



An Analysis of Small and Medium-sized Firms' Prosocial Behaviours in Vietnam

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Abstract. This study investigates the interplay between entrepreneurial resources, social networks, and institutional frameworks, and their collective impact on the tripartite dimensions of prosocial behaviour—social, people, and environmental. Drawing from the resource-based view, social identity theory, and institutional theory, we analyse micro-level data from 2,400 firms in Vietnam spanning 2008 to 2015. Employing a random effects model, our findings suggest that entrepreneurs' prosocial behaviours amidst institutional challenges emerge from a strategic amalgamation of individual resources and diverse networks. However, the dynamic nature of network characteristics implies that sustaining them at ideal levels as a long-term strategy for fostering prosocial behaviours may be impractical. Therefore, we advocate for policymakers to focus on improving the quality of local institutions to support sustainable practices. Additionally, our research indicates that the quality of formal institutions moderates the influence of social networks on prosocial behaviours via a substitution effect for network diversity and via a complementary effect for network size.

Keywords: corporate social responsibilities; network size; network diversity; institutional quality; Vietnam.

1. Introduction

Over the past two decades, emerging markets have seen remarkable growth alongside significant environmental and social challenges as a result of prioritizing employment and income generation at the expense of environmental quality² (Dasgupta et al., 2002). The evidence suggests a complex interplay between economic expansion and societal and environmental well-being and raises the question of how emerging markets can balance economic growth and societal concerns before reaching a developmental threshold—after which social and environmental sustainability can be prioritized. In these economies,

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governments sought to promote prosocial behaviours at the corporate level, reflecting a policy shift towards reconciling economic objectives with societal and environmental sustainability (Biswas & Roy, 2015; Figge & Hahn, 2012; Vo & Ho, 2021). However, these nascent policies will not be useful unless the efforts are implemented at the firm level.

The literature on prosocial and environmental behaviour is extensive at the firm level and offers various theoretical lenses (Van Aaken et al., 2013). For example, the economic perspective views prosocial behaviours as driven by economic incentives and individual rent-seeking (Rodgers, 2010). In contrast, the political perspective emphasizes altruistic motives beyond mere economic benefits (Scherer & Palazzo, 2011). The empirical evidence shows that the manifestation of firm-level prosocial behaviours is beyond the entrepreneur's motivation and is not homogenous across economies. Prosocial behaviour, therefore, is a dynamic process, contingent on a myriad of factors, such as cultural context and social norms (Pacheco et al., 2010), social institutions (Meek et al., 2010), the broader social environment (Enderwick, 2018; Muñoz & Dimov, 2015; Van Scotter & Roglio, 2020), and overarching institutional dynamics (Biswas & Roy, 2015; Cai et al., 2016; Campbell, 2007; Silajdi et al., 2015). This body of research reflects the complex interplay of economic, social, and institutional influences across different levels, from the individual to the regional. Despite this wealth of insights, a unified framework remains lacking that cohesively integrates the varied motivations and factors behind prosocial behaviour within firms. Such a framework would clarify how different factors—from economic incentives to social and institutional pressures—converge to guide managerial decisions in leveraging prosocial actions for social impact (Van Aaken et al., 2013).

This paper addresses these shortcomings and enhances the existing body of research on prosocial practices by presenting a multi-layered framework that captures the dynamics of firm-level social behaviours through the lens of the resource-based view of the firm, social network theory and institutional theory. Our framework elaborates on how multiple layers of factors influence a firm's complex prosocial actions. It posits that motivations, perceptions, decision-making, and implementation of prosocial practices are influenced not only by entrepreneurial resources (financial and human) but also by the surrounding dynamic social and institutional contexts (Athanasopoulou & Selsky, 2015; Örtenblad, 2016). We discuss that at the individual level, prosocial behaviours stem from ethical beliefs and moral values shaped by one's entrepreneurial resources and capabilities (Gruber & MacMillan, 2017; Nga & Shamuganathan, 2010). At the organizational level, we delve into the effect of informal social

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2. The Environmental Kuznets Curve hypothesis introduced by Grossman & Krueger (1995) and further explored by Dinda (2004), postulates a statistical artifact that summarises some important aspects of collective human behaviour in a two-dimensional space. It finds an inverted-U-shaped relationship between different pollutants (CO₂ and smoke) and per capita income. Environmental degradation increases faster than income at the early stages of development and slows down, relative to GDP growth, at higher income levels.

networks, their ethical and philanthropic traditions, and entrenched social norms and sustainability standards that advocate for environmentally responsible business practices (Edwards & Phan, 2013; Meek et al., 2010). At the broader macro-level, we discuss the role of formal institutions as the breeding grounds for the evolution of firm-level prosocial behaviours (De Jong et al., 2012; D. Miller, 2015). Ultimately, we suggest a comprehensive strategy to enhance the triple bottom line³ in transition economies, acknowledging the potential tension between social performance and profitability. We argue that a paradigm shift towards an optimal combination of entrepreneurial agency and social network structures would help navigate the substantial institutional hurdles to prosocial initiatives, fostering a more inclusive and effective approach in emerging markets. The existing research predominantly examines market-based organizations within liberal market economies. The advancement in economic output in these economies has paved the way for developing robust governance and regulatory institutions that emphasize stakeholders' interests and encourage corporate-level prosocial behaviours (Jamali & Karam, 2016; Muñoz & Cohen, 2018). However, the role of prosocial behaviours within emerging economies' volatile and often challenging environments remains underexplored. Institutional fragility—marked by underdeveloped legal frameworks, pervasive corruption, and inconsistent regulatory environments—can significantly impede businesses' capacity to engage in prosocial practices. Consequently, how prosocial activities are conceptualized, operationalized, and evaluated in emerging economies remains poorly understood. In emerging economies, prosocial and environmental policies are often regarded as 'an institution of transnational governance' imported from, modelled and imposed by Western countries (Debroux, 2006, p. 17). This perspective raises significant concerns about the reliability and inclusiveness of empirical findings mostly based on the context of advanced economies and highlights the need for research that fully captures the nature of prosocial practices in different contexts (for example, Bruton et al., 2010).

Our research centres on Vietnam, an emerging economy offering a compelling and unique context to examine prosocial behaviours. First, Vietnam embodies the complexities and challenges inherent in transition economies. This includes a mix of rapid industrialization, urbanization, and socioeconomic reforms that have had remarkable economic growth yet are accompanied by environmental concerns and social disparities (Tran, 2019). Second, the Vietnamese context is enriched by its strong communal and collectivist cultural values, which are deeply influenced by Confucianism, emphasizing social harmony, community cohesion, and the welfare of the collective over individual gains. These cultural underpinnings and local norms significantly supersede formal institutional frameworks influencing firms' prosocial practices.

3. The developmental goal that emphasises preserving the three states of the economic, environmental, and social environment simultaneously to ensure that future generations are able to meet their needs (Bischoff & Volkmann, 2018; Schaltegger & Wagner, 2011).

