* (2023) when studying a sample of Indian students. Wach *et al.* (2023) tested the TPB factors in the Namibian context and claimed that the theory is particularly well-suited to predict behaviours in which individuals have incomplete volitional control.

3.2. *Entrepreneurial Exposure and Entrepreneurial Intention*

The influence of prior entrepreneurial exposure on entrepreneurial intention through enhancing entrepreneurial attitudes, perceived behavioural control and subjective norms has been confirmed in several previous works. For instance, in the US, Carr & Sequeira (2007) found that attitudes towards business ownership, perceived family support, and entrepreneurial self-efficacy mediate the effect between prior family business exposure and entrepreneurial intent. Similarly, using a German sample, Zapkau *et al.* (2017) concluded that all three TPB factors mediate the influence of prior entrepreneurial exposure on entrepreneurial intention. In Nigeria, Onjewu *et al.* (2022) argued that entrepreneurial family exposure affects entrepreneurial implementation intention through attitudes, self-efficacy and subjective norms, although the influence of such exposure is nuanced. Hence, in this study, we argue that the impact of entrepreneurial exposure on entrepreneurial intention will transpire through each of the cognitive factors of TPB. Nevertheless, while TPB is the core theoretical underpinning of this study, social learning theory has also been incorporated with entrepreneurial exposure as the key antecedent. As advanced by Bandura (1977), social learning theory posits that in addition to direct experience, learning can take place through observation and interaction with others. Therefore, the ensuing conceptualisation supposes that three TPB dimensions of behavioral intentions will be instigated by entrepreneurial exposure.

Firstly, people's attitudes toward different career path options are shaped by their exposure to entrepreneurship. For instance, when exposure takes place through parents, they would convey the desirability to embrace an entrepreneurial career to their offspring (Zapkau *et al.*, 2015). Experiences shared by parents, friends, teachers and other strong ties about their own entrepreneurial careers are known to affect individuals' beliefs about such endeavour (Carr & Sequeira, 2007). In due course, attitude is deemed to be the first determinant of behavioural intention (Ajzen, 1991). Empirically, there is wide consensus that having a favourable attitude

towards entrepreneurship is positively associated with higher entrepreneurial intention (Aragon-Sanchez *et al.*, 2017; Al-Jubari, 2019; Munir *et al.*, 2019; Shi *et al.*, 2020; Garcez *et al.*, 2023; Rehman *et al.*, 2023). To examine this broad consensus, the first hypothesis is stated as:

H1a. *Entrepreneurial exposure holds a positive influence on entrepreneurial intention by enhancing individuals' attitudes toward entrepreneurship*

Secondly, entrepreneurial exposure can increase entrepreneurial skills and their perceptions (entrepreneurial self-efficacy) through vicarious learning (Bandura, 1977). Indeed, extant works have confirmed the relationship between entrepreneurial exposure and entrepreneurial self-efficacy (Carr & Sequeira, 2007; Zapkau *et al.*, 2015; Onjewu *et al.* 2022). In theory, when exposed to entrepreneurship through parents, family and friends, people will have access to financial and non-financial resources in the form of capital, loans, collateral, social capital (key contacts) and market information. Such assets are likely to reinforce people's perceptions of the feasibility of creating a new business and hence boost their entrepreneurial self-efficacy (Laspita *et al.*, 2012). Likewise, people may learn entrepreneurial skills from observation which would boost their confidence to engage in the venture creation process (Zapkau *et al.*, 2015). In turn, entrepreneurial self-efficacy is considered to be a significant driver of entrepreneurial intention and there is extensive empirical evidence of a positive influence in this regard (Aragon-Sanchez *et al.*, 2017; Munir *et al.*, 2019; Onjewu *et al.*, 2021; Garcez *et al.*, 2023; Rehman *et al.*, 2023). Likewise, Bayon *et al.* (2015) state that entrepreneurial self-efficacy incentivises people to take concrete actions towards venture creation. To sum up, Wang *et al.* (2018) argue that the influence of vicarious learning on entrepreneurial intention is contingent upon the development of self-efficacy. Along these lines, a second hypothesis is proposed:

H1b. *Entrepreneurial exposure holds a positive influence on entrepreneurial intention by enhancing individuals' self-efficacy*

Thirdly, in entrepreneurship, the approval or disapproval of close relations to start a business plays an important role (Munir *et al.*, 2019). Thus, the influence of entrepreneurial exposure on subjective norms can be explained through social learning that is persuasion-based. From this perspective, having parents or other family members who are entrepreneurs may afford access to an entrepreneurial network that would increase the social support perceived (Kim *et al.*, 2006). In this manner, prior evidence has confirmed the existence of a positive relationship between entrepreneurial exposure and subjective norms (Zapkau *et al.*, 2015; Carr & Sequeira, 20017; Onjewu *et al.*, 2022). Turning to the influence of subjective norms on entrepreneurial intent, TPB postulates that the influence of significant others is likely to play an important role in the new venture creation decision-making process (Ajzen, 2001). However, it should be acknowledged that empirical support for this nexus has been inconsistent (Munir *et al.*, 2019). Nevertheless, based on theoretical underpinning and confirmation of this link in numerous studies (Al-Jubari, 2019; Zaremohzzabieh *et al.*, 2019; Shi *et al.*, 2020), the present study anticipates a positive influence. To this end, a third hypothesis is proposed:

H1c. *Entrepreneurial exposure holds a positive influence on entrepreneurial intention by enhancing individuals' subjective norms*

3.3. The Moderating Role of Corruption

Anticipating a positive relationship between entrepreneurial exposure and cognitive factors assumes that exposure is a beneficial event. Yet, it has been known that not all exposures boost entrepreneurial attitudes, self-efficacy and subjective norms, especially when individuals are exposed to negative experiences such as long working hours, economic uncertainty and bankruptcy. Such exception has been proven in Zapkau *et al.*'s (2015) study which reported that only positive exposure to entrepreneurship through parents would influence attitudes

towards new venture creation. Furthermore, Newbery *et al.* (2018) argued that a direct entrepreneurial experience would expose people to complex entrepreneurial realities, which may discourage them from taking up new venture creation. Similarly, Wang *et al.* (2018) reasoned that offspring involvement in the family business would expose them to the pitfalls of an entrepreneurial career.