Overall, our study aims to make three significant contributions to the existing literature on pro-social practices. First, we address the critical yet under-researched issue of balancing economic growth with environmental and social sustainability in emerging markets before they reach their developmental threshold. The gained insights are practically crucial for policymakers and business leaders aiming to foster sustainable development. Second, we introduce a multi-layered framework that analyzes firm-level social behaviors through the resource-based view, social network theory, and institutional theory. By integrating these perspectives, the study offers a comprehensive approach to understanding motivations, perceptions, decision-making processes, and implementation of prosocial practices within firms, which enriches the theoretical landscape of corporate social responsibility and sustainability. Finally, we explore prosocial behaviors in a unique context—an emerging economy characterized by rapid industrialization and strong communal values influenced by Confucianism, which are more impactful than formal institutional factors. This contribution not only broadens the geographical scope of research in this field, which predominantly focused on Western economies (Risi et al., 2023), but also emphasizes the need for context-specific strategies for promoting prosocial behaviors in diverse economic settings.

The paper is structured as follows. Section 2 reviews the relevant literature and develops the hypotheses. Section 3 describes the data and proxies used in the analysis. Section 4 reports and discusses the findings. Section 5 concludes the paper and offers some policy implications.

2. Theory and Hypotheses Development

Prevailing research predominantly adopts an instrumental perspective on prosocial behaviours, viewing them through the lens of corporate investments designed to enhance corporate value and future cash flows (Lockett et al., 2006). That is, firms engage in prosocial activities as strategic responses to economic shifts and market dynamics, making such decisions as economically and strategically rational (Orlitzky et al., 2011). This rationale is echoed in strategic management theories, especially the resource-based view of the firm. The Resource-Based View (RBV) argues businesses pursue prosocial objectives in ways that eliminate the perceived trade-off between profit and social good (Porter & Kramer, 2006). Similarly, RBV posits that prosocial actions can cultivate unique and invaluable resources, enhancing a firm's competitive edge (Van Aaken et al., 2013). However, the 'virtuous circle' of mutual reinforcement between economic gains and social benefits, as proposed by Porter & Kramer (2002), does not capture the full complexity of prosocial practices. The literature contains numerous instances of firms undertaking prosocial initiatives without

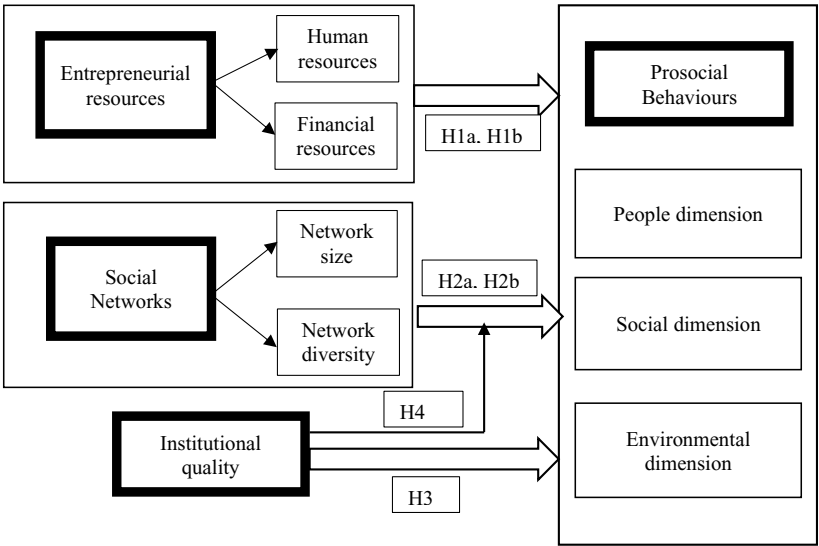
clear economic incentives (Matten & Crane, 2005), highlighting the existence of alternative motivations.

While the above theories zoom in on the individual level, the institutional approach takes a broader, macro-level view. It examines how markets, local communities and regulations shape organizational behaviours (Campbell, 2007; Marquis et al., 2007). Firms are seen as embedded within a network of formal and informal institutions, and they adopt prosocial behaviours to maintain legitimacy and survival (Brammer et al., 2012). Although organizations within the same institutional environment face similar pressures and may adopt comparable prosocial practices, variations still arise across social contexts (Kang & Moon, 2012), therefore highlighting a complex interplay between micro and macro-level factors. Alternative theoretical frameworks, advancing the conventional economic viewpoint, offer a broader understanding of firm-level prosocial behaviours. A notable paradigm is the political theory recognizing corporations as pivotal participants in democratic processes and powerful entities capable of shaping societal norms and governance within and beyond their organizational boundaries (Scherer & Palazzo, 2011). Here, firms can contribute to ethical governance and societal stewardship through their social networks, addressing the regulatory voids that characterize modern societies (Scherer & Palazzo, 2007). Other theoretical lenses strive to complement the political theory. Normative Stakeholder Theory emphasizes value creation for all stakeholders (Freeman et al., 2004), advocating that businesses are embedded in a network of interconnected stakeholders where an action favouring one group can influence perceptions and behaviours across the network. Therefore, the firm's action potentially triggers a cascade of prosocial actions. Integrative Social Contract Theory introduces the concept of macro and micro-social contracts (Donaldson & Dunfee, 1999), which can be seen as the formal and informal rules governing the network of business relationships or guiding the behaviours of its participants. The quality and substance of these social contracts are influenced by the network's structure, which can facilitate or hinder the diffusion of prosocial norms and behaviours. The managerial utility approach conceptualizes prosocial behaviour as a manifestation of managerial preferences (Swanson, 2008), which are not entirely determined by organizational structures and resources but by individual discretion to express personal values, power, and influence within their network (Wood, 1991). Managers' prosocial behaviours are not isolated acts but are observed and potentially imitated by others in their network. This leads to a herding effect where prosocial actions become more common. To this end, prosocial behaviour is not merely the result of isolated individual or organizational decisions. It is a form of networked herding behaviour influenced by the complex interplay of social relationships, norms, and individual values within the corporate ecosystem.

In this paper, we present a theoretical framework that integrates the resource-based view of the firm, social network theory, and institutional theory to explore

the multifaceted nature of prosocial behaviours. In particular, our framework illuminates how entrepreneurial resources—both financial and human capital—alongside the interplay between social networks and the broader institutional landscape, serve as important drivers of prosocial practices. Our model, detailed in Figure 1, sets the stage for an empirical exploration of the dynamic relationships at play. In the next sub-sections, we develop the theoretical arguments hypothesizing that entrepreneurial resources, network properties, and institutional quality directly affect prosocial behaviours; we then propose that a substitution effect exists between social networks and institutions. As the institutional quality improves, the effect of network properties decreases.

Figure 1. Theoretical Framework.



2.1. Resource-Based View of Prosocial Behaviours

The entrepreneurial process is inherently fraught with uncertainty, and entrepreneurs leverage a trio of critical resources—financial, human, and social—to steer through this uncertainty, bolster their venture’s resilience, and achieve desirable economic outcomes (Meyskens et al., 2010; Santarelli & Tran, 2013; Saridakis et al., 2008, 2022). These resources are not merely instrumental; they empower entrepreneurs with the capabilities needed for a broad spectrum of activities, critically influencing their ability to identify and seize new entrepreneurial opportunities (Audretsch et al., 2011; Walker & Mercado, 2015). Such resource benefits are particularly pertinent for socially oriented entrepreneurs, who, despite facing tighter resource constraints, are committed to prosocial strategies for securing sustainable competitive advantage (Brieger & De Clercq, 2019).

The availability of financial resources plays a pivotal role. The rent-seeking approach posits that firms, especially smaller ones, are inclined to allocate their financial resources toward commercial opportunities that promise higher profitability. However, the good management practice approach highlights the willingness of those firms with a sustainability-oriented mindset to dedicate a portion of their financial resources towards creating social values (McGuire et al., 1988; Ullmann, 1985) and to invest in discretionary prosocial initiatives (Adams & Hardwick, 1998; Preston & O'bannon, 1997; Seifert et al., 2004). The unpredictable nature of the social-oriented entrepreneurial process often limits access to external resources (De Clercq et al., 2013), prompting a reliance on internally available resources (Meyskens et al., 2010). A slack resource can buffer firms against uncertainties and enable their prosocial engagements (Stevens et al., 2015). Building on these insights, we propose a direct and positive relationship between the financial resources at a firm's disposal and its engagement in prosocial behaviours. Hence:

Hypothesis 1a: Financial resources are positively associated with a firm's prosocial behaviours.

However, it is the human resources that lay the foundation for good management practices (Lans et al., 2014), playing a pivotal role in empowering entrepreneurs to recognize and harness the benefits of social initiatives (Estrin et al., 2016; Rauch et al., 2005). These resources are instrumental in stimulating prosocial behaviours (O'Sullivan et al., 2021), driving impactful corporate social responsibility efforts, and building a stronger corporate social performance profile (McWilliams & Siegel, 2001). Beyond enhancing financial performance (Santarelli & Tran, 2013), human resources are vital for successful stakeholder management (Florea et al., 2013; Rothenberg et al., 2017), addressing the increasing calls to tackle socially irresponsible behaviours and balance economic and social goals without compromise (Ru-Jen, 2011).

In an era marked by escalating social challenges, entrepreneurs who nurture strong, trust-based relationships⁴ with their stakeholders are better positioned to advance social missions (Barnett & Salomon, 2012; Rodgers et al., 2013). This capability is significantly enhanced by the entrepreneur's education and experience, which are crucially linked to his or her propensity for altruism and social engagement (Welzel, 2013). Education equips entrepreneurs with essential knowledge and skills to effectively tackle social issues, shaping ethical decision-making and influencing one's ethical stance (Furrer et al., 2010; Ng & Burke, 2010). Entrepreneurs' experience deepens their insight into how businesses can make meaningful societal contributions (Estrin et al., 2016; Pathak & Muralidharan, 2016). Research supports that entrepreneurs with comprehensive

4. This is consistent with the upper echelons theory (Hambrick & Mason, 1984). Being bounded by limited rationality, entrepreneurs realise and perceive the social and environmental challenges facing their firms through individualised lenses, formed by their values and prior experiences (Hambrick, 2007).

education and a wealth of diverse experience are more inclined to navigate the intersection of business success and societal benefit skilfully (Halme et al., 2012; Miller et al., 2012). Given these insights, we suggest that human resources—encompassing education and experience—are fundamentally linked to firms' adoption and efficacy of prosocial strategies:

Hypothesis 1b: *Human resources are positively associated with a firm's prosocial behaviours.*

2.2. Social Identity View of Prosocial Behaviours

In the realm of strategic management, financial performance is often depicted as a zero-sum game. In this view, market share is finite, and one company's gain in sales directly corresponds to a loss for its competitors (Short et al., 2016). Unlike financial performance, however, the market for socially responsible behaviours is not bound by such constraints. The absence of constraint diminishes the competition over resources dedicated to prosocial activities. As a result, firms are inclined to emulate the prosocial practices of their competitors, leading to a more uniform standard of social performance across industries (Matten & Moon, 2008). This setting encourages collaboration among firms within networks to enhance the efficacy of prosocial efforts (Short et al., 2016). Consequently, external industry-level factors may influence a firm's prosocial activities more than internal, firm-specific drivers (MouraLeite et al., 2012). Brass et al. (1998) pioneered investigating how social interactions influence individuals' perceptions and responses to unethical behaviours. Building on this foundation, subsequent research has extensively examined the link between social network characteristics and sustainability outcomes across various levels of analysis and network types (Gentina et al., 2016; Lee, 2013; Zuber, 2015). The social identity theory suggests that prosocial behaviours emerge from the interplay between entrepreneurial resources and 'the self-image one derives from membership in a social group' (Ko & Kim, 2020, p. 405). This social identity, however, is not static but evolves with the network setting (McNamara, 1997). The cumulative history of interactions within a network leaves an imprint on the evolution of social identity, constituting the building blocks of prosocial practices (Weber & Kratzer, 2013).

Network size—the number of direct connections a focal individual has within his/her social network—imposes a measurable effect on social value creation (Sharir & Lerner, 2006). This attribute reflects an individual's 'popularity, prominence, and/or power in a network' (Lee, 2013, p. 610), serving as an indicator of network centrality. People with extensive social ties enjoy higher visibility in their network and are pivotal in facilitating social exchanges and the flow of resources (Wasserman & Faust, 1994). This visibility not only positions them as ethical role models (Lee, 2013) but also pressures them to maintain ethical standards to preserve their relationships, credibility, and reputation (Brass et al., 1998; Li et al., 2023). In light of this, the high stakes involved in sustaining their central network position discourage unethical behaviour, as such actions

threaten the very foundation of their influence (Gentina et al., 2016; Lee, 2013). Drawing from this rationale, we propose the following hypothesis: Increasingly permeable firm boundaries push firms towards network-based production systems. Firms operate under implicit social contracts that hold them accountable to a wide array of stakeholders to mitigate adverse societal impacts (Enderwick, 2018). Confronted with the challenge of addressing diverse and sometimes conflicting stakeholder demands, firms are increasingly integrating into network systems, enabling them to tap into new information, acquire tacit knowledge, and gain access to essential resources (Greve & Salaff, 2003). Through these networks, firms obtain support to craft sustainable and innovative solutions (Kimmel & Hull, 2012) and develop sustainability-oriented business models (Schaltegger et al., 2016). They may also motivate new consumers, stakeholders, and wider society to more impactful social missions (Selsky & Parker, 2005). Where ‘an absence of market-supporting institutions increases transaction costs and limits access to resources’ (Ghoul et al., 2017, p. 360), the role of social networks and their structural characteristics are even more critical in achieving tangible social values (Mair & Noboa, 2006). Our analysis particularly highlights the influence of network size and diversity in this context.