Considering the above arguments, it can be anticipated that the potential to develop negative experiences towards entrepreneurship will be greater in environments that are perceived to be corrupt. As Aidis *et al.* (2012) affirm, corruption can yield a negative impact on entrepreneurship in three ways: (1) by deterring individuals unwilling to engage in corruption, (2) by fostering destructive entrepreneurship and (3) by hampering firm growth due to fears of expropriation. Hence, corruption curtails entrepreneurial activity by increasing investment uncertainty, transaction costs and market inefficiencies (Castelló-Sirvent & Pinazo-Dallenbach, 2021). It hinders the ambition of aspiring entrepreneurs (Estrin *et al.* 2013), deters entrepreneurs from undertaking activities in the formal sector (Berdiev & Saunoris, 2017), and misallocates resources needed for capital projects and away from education or healthcare (Boudreaux *et al.* 2018). For these reasons, entrepreneurs prefer to operate in corruption free environments (Uribe-Toril *et al.*, 2019). Not surprisingly, Griffiths *et al.* (2009) found that governmental corruption index and entrepreneurial intention are negatively related. Research has also shown that institutional level factors, including the extent of corruption (Aidis *et al.*, 2012), significantly hinders entry into entrepreneurship and this is particularly salient in less affluent countries. Campos *et al.* (2019) offer similar evidence for Brazil, signalling that corruption is a strong barrier to the entry of new firms.

Despite the aforesaid, the negative impact of corruption is not entirely unequivocal as some argue that it [corruption] is beneficial for ‘greasing the wheels’ of business operations in certain circumstances. For example, Dreher & Gassebner (2013) find that while regulations may deter

firms from market entry, corruption in highly regulated contexts facilitates entrance. Equally, Méon & Weill (2010) find that in countries where institutions are extremely inefficient, corruption may increase the aggregate efficiency of production. They note, however, that this effect may not be visible if other measures of efficiency are applied and may also lead to a vicious circle of decreasing the quality of institutions. As Acs *et al* (2018) demonstrate, it is the quality of institutions that fosters entrepreneurship and thus corruption tends to undermine this quality. Correspondingly, Anokhin & Schulze (2009) observe that low control of corruption undermines trust in law enforcement. This increases monitoring and transaction costs and eventually decreases productivity, investment in innovation and entrepreneurship. Therefore, although the role of corruption may not always be antagonistic, the dominant view is that corruption undermines entry into more productive and purposeful entrepreneurship.

Furthermore, when it relates to entrepreneurial intention and its link with perceived corruption, research remains scant. Yet, a small corpus seems to suggest the existence of this relationship. For instance, upon analysing the impact of a number of contextual factors and macro indices on entrepreneurial intention in 10 countries, Griffith *et al.* (2009) found that government corruption, as determined by the CPI, had an adverse effect on entrepreneurial intention. Examining students in Italy, Allini *et al.* (2017) found that corruption perception decreased both student entrepreneurial intention and actual behavior while, on the other hand, Ceresia & Mendola (2019) found a somewhat opposite outcome. What is evident from these studies is that different regions were observed and varied measures of corruption were used. In particular, Ceresia & Mendola (2019) extended the measure of corruption to include perceptions of cooperation with organised crime and the conduct of illegal activities. This unique approach to capturing corruption might explain the positive relationship between the inherent perception and entrepreneurial intention.

Focusing on the context of emerging markets, the link between corruption perception and entrepreneurial intention has been found to be negative. Castelló-Sirvent & Pinazo-Dallenbach's (2021) study of corruption perception and entrepreneurial intention in a Mexican university reported that corruption does not lead to entrepreneurial intention. However, they stated that certain covariates, such as high income, family entrepreneurial background or corruption normalisation may attenuate the influence of corruption. In Cameroon, Neneh's (2014) study on entrepreneurial intention and their determinants also identified a high influence of bribery. Accordingly, it was ranked as one of the top three deterrents of entrepreneurial intention formation along with a lack of funding and limited business skills. In a sample of African countries observed in the Global Entrepreneurship Monitor [GEM] survey, Dvouletý & Orel (2019) noted that the perception of corruption was among other variables curbing entrepreneurial intention on the continent. The lower the corruption perception the higher the rate of new business registrations per capita they [Dvouletý & Orel, 2019] concluded. In another study, Thanh *et al.* (2020) revealed that although the significance of the relationship between normative barriers (including corruption) and entrepreneurial intention was marginally significant among Vietnamese students, corruption was the most salient factor. Nevertheless, Traikova *et al.* (2017) offer a conflicting view with evidence gathered from rural entrepreneurs in the transition economy of Bulgaria. Findings from this setting suggested that individuals who perceived corruption to be effective business practice, their entrepreneurial intention increased through the simulation of attitudes and perceived behavioural control.

To conclude, the bulk of prior research seems to suggest a negative relationship between corruption perception and entrepreneurial intention. Thus, based on evidence suggesting that entrepreneurial exposure can hold a negative influence when prior experience has been adverse (Zapkau *et al.*, 2015; Newbery *et al.*, 2018), we anticipate that perceived corruption is likely to interact with the indirect influence of entrepreneurial exposure on entrepreneurial intention. In

fact, such moderating influence has been found in prior works. For instance, Pathak *et al.* (2015) found that the strength of an entrepreneur's ties to other entrepreneurs may be especially important in contexts where corruption is endemic. In theory, the authors argued that the effect of vicarious modelling on entrepreneurial behaviour is more important where corruption is rife. The thinking here is that the support received from entrepreneurial exposure can help individuals to overcome institutional voids caused by corruption. In other words, cultivating personal trust with other entrepreneurs will offset the lack of institutional trust. On a more general note, Ghura *et al.* (2020) concluded that corruption acts as a moderator between formal institutions and entrepreneurship. Harraf *et al.* (2021) also reported that levels of corruption interact with various determinants of entrepreneurial activity. Thus, espousing TPB to ascertain the drivers of entrepreneurial activity, along with entrepreneurial exposure, three further hypotheses are proposed:

H2a. *Perceived corruption moderates the influence of entrepreneurial exposure on individuals' entrepreneurial attitudes*

H2b. *Perceived corruption moderates the influence of entrepreneurial exposure on individuals' self-efficacy*

H2c. *Perceived corruption moderates the influence of entrepreneurial exposure on individuals' subjective norms*

For illustration, the relationships to be tested are depicted in figure 1.

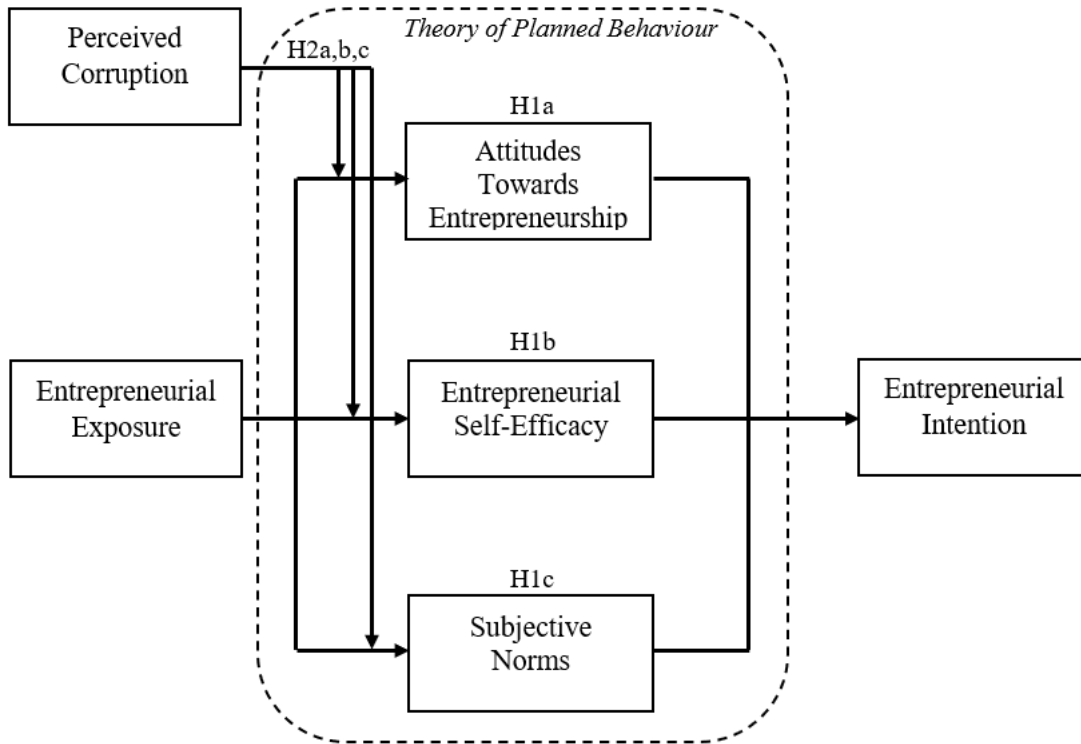


Figure 1: Research Model

4. Method

4.1. Data Collection

To test the hypotheses, data were collected from Algeria, Egypt, Kazakhstan, Kyrgyzstan and Ukraine. The choice of these settings was based on insights from the 2022 corruption perception index which observed 180 countries. By comparison, Eastern Europe, Central Asia, the Middle East and North Africa returned some of the lowest transparency scores (indicating high levels of corruption). Hence, data collection was also motivated by access to respondents in countries within these regions. The choice of contexts is also informed by the socio-cultural diversity between North Africa and the post-Soviet Union countries in the sample. Islam is prevalent in the Central Asia and North Africa while Christianity is common in Ukraine. In terms of their corruption profile, Kazakhstan is ranked 101st, Algeria and Ukraine a joint 116th,

Egypt 130th and Kyrgyzstan 140th (Transparency International, 2022). In Eastern Europe and Central Asia, high-levels of corruption is thought to be caused by political instability, authoritarianism and weak institutions. Likewise, corruption is still prevalent in the Middle East and North Africa as new regimes (in Egypt and Algeria for example) have been unsuccessful in stemming the tide (Transparency International, 2022).

The survey was circulated to students in selected universities via a web link. Completion was aided by the researchers' personal networks to draw attention and encourage participation along with social media campaigns in some instances. In total, 1,065³ valid questionnaires were returned and, in the absence of a definitive sampling frame, a non-probability convenience sampling approach was used as is common in entrepreneurship studies (e.g. Wilson *et al.*, 2007; Wilson *et al.*, 2009; Haddoud *et al.*, 2020; Onjewu *et al.*, 2022). This practice has also been used in cross country studies (Nowiński *et al.*, 2019; Ashraf *et al.*, 2021; Kara *et al.*, 2022). Nevertheless, there are generalisability concerns when undertaking non-random sampling. To overcome this likely weakness, data was sourced from a relatively large sample. It is thought that non-probability sampling can still generate reliable data when high participation levels are achieved (Coviello & Jones, 2004).

4.2. Measures

In this study, entrepreneurial self-efficacy was measured with eight items adapted from McGee *et al.* (2009) with at least one item for each of the five sub-dimensions. ESE was observed using a single measure while the other two TPB constructs [attitudes toward entrepreneurship and subjective norms] were appropriated from Liñán & Chen (2009). Similarly, entrepreneurial intention was measured using three items derived from Liñán & Chen (2009). All items were

³ The web-based distribution of the survey made it impossible to discern the number of questionnaires circulated.

measured on a 5-point Likert scale. Entrepreneurial exposure was assessed with slightly modified items adapted from Krueger (1993). For this variable, a single item composite of three 'Yes/No' questions was developed, yielding a scale of 0 to 3. The questions asked (1) if anyone in the respondents' close or extended family runs his/her own business, (2) if the respondent personally knows anyone outside the family who runs a business, and (3) if the respondent has ever been personally involved in entrepreneurship activity. Lastly, perceived corruption was captured using three self-developed items weighed on a 5-point Likert scale probing the prevalence of corruption and the urge to engage in bribery during entrepreneurial activity. As Malito (2014) notes, there is a great diversity of indicators and measures for corruption. Yet, although existing indicators refer to some form of abuse of power for private gain, they are limited due to their ambiguity and sample inappropriateness. For instance, some studies merely report the opinions of experts or elites. Owing to these reasons, Knack (2007) contends that single source/single dimension items are superior to composite, aggregate measures. Hence, Transparency International's Global Corruption Barometer [GCB] is deemed a step in the right direction but not all countries are surveyed. In fact, none of the countries investigated in this inquiry have been covered by GCB in recent years. Thus, the authors believe that the approach taken in this research, where corruption perception is derived from a single source (respondent) and contextualised in the specific domain of entrepreneurship, is adequate to satisfy the research aim. The appendix presents the full list of measures.