Hypothesis 2a: *Network size is positively associated with a firm’s prosocial behaviours.*

Hypothesis 2b: *Network diversity is positively associated with a firm’s prosocial behaviours.* Network diversity, emphasizing the heterogeneity within a network, is often highlighted as more critical to firm development than mere network size (Lechner et al., 2006; Weber & Kratzer, 2013). Such diversity acts as a bridge across structural holes in social structures, offering a pathway to a broader spectrum of resources and insights (Burt, 2004). A large network of contacts alone cannot provide such a spectrum. Particularly, when tackling multifaceted sustainability challenges that the resources in one sector are insufficient (Kolk, 2013), the reliance on diverse, cross-sector collaborations becomes essential, allowing social entrepreneurs to secure the necessary resources and information for effective prosocial initiatives (Quélin et al., 2017). Heterogeneity in networks and more exposure to diverse logics and values facilitate the creation of stronger social values (Austin et al., 2006; Weber & Kratzer, 2013) through the acquisition of a diverse range of symbolic and human resources and legitimacy (Kivleniece & Quelin, 2012; Saz-Carranza & Longo, 2012). However, while network diversity fosters learning and innovation from the interaction of divergent spheres of activities (Saz-Carranza & Longo, 2012), these benefits come with their challenges, notably the potential dilution of partnership unity, leading to what has been termed as “unity-diversity tension” (Cornelissen & Werner, 2014; Hahn et al., 2015; Saz-Carranza & Longo, 2012). In this sense, successful collaboration within diverse networks requires a delicate balance: sufficient unity to align on common objectives (Liu et al., 2021) and maintain trust, coupled with enough diversity to drive innovation and learning

(Ashraf et al., 2017; Hahn & Pinkse, 2014). Achieving this equilibrium is essential for fostering both effective collaboration and the innovative solutions necessary to meet complex challenges. Based on the above discussions, we propose the following hypothesis:

2.3. Institution-based View of Prosocial Behaviours

The institutional theory sheds light on how contextual factors influence entrepreneurial behaviours and outcomes, highlighting the significant role that institutions play in shaping the economic, political, and social landscapes (Bruton et al., 2010; Maksimov et al., 2017; Tolbert et al., 2011; Tran, 2019). Defined as 'humanly devised constraints that structure political, economic and social interaction' (North, 1990, p. 3), institutions create and establish the rules of the game and the constraints and incentives that govern the exchanges between individuals (North, 1997). The quality of the institution within which 'an activity is performed often determines whether [the] activity is productive, unproductive or destructive' (Douhan & Henrekson, 2010, p. 630). The institutional environment affects entrepreneurs' strategic decisions and resource allocation and shapes their motivations and the overall perception of entrepreneurship value (McMullen et al., 2008). Entrepreneurs are, thus, the product of their environment, embodying the notion that 'tough backgrounds can bring out the good in a person as well as the bad' (D. Miller, 2016, p. 21).

Entrepreneurial engagement in prosocial practices is deeply rooted in institutional frameworks (De Clercq & Voronov, 2011; Risi et al., 2023), as these practices are intrinsically linked to the surrounding institutional environment (Kramer & Porter, 2011; Wang et al., 2016). A high-quality institutional setting not only stimulates positive changes in individual and social identities toward more responsible corporate behaviours (Spence et al., 2011) but also amplifies commitment to prosocial actions (Kieffhaber et al., 2020; Reay et al., 2017). The values that are cultivated in institutional environments affect the strategies of diffusion and promotion of prosocial behaviour (Risi et al., 2023).

Hypothesis 3: *The quality of formal institutions is positively associated with a firm's prosocial behaviours.* In emerging markets, where governments prioritize rapid economic catch-up and technological leapfrogging, the emphasis on pro-market reforms often overshadows the establishment of frameworks that support or mandate prosocial engagement. This situation results in a paucity of institutional and legal incentives for prosocial practices, leaving firms with minimal external pressure to commit to socially responsible behaviours (Lim & Tsutsui, 2012). Consequently, the availability of financial resources in these contexts does not drive prosocial investments as one might expect, as suggested by the slack resource theory. Entrepreneurs, faced with a fragile institutional framework, tend to overlook prosocial objectives in their strategic planning (De Clercq et al., 2018). Ioannou & Serafeim (2012) suggest that in countries characterized by institutional voids and intense competition, firms operate on

‘razor-thin profit margins,’ where survival becomes a primary concern, thereby limiting their capacity to contribute to or improve their corporate social performance (Ioannou & Serafeim, 2012). This fragile institutional context not only discourages active social engagement but also leads firms to resort to unethical practices, including bribery and corruption, to evade prosocial responsibilities. Drawing from these insights, we propose that:

The institutional setting is composed of both formal (regulative) and informal (normative and cognitive) institutions, distinguishing between officially codified regulations and the unwritten rules that govern common practices (North, 1990; Scott, 2008).⁵ A notable shortcoming of the literature on the interplay between institutions and entrepreneurship is the tendency to view institutions as static and external entities, overlooking the dynamic evolution that occurs within them, especially in transition economies (Carbonara et al., 2018; Chowdhury et al., 2019; Smallbone & Welter, 2012; Tran, 2019). This perspective fails to account for the endogenous nature of the relationship between institutions and entrepreneurs, where entrepreneurial outcomes can significantly influence institutional frameworks (Przeworski, 2004). One of the reasons for this endogeneity is the challenge of measuring the effect of (invisible) informal institutions and their interaction with formal institutions. In an institutionally constrained context, informal social networks often serve to fill the gap, acting as a ‘compensation for deficiencies for formal institutions’ (Shirokova & McDougall-Covin, 2012, p. 178).

Social capital, derived from interpersonal networks, often compensates for the absence or inadequacy of formal institutional frameworks. ‘[T]he marginal effect of social capital (in the form of interpersonal trust) decreases with institutional strength’ (Ahlerup et al., 2009, p. 1). The social capital emanating from effective social networks contributes to the building of effective and accountable institutions (Pretty & Ward, 2001). Networks centred around sustainability objectives can, therefore, cultivate a favourable institutional environment conducive to widespread shifts towards prosocial practices in both mass-market and public perceptions (Doblinger et al., 2016). Such networks develop the next generation of sustainability-focused entrepreneurs (Pacheco et al., 2010) and promote the adoption of prosocial practices through social learning mechanisms (Pinkse & Groot, 2015).

This phenomenon of social capital serving as a stand-in for formal institutions becomes particularly evident in transition economies, where institutional voids are prevalent. That is, formal institutional arrangements that support markets are absent, weak, or fail to accomplish the role expected of them (Doh et al., 2017; Mair & Marti, 2009). Entrepreneurs operating within such

5. A similar way to categorise the institutional environment is to look into its tangible (or soft) versus intangible (or hard) characteristics. Intangible institutions include laws, rules, regulations, and instructions, while tangible institutions include habits, routines, established practices, traditions, ways of conduct, norms, and expectations (North, 1990).

contexts are prone to rely on their social networks as a strategy to adapt, navigate through government interference, and fill institutional voids (La Porta & Shleifer, 2014; Tran, 2019). The social network acts at an intersocial level, interactively engaging multiple agents and entities that form prosocial behaviour (Labroo et al., 2023).

Institutions play a dual role in the narrative of post-socialist countries' struggles and their path to transition and development (Su et al., 2017). As these countries progress and their nascent formal institutions evolve and strengthen, the impact of social networks on fostering prosocial practices diminishes (Chowdhury et al., 2019). Improved institutional quality reduces entrepreneurs' dependence on their affiliations to social networks for gaining legitimacy and assessing critical resources (Lepoutre et al., 2013). In essence, as markets experience economic reforms and institutional frameworks are fortified, there is a notable transition from reliance on social networks to formal institutions. In line with these arguments, we propose the following hypothesis:

Hypothesis 4: *There is a substitution effect between social networks and formal institutions on a firm's prosocial behaviours.*

3. Data and Construction of Measures

Vietnam initiated its transition process in 1986, moving from a highly centralized socialist economy to a 'socialist-oriented market economy' under a one-party political system. After it joined the World Trade Organization in 2006, Vietnam's devotion to a market-oriented economy and an economic catch-up agenda has allowed its economy to become increasingly integrated into the global market. For the last three decades, Vietnam has signposted profit-maximization goals, paving the way to a strong private sector through the privatization of a large number of state-owned firms (Tran et al., 2022). This massive economic growth has been fuelled by an extensive exploitation of the country's natural resources, causing it to experience severe social problems and environmental degradation, such as pollution from industrial waste, deforestation, growing inequality, inflation, land use, and unemployment (World Bank, 2016). Many of these problems remain unaddressed and unremedied because of the economic interests of developing an export-oriented market economy.

It can be contended that Vietnam lacks a robust legal framework necessary to safeguard the social and natural environment, impose penalties on offenders, and increase the deterrence costs associated with non-compliance. Vietnam has introduced many pro-market changes in political institutions, with the proviso that the changes do not diminish the Communist Party's supremacy as the backbone of the transition and the leading engine of the economy (Tran et al., 2022). The state, therefore, remains the dominant stakeholder. Whether a specific social/environmental issue receives due attention largely depends on the state's

economic and political agenda. Because of weak governance structures, underdeveloped prosocial institutional standards, and severe financial constraints, Vietnamese firms often do not perceive social and environmental responsibilities as essential components of their broader corporate objectives, which prioritize maximizing shareholder value. Although the majority of SMEs in Vietnam are driven by survival and necessity, focusing primarily on economic gains rather than social and environmental sustainability, their inherent flexibility and proximity to local communities may afford them a unique advantage in identifying and adopting sustainable business practices. In these contexts, their founders' characteristics and social commitments potentially play a crucial role in achieving social and environmental goals.

To examine our hypotheses, we use a unique 8-year unbalanced panel dataset that provides comprehensive information on entrepreneurs and their SMEs from 2008 to 2015. The dataset is extracted from the three waves of the manufacturing SME survey (carried out in 2009, 2011, 2013, and 2015, collecting information of the year of survey and the previous year) conducted by a collaboration of the Central Institute for Economics Management (CIEM Vietnam), the Development Economic Research Group (DERG Copenhagen), and United Nations University (UNU-WIDER). Each wave collects balance sheet information for the current and previous year. Our sample contains around 2,400 unique firms. The second dataset employed for our research is the Provincial Competitiveness Index (PCI) aggregate database on the quality of the local governance of all 63 Vietnamese provinces from 2006 onwards. The PCI is a product of a collaboration between the Vietnam Chamber of Commerce and the U.S. Agency for International Development. The PCI is a provincial institutional index, a weighted average of the 10 sub-indices, each measuring a different aspect of local formal or informal governance. They are (i) market entry costs; (ii) land access and time; (iii) transparency; (iv) time costs (dealing with bureaucracy); (v) informal charges (corruption); (vi) policy bias (preferential treatment for state-owned firms); (vii) proactivity of provincial leadership; (viii) business support services; (ix) labour training; and (x) legal institutions.⁶

3.1. Variables Used in the Regression Models

3.1.1. The Dependent Variables: Proxies of Corporate Social Performance

We assess firms' prosocial behaviours in two conceptually distinct dimensions: the social and environmental dimension, and the people dimension (Dhaliwal et al., 2012; Jayachandran et al., 2013; Luo et al., 2015; Peiris & Evans, 2010). Our analyses take advantage of the richness of data on various objective measures for these two dimensions.

For the social and environmental dimension, we adopt two variables. The first is *product quality international standards*. This is captured by a binary

6. Data on the PCI and information about the methodology and reports can be obtained from <https://pcivietnam.vn/en/>.

variable, which equals 1 if the firm possesses a certification of product quality required by consumers, and 0 otherwise. This construct measures the extent to which the development and marketing of products or services are consistent with the firm's social responsibility obligations. The second, *environmental performance*, is reflected by a binary variable, which equals 1 if the firm possesses the "Certificate for registration of satisfaction of environmental standards" (ESC), and 0 otherwise. The government issues the ESC once the Ministry of Natural Resources & Environment has subjected the firm to intensive assessment and given its approval. The certificate confirms that a firm is committed to complying with specified environmental protection requirements. The dimension of people relates to the social contributions made by firms to communities. This is indicated by the offer of *leave benefits* to full-time employees, such as sick, annual, or maternity leave. Our combination of measures allows for an objective evaluation of firms' social performance because certification and employee benefits represent a substantive commitment of resources to prosocial practices.

3.1.2. The Key Independent Variables

In our empirical model, we incorporate variables that measure entrepreneurial resources, the structural properties of social networks, and institutional quality. These variables enable us to test the hypotheses presented above. We explain how we constructed these measures below.

Entrepreneurial resources. These resources are classified into two categories: financial resources and human resources. Unlike state-owned firms that can easily obtain financial support from government or non-governmental organizations to roll out their social and environmental initiatives, private SMEs in transition economies mostly finance these activities from income or retained earnings. Financial resources are measured by firms' one-year lagged revenue (natural logarithm value). Human resources are indicated by two variables: (i) *education*, a binary variable equalling 1 if the entrepreneur has an advanced college or university education, and 0 otherwise; and (ii) *experience*, captured by prior self-employment. This equals 1 if the entrepreneur possesses such experience and 0 otherwise.