The surveys were administered in local languages. In the case of four countries these were the officially recognized languages of Arabic for Algeria and Egypt, and Russian for Kazakhstan and Kyrgyzstan. In the case of Ukraine, although the survey was also distributed in Russian, this is not the *de jure* means of communication. However, it is spoken and understood by a huge majority of the population. Across the board, the surveys were translated by native

speakers of the local language who were also proficient in English and familiar with the study's themes.

4.3. Sample Characteristics

In total, the study was based on a sample of 1,065 respondents, with 77 from Kazakhstan, 124 from Kyrgyzstan, 128 from Ukraine, 350 from Algeria and 386 from Egypt. Characteristics of their gender, age and level of study are presented in table 1. In the full sample, 61.5% were females, while 38.5 were males. In terms of age, the majority of students were less than 23 years old. Turning to the level of study, over 69.2% were undergraduate students.

Table 1
Sample characteristics

<i>Study Sample</i>	<i>N = 1,065</i>
Gender	Percent
Female	61.5%
Male	38.5
Total	100%
Age	Percent
18-19	20.1%
20-21	35.1%
22-23	20.5%
23-25	10.7%
26 and older	13.7%
Total	100%
Level of study	Percent
Undergraduate students	69.2%
Graduate students	25%
Postgraduate or doctorate students	5.9%
Total	100%
Country	Number
Kazakhstan	77
Algeria	350
Ukraine	128
Kyrgyzstan	124
Egypt	386

5. Analysis

The hypotheses of the study have been tested through a variance-based partial least Squares structural equation modelling (PLS-SEM) technique. The software used was WarpPLS 7.0 developed by Kock (2020). This approach was deemed more appropriate than co-variance based structural equation modelling (CB-SEM) as PLS-SEM is a superior procedure when the research focus is on the explanation of variances (Hair *et al.*, 2020). To reiterate, the crux of this study is to explain the variance in entrepreneurial intention resulting from the moderating effect of corruption on the link between entrepreneurial exposure and the indicators of planned behaviour.

5.1 Measurement Model

Prior to path analysis, the reliability and validity of variables in the measurement model ought to be assessed. For reflective variables, reliability is typically examined through Composite Reliability (CR) and Cronbach's Alpha (α). Validity is checked via the Average Variance Extracted (AVE) and constructs loadings for convergent validity, as well as the square roots of AVE for discriminant validity. As shown in table 2, all variables surpassed the thresholds. For discriminant validity, the Fornell-Larcker criterion (1981) has also been met. Additionally, the HTMT values were also examined, and they suggested no major issues in discriminant validity. Hence, the reliability and validity of all latent constructs have been confirmed. Lastly, also as shown in table 2, collinearity issues were assessed through Variance Inflation Factor [VIF] scores. No issues of multicollinearity were noted as all values were significantly below the recommended threshold of 5 (Hair *et al.*, 2020; Kock & Lynn, 2012).

Table 2

Reliability, Validity and Collinearity

	CR	α	AVE	VIF
EXP	Single Item	Single Item	Single Item	1.088
ATT	0.865	0.766	0.682	1.804
ESE	0.911	0.889	0.562	1.631
SN	0.856	0.775	0.600	1.365
EI	0.916	0.861	0.784	1.749
CORR	0.799	0.621	0.573	1.030
GEN	Single Item	Single Item	Single Item	1.041

EXP=Entrepreneurial Exposure; ATT=Attitudes towards Entrepreneurship; ESE=Entrepreneurial Self-Efficacy; SN=Subjective Norms; EI=Entrepreneurial Intention; CORR: Perceived Corruption; GEN=Gender

5.2 Structural Model

Following the assessment of validity and reliability of all latent variables, the structural model (i.e. the relationships between variables) is now examined. The resulting path coefficients (β) and p -values (p) are reported in table 3. Results for each country are presented separately to depict the national distinctions. This is followed by a measurement invariance assessment to ensure that there were no differences in the observation of variables in the five countries, and then a Multi-Group Analysis [MGA] to discern disparity in the correlations. Accordingly, H1a and H1b were accepted in all countries, while H1c was accepted in all but Kyrgyzstan, in which the influence of entrepreneurial exposure on entrepreneurial intention mainly manifested through attitudes and self-efficacy (without subjective norms). As shown in table 3, the indirect effects of entrepreneurial exposure on entrepreneurial intention was significant and positive across all five countries. Hence, it can be concluded that at least a partial mediation exists. As for the moderating influence of perceived corruption, this has only materialised in three countries namely Egypt, Kazakhstan and Ukraine. Precisely, the influence was negative in Egypt Kazakhstan and, in Ukraine, only positive for the entrepreneurial exposure - entrepreneurial self-efficacy relationship but negative for the exposure – attitudes and subjective norms links. Hence, H2a, H2b and H2c are accepted in Kazakhstan and Ukraine,

while rejected in Algeria and Kyrgyzstan. As for Egypt, only H2a and H2b are accepted. These results are presented in table 3 below.

Table 3

Path coefficients (β) and P-values (p).