Structural properties of social networks. These variables are captured by the size and diversity of the entrepreneur's social networks. *Network size* is measured by the transformed ratio of the total number of people with whom the entrepreneur currently has regular contact (at least once every 3 months) and are considered useful for operation of the business, over the total number of employees (labour size) of the firm. We included firm size in the denominator to account for the fact that larger firms may have a larger number of contacts within their networks. Inverse hyperbolic sign transformation is used to reduce the skewness of this measure and keep the zeros in the model. *Network diversity* is

measured by the Shannon entropy index (Shannon, 1948), a diversity index that is popular in ecological studies. The index calculates

$$ND = -\sum_{i=1}^k p_i \ln(p_i);$$

where *ND* is network diversity, p_i is the proportion of contacts in the i^{th} category of contacts, and k is the number of contact categories. We have five categories of contacts: (i) businesses from the same sector (producing the same products), (ii) businesses from a different sector (producing different products), (iii) bank officials (including formal and informal creditors), (iv) politicians and civil servants, and (v) others.⁷ When all categories have an equal number of contacts, all p_i values equal $1/5$, and the Shannon index takes the value $\ln(5) = 1.61$. The more unequal the abundance of the categories, the larger the weighted geometric mean of the p_i values, and the smaller the corresponding Shannon index. If almost all network contacts are concentrated in one category, the Shannon entropy approaches zero. In other words, we have $0 \leq ND \leq 1.61$.

Institutional quality. Following Tran's (2019) 5-step approach, we conduct Confirmatory Factor Analysis to analyse patterns of correlation among ten institutional components to infer their weight loadings on a new latent 'institutional quality' variable (i.e., its IQ index). This new variable provides the best approximation of weight loadings from observed factors. Generally, the higher the IQ index of a province, the higher the quality of the institution in that province. High-quality institutions are more market-based. They have lower institutional barriers to entrepreneurial activities (e.g., lower levels of market entry costs, fewer informal charges, less bureaucracy, less policy bias) and high levels of transparency, proactivity of provincial leadership, business support services, labour training, land access, and legal institutions.

3.1.3. Control Variables

Prompted by our extensive review of existing studies, we control for relevant individual-level and firm-level characteristics. At the individual level, we include gender (Yamini et al., 2022). At the firm level, we include firm size measured by the natural logarithm of the total labour force. We also use binary variables (yes=1; 0 otherwise) to indicate if the firm is involved in exporting and product diversification (positively related to the prosocial practices of firms according to Kang, 2013), and if the firm is a household-owned business.

Descriptive statistics are presented in Table 1. For 2015, only about 6% of the surveyed businesses have product certificates, around 7.33% have an ESC certificate, and almost 39% of the businesses offer some form of leave to their employees. In the same year, around 31% of the entrepreneurs or managers are women, 25% have entrepreneurial experience, and around 15% have higher education.

7. The questionnaire does not collect information on who is included in the category of "others".

Table 1. Descriptive statistics for survey year 2015

Panel A: Continuous variables				
Variable	Mean	Stand. Dev.	Min	Max
Firm size (natural log number of employees)	1.383	0.956	0	5.971
Normal log revenue (Million Dong)	12.71	1.399	9.661	17.879
Shannon's network diversity	0.827	0.346	0	1.58
HIS network size	2.166	0.866	0.041	5.201
Institutional quality	0.214	0.274	-0.218	0.573
Panel B: Binary variables				
Variable	Percentage			
Product quality certificate	6.16			
Leave benefits	38.92			
ESC certificate	7.33			
Female	30.67			
Higher education	14.66			
Household	73.89			
Export	3.89			
Diversification	10.78			
Self-employed experience	24.75			

4. Estimation Results

Panel-data probit model regressions estimate the models since all our dependent variables are binary. The variance inflation factor (VIF) values, ranging from 1.02 to 5.04, are well below the cut-off point 10, suggesting that multicollinearity is not an issue here. Our baseline (random effects) model can be written as:

$$\begin{aligned}
 CSR_{i,t}^* = & \beta_1 Revenue_{i,t-1} + \beta_2 Education_{i,t} + \beta_3 SEexp_{i,t} + \beta_4 Netsize_{i,t} + \beta_5 Netdiv_{i,t} + \\
 & \beta_6 IQ_{i,t} + \beta_7 Netsize_{i,t} * IQ_{i,t} + \beta_8 Netdiv_{i,t} * IQ_{i,t} + \beta_9 X_{i,t} + \gamma_i + u_{i,t}
 \end{aligned} \quad (1)$$

with $CSR_{i,t}^* = 1$ if $CSR_{i,t}^* > 0$, and 0 otherwise; $Revenue_{i,t-1}$ is the one-year lagged natural logarithm of firm revenue, $Education_{i,t}$ is the level of education of the entrepreneur of firm at time t; $SEexp_{i,t}$ is the years of entrepreneurial experience of the entrepreneur of firm at time t, and $Netdiv_{i,t}$ are network size and diversity of firm at time t, $IQ_{i,t}$ is the institutional quality variable of the province of firm at time t and X is a matrix of control variables. The models also control for the year. In a robustness check, we also control for the main activity of the business, captured by a series of sector dummy variables. We first estimated the model using a panel-data probit model with only

entrepreneurial resources and the control variables in the specification. We then extend the model by incorporating the proxies for the structural properties of social networks and the institutional quality index. We also estimate the model with interaction terms between the quality index, network size, and network diversity variables to examine the possible moderation effects.

Table 2 presents the results of estimating prosocial behaviours as a function of entrepreneurial resources, network properties, institutional quality, and control variables. At the micro level, in line with the slack resource theory, we consistently find a significant and positive association between financial resources and prosocial behaviours. Entrepreneurs can allocate these slack resources to their social investments when financial resources are in surplus. This finding supports **Hypothesis 1a**.

For Hypothesis 2, we examined the positive effect of network size (Hypothesis 2a) and network diversity (Hypothesis 2b) on prosocial behaviours. We hypothesized that entrepreneurs possessing larger networks (more social ties) could reach out to more people and have access to a broader range of information and innovativeness to gain social support to pursue environmental goals (that is, obtaining the ESC). We found, however, the opposite to be the case, which does not support **Hypothesis 2a**.⁸ Network size is statistically significant and negatively related to the probability of obtaining ESC certificates. Network diversity is, however, positively and significantly related to product and people dimensions. This indicates that those embedded in more diverse networks can develop heterogeneous social capital to address the social and people dimensions of prosocial practices. From this perspective, we found partial support for **Hypothesis 2b**. In the discussion sub-section, we provide some possible explanations for these findings. With respect to human resources, highly educated entrepreneurs have a higher propensity to commit to improving their employees' social well-being in the workplace. Self-employed experience also stimulates entrepreneurs to improve their employees' well-being and obtain an ESC certificate but deters them from investing in product certifications. To explain this finding, we draw a parallel from the context of Quality Management Systems (QMS) in Vietnam. The use of QMS in Vietnam mainly helps local governments and state administrative agencies to maintain a transparent and sustainable public service, such as 'a harmonized, one-stop-shop approach to government regulations' (Lewis, 2021). For private firms, however, there has been meagre provision of training to incorporate QMS in their business activities, and there is no regulatory prompting to do so. From the demand side, customers are unaware of the benefits of buying QMS-accredited products. Given the high cost of obtaining a QMS certificate and the complicated application procedure, it is unsurprising that entrepreneurs with a prior history of entrepreneurship find

8. We also included a squared term in the models. For the 'leave benefits' model only, we find evidence of a potential non-linear relationship (i.e., positive linear effect of network size and a negative squared term).

engaging with the QMS process unnecessary. The pursuit of certification can be considered a troublesome and costly initiative (Pollack et al., 2021). In conclusion, the mixed effects of human resource variables do not allow us to claim support for **Hypothesis 1b**.

With respect to the direct and moderation effect of institutional quality on prosocial behaviours, our findings consistently suggest that institutional quality is significantly and positively associated with sustainability outcomes, lending support to **Hypothesis 3**. It can be argued that setting social and environmental objectives is institutionally ingrained. Therefore, the quality of local institutions plays a pivotal role in determining how an entrepreneur's social identity encourages their commitment to prosocial behaviours. Enhanced local governance could serve as a catalyst for businesses in transition economies to embed social and environmental objectives within their operational strategies and performance targets. Good quality local governance is characterized by a transparent regulatory environment in which there are minimal informal charges, bureaucracy, and policy biases towards state or connected firms, with proactive and creative provincial leadership, and developed business support services (Tran, 2019).⁹

Interestingly and contrary to **Hypothesis 4**, the statistically significant interaction terms between network size and institutional quality in Models 3 and 9 in Table 2 indicate a complementary effect on prosocial behaviours. The interaction terms between network size and institutions are positive and statistically significant in the product certificate and people dimensions, suggesting that the combination of a broader network and better-quality institutions positively affects the probability of obtaining a product certificate or improving employees' well-being. As institutional quality increases and entrepreneurs are encouraged to join more industry groups and formal trade associations in which they can network with other industry players, they can support each other in enhancing industry competitiveness and prosocial practices. This finding is also consistent with the insignificant or negative direct effect of network size on prosocial behaviours (Models 2, 5, and 8 in Table 2). In other words, network size is only beneficial for prosocial behaviours if it is supported by high-quality institutions. Arguably, institutions often function as an enabling environment, and the larger the network, the greater the number of people who can help capitalize on that environment. For instance, having a larger network of partners in the same industry allows individuals to enhance economies of scale and productivity through collaborations. A large network also increases the potential to leverage institutional resources, like government grants or regulatory support, and to serve more stable markets provided by high-quality institutions.

9. As a robustness check, we performed the analysis with standard errors clustered at province level. Firms that changed their province in the analysis were excluded. The results for the variables of interest (in particular the institutional quality variable – the only variable measured at province level) remained largely unchanged.

Hypothesis 4 also suggests a substitution effect between institutional quality and network diversity which is partially supported. The interaction term between the institutional quality variable and network diversity is negative and statistically significant in the product certificate and people dimensions, thereby offering partial support for **Hypothesis 4**. Arguably, in the context of Vietnam, high institutional quality likely supplies the same benefits that diverse networks typically offer, such as access to varied information and resources through well-managed systems. As a result, adding diversity to social affiliations may not yield much additional benefit when institutional frameworks are already effective. If firms have a diverse network, they can compensate for institutional voids by tapping into a wide range of resources, advice, and opportunities from different sources within their network. For example, having connections across various sectors or geographies can provide alternative resources and support that firms can't access through formal institutions. Additionally, diverse networks provide access to informal mechanisms to support firms' growth, including alternative financing or sourcing inputs through non-traditional channels, as well as access to a wider array of ideas, opportunities, and knowledge from diverse network members, enabling firms to innovate to reduce their dependence on the quality of formal institutions. Conversely, the interaction term between institutional quality and network diversity is positive and statistically significant in the environmental dimension (the significance level is at 10%), suggesting that institutional quality and network diversity impact environmental outcomes in ways that are less overlapping compared to people and product certificate outcomes. For instance, while institutional quality can establish a solid legal framework for protecting the environment, its effect can be enriched by a more diverse network.

With respect to control variables, some noteworthy findings include: (i) size is positively and statistically significantly associated with all dimensions; (ii) contrary to previous studies (Bateman & Valentine, 2010; Isidro & Sobral, 2015), women show a lower probability of obtaining certificates or acting for the well-being of their employees, and (iii) exporting firms are found to show higher probabilities of contributing to all three dimensions of prosocial behaviours; Finally, (iv), household-owned businesses show a negative and significant relationship with the probability of caring about their social responsibilities compared with other legal ownership types.¹⁰

10. As a robustness check, we have included a series of dummies controlling for the main activity of the establishments. The results are qualitatively the same. We also replaced the revenue variable with lagged gross profit to show the availability of resources after costs incurred and the results are unchanged. However, gross profit is not a significant variable.

Table 2. The effect of entrepreneurial resources, social networks, and institutions on Corporate Social Performance.