Hypotheses & Relationships	Kazakhstan	Kyrgyzstan	Ukraine	Algeria	Egypt
H1a, H1b, H1c.					
EXP $\rightarrow$ ATT	$\beta = -0.201$, $p \leq 0.01$	$\beta = -0.307$, $p \leq 0.01$	$\beta = -0.224$, $p \leq 0.01$	$\beta = -0.221$, $p \leq 0.01$	$\beta = -0.155$, $p \leq 0.01$
ATT $\rightarrow$ EI	$\beta = -0.265$, $p \leq 0.01$	$\beta = -0.532$, $p \leq 0.01$	$\beta = -0.530$, $p \leq 0.01$	$\beta = -0.425$, $p \leq 0.01$	$\beta = -0.398$, $p \leq 0.01$
EXP $\rightarrow$ ESE	$\beta = -0.261$, $p \leq 0.01$	$\beta = -0.304$, $p \leq 0.01$	$\beta = -0.141$, $p = 0.023$	$\beta = -0.189$, $p \leq 0.01$	$\beta = -0.125$, $p \leq 0.01$
ESE $\rightarrow$ EI	$\beta = -0.462$, $p \leq 0.01$	$\beta = -0.136$, $p = 0.027$	$\beta = -0.228$, $p \leq 0.01$	$\beta = -0.192$, $p \leq 0.01$	$\beta = -0.131$, $p \leq 0.01$
EXP $\rightarrow$ SN	$\beta = -0.330$, $p \leq 0.01$	$\beta = -0.366$, $p \leq 0.01$	$\beta = -0.243$, $p \leq 0.01$	$\beta = -0.215$, $p \leq 0.01$	$\beta = -0.088$, $p = 0.024$
SN $\rightarrow$ EI	$\beta = -0.242$, $p \leq 0.01$	$\beta = -0.083$, $p = 0.121$	$\beta = -0.136$, $p = 0.026$	$\beta = -0.194$, $p \leq 0.01$	$\beta = -0.220$, $p \leq 0.01$
H2a, H2b, H2c.					
CORR* EXP $\rightarrow$ ATT	$\beta = -0.332$, $p \leq 0.01$	$\beta = -0.017$, $p = 0.405$	$\beta = -0.129$, $p = 0.033$	$\beta = -0.067$, $p = 0.075$	$\beta = -0.168$, $p \leq 0.01$
CORR* EXP $\rightarrow$ ESE	$\beta = -0.221$, $p \leq 0.01$	$\beta = -0.061$, $p = 0.193$	$\beta = -0.222$, $p \leq 0.01$	$\beta = -0.018$, $p = 0.351$	$\beta = -0.172$, $p \leq 0.01$
CORR* EXP $\rightarrow$ SN	$\beta = -0.213$, $p \leq 0.01$	$\beta = -0.012$, $p = 0.432$	$\beta = -0.117$, $p = 0.047$	$\beta = -0.000$, $p = 0.496$	$\beta = -0.044$, $p = 0.160$
Indirect Effect					
EXP $\rightarrow$ EI	$\beta = -0.254$, $p \leq 0.01$	$\beta = -0.235$, $p \leq 0.01$	$\beta = -0.184$, $p \leq 0.01$	$\beta = -0.172$, $p \leq 0.01$	$\beta = -0.098$, $p = 0.014$
R ² for EI	0.697	0.431	0.525	0.398	0.372

Prior to the MGA, the assessment of measurement invariance did not reveal significant differences across countries⁴. To be sure, the MGA analysis followed a constrained latent growth procedure. As shown in table 4, there are several significant differences in the pairwise comparisons.

⁴ Significant differences were noted in 8 out of 240 item loading comparisons, implying that 8 items only showed significant measurement invariances.

For instance, the positive influence of entrepreneurial exposure on self-efficacy was the strongest in Kyrgyzstan and Kazakhstan, and for both countries this is significantly greater than that observed in Egypt and Ukraine. Also, the influence of entrepreneurial exposure on subjective norms has the strongest positive influence on subjective norms in Kyrgyzstan and Kazakhstan. In both countries this influence is significantly greater than observed in Algeria, Egypt and Ukraine. As for the link between exposure and attitudes, it was significantly lower in Egypt compared to Kazakhstan, Kyrgyzstan and Ukraine. Regarding the influence of attitudes on entrepreneurial intention, this attribute was strongest in Kyrgyzstan and Ukraine, and as well significantly greater than in Algeria and Egypt. Turning to the influence of self-efficacy on entrepreneurial intention, Kazakhstan and Ukraine revealed significantly greater influences compared to Algeria and Egypt. Concerning the impact of subjective norms, results in Kyrgyzstan were significantly different from Kazakhstan, Ukraine and Egypt. As for the moderating influence of corruption in the links between entrepreneurial exposure and the TPB constructs, significant differences were mostly noted between Algeria and Kyrgyzstan versus Egypt, Ukraine. The MGA outcomes for significant differences are presented in table 4. However, it is important to note that such results are affected by sample size and standard errors differences, which may underestimate some effects. Hence, the MGA's results should be taken with great caution.

Table 4

MGA Results

Pairwise Comparisons	Relationships	P Value (one tailed) of difference
Kazakhstan vs. Kyrgyzstan	ESE→EI	0.016
	SN→EI	≤0.01
Kazakhstan vs. Ukraine	EXP→ESE	≤0.01
	EXP→SN	≤0.01
Kazakhstan vs. Algeria	EXP→SN	0.023
	ATT→EI	0.023
	ESE→EI	≤0.01

	SN→EI	≤0.01
Kazakhstan vs. Egypt	EXP→ATT	≤0.01
	EXP→ESE	≤0.01
	EXP→SN	≤0.01
	ESE→EI	≤0.01
	SN→EI	≤0.01
	CORR*EXP→SN	0.021
Kyrgyzstan vs. Ukraine	EXP→ESE	0.021
	EXP→SN	0.041
	ESE→EI	≤0.01
	SN→EI	≤0.01
	CORR*EXP→ATT	0.019
	CORR*EXP→SN	≤0.01
Kyrgyzstan vs. Algeria	EXP→SN	≤0.01
	ATT→EI	≤0.01
	CORR*EXP→ATT	≤0.01
	CORR*EXP→SN	≤0.01
Kyrgyzstan vs. Egypt	EXP→ATT	0.010
	EXP→ESE	≤0.01
	EXP→SN	≤0.01
	ATT→EI	0.016
	SN→EI	≤0.01
	CORR*EXP→ATT	≤0.01
	CORR*EXP→ESE	≤0.01
	CORR*EXP→SN	≤0.01
Ukraine vs. Algeria	EXP→SN	0.042
	ATT→EI	≤0.01
	ESE→EI	≤0.01
	SN→EI	≤0.01
	CORR*EXP→SN	0.017
Ukraine vs. Egypt	EXP→ATT	0.010
	EXP→SN	≤0.01
	ATT→EI	≤0.01
	ESE→EI	≤0.01
	CORR*EXP→ESE	≤0.01
Algeria vs. Egypt	EXP→SN	≤0.01
	CORR*EXP→ESE	0.011

To conclude, table 5 summarises the hypothesis testing across the five countries in the sample.

Table 5

Hypothesis Testing

	Kazakhstan	Kyrgyzstan	Ukraine	Algeria	Egypt
H1a. <i>Entrepreneurial Exposure holds a positive influence on Entrepreneurial Intention through enhancing individuals' attitudes toward entrepreneurship</i>	Accept	Accept	Accept	Accept	Accept
H1b. <i>Entrepreneurial Exposure holds a positive influence on Entrepreneurial Intention through enhancing individuals' self-efficacy</i>	Accept	Accept	Accept	Accept	Accept
H1c. <i>Entrepreneurial Exposure holds a positive influence on Entrepreneurial Intention through enhancing individuals' subjective norms</i>	Accept	Reject	Accept	Accept	Accept
H2a. <i>Perceived corruption moderates the influence of entrepreneurial exposure on individuals' entrepreneurial attitudes</i>	Accept	Reject	Accept	Reject	Accept
H2b. <i>Perceived corruption moderates the influence of entrepreneurial exposure on individuals' self-efficacy</i>	Accept	Reject	Accept	Reject	Accept
H2c. <i>Perceived corruption moderates the influence of entrepreneurial exposure on individuals' subjective norms</i>	Accept	Reject	Accept	Reject	Reject

6 Discussion

This study has uncovered complex interactions between entrepreneurial exposure, perceived corruption and entrepreneurial intention across five different countries. In so doing, our findings advance extant entrepreneurship literature in several ways. First, they clarify the conflicting evidence on the corruption-entrepreneurship nexus offered by prior works. By conceiving a more nuanced perspective in which corruption plays a moderating role in different contexts, we address concerns about the ambiguous influence of corruption in entrepreneurship activity [e.g. Castro *et al.* (2020); Bruton *et al.* (2021); Ajide (2022); Cavotta & Phillips (2022); Goel & Nelson (2023); Wittberg *et al.* (2023)]. Second, the findings contribute to TPB by identifying and proving external institutional contingencies as valid background factors shaping the TPB dimensions that culminate in entrepreneurship. This was previously overlooked by Sok *et al.* (2021) and Onjewu *et al.* (2022). Thus, a more comprehensive understanding of the role of TPB in bridging external forces with personal attitudes is offered.

Third, the study offers fresh evidence encompassing five emerging countries, which heeds prior calls for such multi-country studies to capture contextual contingences (Zapkau *et al.*, 2017; Abbasianchavari & Moritz, 2020; van den Groenendaal, 2022). Earlier studies have typically focused on single countries and this has hindered contextual comparison.

6.1 Summary of Key findings

To begin with, entrepreneurial exposure was found to hold a positive influence on entrepreneurial intention in all five countries, and this effect ensued through attitude towards entrepreneurship, entrepreneurial self-efficacy and subjective norms (with the exception of Kyrgyzstan where the influence through subjective norms did not materialise). This is consistent with previous findings reporting the direct and indirect effects of entrepreneurial exposure on entrepreneurial intention in various settings (Carr & Sequeira, 2007; Zapkau *et al.*, 2017; Onjewu *et al.*, 2022). For instance, a study in South Africa reported that previous entrepreneurial experience, and knowledge of successful entrepreneurs are positively related to attitude towards entrepreneurship and subjective norms (Malebana & Mothibi, 2023). Hence, our findings corroborate extant results and demonstrate the positive effect of entrepreneurial exposure in transformation economies, such as Kazakhstan, Kyrgyzstan and Ukraine, and in the Arab and north African context, inherently Algeria and Egypt.

As for the role of perceived corruption, the influence was nuanced as several differences emerged in relation to its moderating effect on the exposure-TPB link. These differences refute the assumption that corruption wields an unconditional negative influence on entrepreneurship and aspiring entrepreneurs (Allini *et al.*, 2017; Berdiev & Saunoris, 2017; Dvouletý & Orel, 2019; Thanh *et al.*, 2020; Castelló-Sirvent & Pinazo-Dallenbach, 2021). Thus far, evidence of this moderating role has scarcely been reported, hence this study provides novel insights in this regard. More importantly, the current cross-country analysis afforded an empirical opportunity

to explore a few contextual differences that may explain variations in the effect of entrepreneurial exposure and perceived corruption. These permutations are further discussed in the following sections.

6.2 The Role of Entrepreneurial Exposure

Significant relationships between entrepreneurial exposure and the TPB factors has been observed in Kazakhstan, Kyrgyzstan and Ukraine, three Soviet Union countries that have undergone a transition from communism to capitalism over the last three decades. This development can be interpreted in two ways. First, it suggests that the overall experience of individuals seizing opportunities that arose from less controlled and more open markets has been positive. Preliminary evidence seem to suggest that the effect of exposure might be more visible in these countries than in Algeria and Egypt, where practicing entrepreneurship might be motivated by necessity more than opportunity. In fact, recent GEM data from Egypt illustrate that the number of necessity-driven ventures in the country has been increasing since 2016 (Ismail *et al.*, 2019), and this is also the case in Algeria (St Jean *et al.*, 2014). This trend can be attributed, partly, to a high rate of youth unemployment in north African countries (Baah-Boateng, 2016). Therefore, akin to Türk *et al.* (2019), it is deduced that the more facilitative the entrepreneurial exposure is, the more positive the consequent effect on entrepreneurial intention via attitudes, entrepreneurial self-efficacy and subjective norms. That being said, it is worth mentioning that the non-significant effect of subjective norms on entrepreneurial intention in Kyrgyzstan could be explained by the findings of Ardichvili & Gasparishvili (2001). They reported that employees in Kyrgyzstan showed slightly higher individualistic values than in former soviet nations. The authors further explained that individualism is associated with individual initiative and decisions, which could explain the trivial role of subjective norms.

6.3 The Moderating Role of Corruption in Transformation Economies

Potential differences were detected among the three former Soviet Union states [Kazakhstan, Kyrgyzstan and Ukraine] in the moderating role of corruption. Precisely, the effect was nonsignificant in Kyrgyzstan, negative in Kazakhstan and fluctuating in Ukraine. While such differences require further investigations, some initial thoughts could be articulated. Arguably, the most intriguing finding was the positive moderation of corruption perception on the association between entrepreneurial exposure and entrepreneurial self-efficacy among Ukrainian participants. This compels further scrutiny. In this respect, Denisova & Prytula (2018) explain that Ukrainian firms and their management are accustomed to making informal payments to complete tasks ‘such as to speed up an application or to minimise bureaucracy’. It is also noted that informal payments in Ukraine are initiated by entrepreneurs and not institutional agents. Therefore, such practice could be deemed as normal and rub off on budding entrepreneurs who are exposed to family members and close acquaintances who operate in this manner.

Although not all items capturing entrepreneurial self-efficacy demonstrate ‘getting things done’, at least one of them interrogates how respondents ‘deal effectively with day-to-day problems and crises’. Therefore, exposure to entrepreneurship may increase understanding of how to use pay-offs to ‘get things done’ and exhibit entrepreneurial self-efficacy. It is also probable that the higher the level of perceived corruption, the more valuable this knowledge may be. Furthermore, proximity to practicing entrepreneurs seems to be a source of confidence for Ukrainian students, and perceived corruption strengthens this link. The ‘positive’ role of perceived corruption in this context could then be explained by a general tendency to ‘grease the wheels’. Indeed, Nakara *et al.* (2020) explain that bribe payments could make it easier to commence an entrepreneurial career and overcome restrictions, especially in emerging markets. As such, corruption aids the manoeuvring of an unfavourable businesses climate. This

logic is sustained by Cuervo-Cazurra's (2016) reasoning that while bribes increase transaction costs in developed nations, they decrease such costs in transition economies like Ukraine. Similar evidence was noted in Mexico as Pinazo-Dallenbach & Castelló-Sirvent (2023) highlighted the positive role of corruption as a shortcut facilitating the process of entrepreneurial activity in nations lacking supportive entrepreneurship policy. The current findings cohere with Traikova *et al.*'s (2017) analysis of Bulgaria where corruption has been perceived as an effective business practice that contributes to the formation of entrepreneurial intention through the TPB dimensions. Likewise, in Italy, Ceresia & Mendola (2019) deduced that higher levels of perceived corruption predict a higher level of entrepreneurial intention. In other words, the rate of corruption is so high to the extent that 'greasing the wheels' has become an inevitable exercise for overcoming regulatory restrictions. However, in contrast to those earlier findings from Bulgaria, evidence from Ukraine shows that corruption negatively moderates the link between exposure to entrepreneurship and attitude to entrepreneurship as well as subjective norms. Thus, when the perception of corruption is high, the influence of entrepreneurial exposure on attitude towards entrepreneurship and family and friends' support for entrepreneurial career weakens. Overall, in Ukraine, it could be suggested that while perceived corruption might potentially strengthen the positive influence of exposure on individuals' confidence in getting things done [or entrepreneurial self-efficacy], it holds the opposite effect on their attitudes towards entrepreneurship.

As for Kazakhstan, perceived corruption negatively moderates the link between entrepreneurial exposure and all three TPB variables. According to the OECD (2017), Kazakhstan, while still lagging behind leading economies in respect to corruption, has set in motion institutional reforms to enforce its anti-corruption agenda. This includes the adoption of an anti-corruption charter by entrepreneurs in Kazakhstan and the creation of an Ombudsman to administer punishment for corruptive practices. Hence, one may suggest that when anti-corruption

institutions pose a significant threat to accustomed ways of ‘getting things done’ through pay-offs, this would, in turn, decrease interest in entrepreneurship activity.

In Kyrgyzstan, the trivial role of perceived corruption could also be due to institutional aspects. The OECD (2015: 100) reports that “in Kyrgyzstan there is rather sceptical view towards the possibility of changing the attitude of businesses to corruption and stopping bribery”. While there exist anti-corruption laws, they are to some extent vague and therefore difficult to enforce. Thus, it could be suggested that in contexts where the anti-corruption apparatus is perceived as ineffective, high corruption would not play a hampering role [as per the ‘greasing the wheels’ effect].

6.4 The Moderating Role of Corruption in Arab Countries

The moderating effect of corruption in the link between entrepreneurial exposure and the TPB measures was nonsignificant in Algeria but negative in Egypt, particularly in relation to entrepreneurial self-efficacy. Both Algeria and Egypt are Arab Islamic countries, and the potential differences can be explained by the economic and policy landscape, rather than cultural and religious peculiarities. Indeed, while both countries recently experienced a popular uprising and regime change, perceptions toward new regimes differ in relation to the fight against corruption. A recent survey by the Arab Barometer (2021) reported that despite a majority of Algerians (82%) acknowledging that corruption is prevalent in state institutions, a ‘sizable majority believe that the government was fighting corruption to a large or medium extent – 73%, and the largest proportion among surveyed countries’. On the other hand, in Egypt, notwithstanding the government’s pledge to tackle corruption, the perception of Egyptians has remained stable since 2013, with 84% of the populace perceiving that corruption within state agencies and institutions thrives to a large or medium extent, but “only half (51%) say that the government is working to crackdown on corruption and root out bribes to a large

or medium extent' (Arab Barometer, 2021). This means that Algerians seem to have relatively more confidence compared to Egyptians in the ability of their respective governments to tackle corruption. In this regard, Miao *et al.* (2022) explain that weak and ineffective institutions could potentially reduce the expression of entrepreneurial effort.

Overall, when comparing findings from the two contexts described above, two key observations can be made. First, entrepreneurial exposure plays a comparatively greater role in nurturing entrepreneurial intention via cognitive TPB mechanism in transformation economies than in more traditional economies. Second, understanding the moderating influence of perceived corruption on the relationship between entrepreneurial exposure and entrepreneurial intention requires consideration of the psyche of nascent/potential entrepreneurs vis-à-vis the institutional position on corruption.

7. Conclusion

To conclude, the verdict of this study is that entrepreneurial exposure influences entrepreneurial intention through the mediating role of all cognitive factors excluding the case of subjective norms in Kyrgyzstan. Moreover, perceived corruption exerted a significant moderating influence on the entrepreneurial exposure - TPB nexus in three of the studied countries. To contemplate the wider significance of these findings, the inquiry now concludes by reflecting on its primary implications, both theoretical and practical, alongside some methodological limitations and future lines of inquiry.

Theoretically, the study has extended the remit of TPB in entrepreneurship by exploring the interactions between prior entrepreneurial exposure, perceived corruption and TPB's cognitive factors in predicting entrepreneurial activity. Critically, this interaction is more complex than a direct influence, as perceived corruption is found to regulate the substantive entrepreneurial exposure – entrepreneurial behaviour nexus.

Also, by gathering and examining multi-country data, preliminary understanding of how different sociocultural systems dictate entrepreneurial aspirations has been offered. In the spirit of moving the entrepreneurship discourse forward, calls for evidence on the interplay between corruption and entrepreneurship by Castro *et al.* (2020) and Cavotta & Phillips (2022) have been heeded. Equally, Zapkau *et al.*'s (2017) contention that contingent factors in the environment are likely to moderate the relationship between individuals' entrepreneurial exposure and their entrepreneurial behaviour is strongly supported. In terms of context, the current focus on Algeria, Egypt, Kazakhstan, Kyrgyzstan and Ukraine contributes toward addressing Bruton *et al.*'s (2021) appeal for more empirical focus on entrepreneurs in emerging countries operating in formal and informal sectors.

Practically, the findings also pose unique implications for entrepreneurial development in the respective countries. Entrepreneurship is an important area of study because of its important role in countries' economies (Akkermans *et al.*, 2021). Recalling that perceived corruption affects the link between entrepreneurial exposure and entrepreneurial behaviour in Egypt, Kazakhstan and Ukraine to the exclusion of Algeria and Kyrgyzstan, policymakers in these contexts can reflect on the results to review anti-corruption legislation. In Egypt, for example, the performance of entrepreneurs in the informal sector is crucial to the country's economic growth (Dana, 2000; Haddoud *et al.*, 2022). Hence, the current evidence that perceived corruption hampers the development of entrepreneurial cognition warrants the attention of Egypt's leading anti-corruption agency; the Administrative Control Authority [ACA]. In its current form, Laws 54 of 1964 and 92 of 1975 of the Egyptian constitution do not specifically legislate for public servants' financial disclosure and illegal gains derived in the informal economy. Such tailored regulation would expand the scope of the ACA's mandate and serve as a deterrent to corrupt practices that curtail entrepreneurial development in Egypt. In turn, in the case of Kazakhstan and Ukraine, such anticorruption legislation should be accompanied by

an overall streamlining of the public administration - business interface. To be sure, anticorruption activities if not addressed by simplifying public-private interactions could in fact deter individuals from considering entrepreneurship. In Algeria and Kyrgyzstan, the trivial role of perceived corruption in the entrepreneurial exposure and entrepreneurial behaviour nexus should not be interpreted as an affirmation of the former in vindication of Bardhan's (1997) earlier argument. Rather, evoking Gray & Kaufmann's (1998) view, in the long run, lower levels of corruption will create an enabling environment for foreign direct investment, the allocation of talent and greater public revenue. The synergy of these factors constitutes *terra firma* for nationwide entrepreneurial development.

8. Limitations and future studies

It is necessary to acknowledge that this study is not without limitations although its shortcomings open up avenues for future research. First, while efforts were made to achieve a large sample size, generalisability remains limited, due to the non-probability nature of our sampling procedure. Therefore, we summon future works to replicate the path model in similar contexts to validate its relevance. Moreover, while countries from two regions with high levels of perceived corruption (i.e. Africa and Central Asia) were selected, Latin American countries also rank high in corruption perception. Hence, future works are solicited to replicate our study in the South American continent. Second, all relationships in this study were interpreted as causal links based on theoretical logic. The cross-sectional nature of the data permits the assessment of associations rather than causality. Therefore, the relationships described in this study are simply associations for which causal interpretations should be made with caution. For this reason future research could apply longitudinal methods in order to validate the associations identified in this study. Third, given that sensitive themes related to corruption and bribery were surveyed in the questionnaire, bias arising from social desirability, consistency

motives and leniency is likely. Therefore, more objective measures could be used in future surveys to mitigate this possibility. Fourth, there was an imbalance in the sample with respect to the number of participants from each country. In fact, Algeria and Egypt constituted the majority of respondents owing to the non-probability and convenience nature of the sampling approach adopted. Such differences have probably also led to some effects being underestimated in the MGA. Thus, future research can investigate more equal samples to verify the current findings.

Appendix: List of items

Entrepreneurial Exposure [Composite 0-3]

- Does anyone in your close or extended family run his/her own business? Y/N
- Do you personally know anyone outside your family who runs his/her own business? Y/N
- Have you ever been involved personally in entrepreneurship activity? Y/N

Entrepreneurial Intention [5-point Scale]

- My professional goal is to become an entrepreneur
- I will make every effort to start and run my own firm
- I am determined to create a firm in the future

Subjective Norms [5-point Scale]

If you decided to create a firm, would people in your close environment approve of that decision?

- Your close family
- Your friends
- Your colleagues
- Society in general

Entrepreneurial Self-Efficacy [5-point Scale]

How much confidence do you have in your ability to:

- Come up with a new idea for a product or service?
- Estimate customer demand for a new product or service?
- Estimate the amount of funds and working capital to start new business?
- Network - i.e., make contact with and exchange information with others?
- Convince others to invest time, money or know-how in my venture?
- Deal effectively with day-to-day problems and crises?
- Inspire, encourage, and motivate my employees?
- Manage the financial assets of my business?

Attitudes Towards Entrepreneurship [5-point Scale]

- Being an entrepreneur implies more advantages than disadvantages to me
- A career as entrepreneur is attractive for me
- If I had the opportunity (possibility) and (sufficient) resources, I'd like to start a firm

Perceived Corruption [5-point Scale]

- One should not start a business in my country if s/he does not want to pay bribes
- Entrepreneurs who do not pay bribes will fail in my country
- Corruption is common in my country.

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