Categories of variables	Variables	Product Quality Certification			Environmental Standard Certificate			Leave Benefits		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Entrepreneurial resources	Revenue _{t-1}	0.1360*** (0.05078)	0.1245** (0.05034)	0.1237** (0.05307)	0.1062*** (0.02647)	0.08744*** (0.02889)	0.09035*** (0.02887)	0.05836*** (0.01785)	0.05502*** (0.02097)	0.04953** (0.02095)
	Education	-0.07024 (0.1485)	-0.1013 (0.151)	-0.07128 (0.1589)	0.2294** (0.1098)	0.05697 (0.1349)	0.05403 (0.1348)	0.3245*** (0.07098)	0.3820*** (0.09306)	0.3997*** (0.09402)
	Self-employed experience	-0.3350** (0.1488)	-0.3995*** (0.1525)	-0.4253*** (0.1625)	0.1977** (0.09261)	0.2196* (0.1233)	0.2042* (0.1239)	0.1346** (0.05268)	0.1129 (0.07283)	0.1270* (0.07336)
	Network size		0.09336 (0.08689)	-0.3208** (0.1251)		-0.3337*** (0.0752)	-0.2683** (0.1052)		0.02844 (0.04174)	-0.00677 (0.05277)
	Network diversity			0.3281** (0.1487)	0.6733*** (0.2557)	0.05431 (0.1257)	-0.1793 (0.1904)		0.3838*** (0.07153)	1.0127*** (0.1017)
	Self-employed experience									
Social network properties	Network size		0.09336 (0.08689)	-0.3208** (0.1251)		-0.3337*** (0.0752)	-0.2683** (0.1052)		0.02844 (0.04174)	-0.00677 (0.05277)
	Network diversity			0.3281** (0.1487)	0.6733*** (0.2557)	0.05431 (0.1257)	-0.1793 (0.1904)		0.3838*** (0.07153)	1.0127*** (0.1017)
Regional institution	Institutional quality (IQ)		0.9939*** (0.3035)	-0.3383 (0.7971)		1.4380*** (0.3015)	1.1860* (0.6483)		1.7925*** (0.1555)	3.3950*** (0.4087)
	IQ * network size			1.5198*** (0.2861)			-0.2552 (0.2393)			0.3381** (0.1376)
Institution * Network properties	IQ * network size			1.5198*** (0.2861)			-0.2552 (0.2393)			0.3381** (0.1376)
	IQ * network diversity			-1.2908** (0.6085)			0.8052* (0.462)			-2.6063*** (0.2782)
Control Variable	Firm size	0.3842*** (0.09101)	0.4201*** (0.1022)	0.4116*** (0.1086)	0.4702*** (0.06278)	0.3778*** (0.0833)	0.3816*** (0.08347)	0.7687*** (0.03886)	0.8887*** (0.05545)	0.9003*** (0.05579)
	Household	-0.8604*** (0.1923)	-0.8912*** (0.196)	-0.9658*** (0.2236)	-1.0088*** (0.1413)	-1.1965*** (0.1698)	-1.2077*** (0.1711)	-0.8390*** (0.07496)	-0.8960*** (0.09639)	-0.8775*** (0.09685)
	Export	1.5535*** (0.2152)	1.5672*** (0.2188)	1.7320*** (0.2421)	0.6158*** (0.2175)	0.7358*** (0.26)	0.7096*** (0.2603)	0.1412 (0.1396)	0.3114* (0.1759)	0.3252* (0.1767)
	Product Diversification	-0.2033 (0.1869)	-0.1581 (0.1911)	-0.2054 (0.2026)	-0.3861*** (0.1358)	-0.3415** (0.167)	-0.3242* (0.1676)	0.08991 (0.06947)	0.034 (0.09348)	-0.02457 (0.09482)
	Gender (female)	-0.3349** (0.1309)	-0.3123** (0.1329)	-0.3664** (0.1429)	-0.2178** (0.09327)	-0.2958*** (0.1134)	-0.2851** (0.1138)	-0.1435*** (0.05194)	-0.07104 (0.06803)	-0.07195 (0.06864)
	Year dummies	YES	YES	YES	YES	YES	YES	YES	YES	YES
	Constant	-4.8341*** (0.7078)	-5.5079*** (0.7761)	-5.2480*** (0.8815)	-5.1361*** (0.3903)	-4.5659*** (0.4935)	-4.5041*** (0.5336)	-1.6307*** (0.2373)	-2.6261*** (0.3168)	-3.0891*** (0.3365)
	Observations	8,781	8,781	8,781	10,637	8,781	8,781	10,638	8,781	8,781
	Number of unique firms	2,463	2,463	2,463	2,936	2,463	2,463	2,936	2,463	2,463

Note: *: significant at 10% level; **: significant at 5% level; ***: significant at 1% level. Standard errors in parentheses.

4.1. Sub-sample Estimates

We also estimate the models by splitting our sample by gender (male and female) and firm size (small and medium-sized).¹¹ The results are available in Table A1 in the Appendix. Our results suggest that the financial resources variable is an important predictor for small firms but not for those of medium size. Similarly, financial resources are found to be more related to female (vs. male) initiatives towards prosocial behaviour. Turning to education, the results produced by

11. To split firms by size, we first calculated the average firm size over the study period. We then grouped the firms based on their average size. Firms are defined as small if they have on average less than 50 employees and are medium-sized if they have more than 50 but less than 250 employees.

gender and firm size are generally quite mixed. However, we find some strong evidence that, for the ‘leave benefits’ model, education has a positive effect for both genders (although the coefficient’s magnitude is greater for females than males). Interestingly, self-employment experience appears to affect male and female prosocial behaviour differently. In particular, we find a positive effect for female self-employment experience (especially for ESC) and a negative effect for male self-employment experience (for product quality). The institutional quality variable is found to have a positive effect across the different firm sizes and gender groups, although the magnitude of the coefficients varies. Network size is found to carry a negative and statistically significant sign in some estimates by firm size-class (in particular ESC), whereas the estimates by gender reveal a more conflicting picture. Finally, we find network diversity to affect prosocial behaviour positively, but again, the effects vary in magnitude between gender and firm size estimates.

5. Discussion of Findings and Implications

Prior studies indicate that entrepreneurs in emerging markets often encounter a fundamental conflict between pursuing profitability and establishing non-financial objectives focused on societal and environmental considerations. That incompatibility is fuelled by the limited support formal institutions offer for adopting prosocial practices (De Clercq et al., 2018). In such circumstances, entrepreneurs are more likely to concentrate their efforts on financial returns rather than on safeguarding social or environmental values, which they see as falling within the ambit of the government. However, this division of labour is impossible in transition economies, where weak institutional conditions nurture a corrupt government, and the free-market system is insufficiently developed to be able to operate as an “invisible hand”. For the past two decades, many transition economies have realized they need to transition into sustainable economies because the price they are paying for catching up with the economic and technological progress of the advanced world is unsustainable. The bureaucratic, corrupt, and inflexible nature of transition governments, however, often renders the implementation of sustainability-focused policies ineffective (Nga & Shamuganathan, 2010).

In this paper, drawing upon the resource-based view, social identity, and institutional theories, we have explained entrepreneurs’ prosocial behaviours as a function of their entrepreneurial resources, their social networks, and the institutional context. To capture the performance of entrepreneurs’ prosocial activities, we measured firms’ prosocial behaviours in three manifestations: product quality, environmental standard, and employee benefit. With respect to entrepreneurial resources, financial resources significantly stimulate firms’ prosocial behaviours. However, human resources produce a mixed impact. Education is an important determinant that holistically enhances prosocial

practices (especially employee benefits), but self-employed and managerial experience encourages entrepreneurs to emphasize selected dimensions of prosocial practices. The quality of local institutions not only directly stimulates entrepreneurs to engage in social and environmental practices and behaviours, but also moderates the relationship between network effects and prosocial behaviours. We postulated that in the presence of weak government and poor institutions, social interactions can be a substitute for malfunctioning formal institutions. We found this to be true in the context of network diversity. That is, in product quality and people outcomes, a diverse network can substitute the void that government did not fill out and promote prosocial behaviours. In these cases, in transitional economies, government interventions are not the sole avenue for tackling environmental and societal issues and social networks can also provide a vital reservoir of resources and expertise, fostering the embrace of practices driven by more than just profit. Contrary to our hypothesis, we found a complementary moderation effect of institutional quality in relation to network size. In this case, prosocial behaviours of small business owners increasingly benefit from larger networks when the quality of institutions increases.

5.1. How Can the Results Be Applied in Practice?

Being able to identify and promote an action agenda that comprehensively stimulates prosocial practices has important policy implications for stakeholders in emerging/transition countries at various levels: policymakers, industry practitioners, organizations, entrepreneurs, and the general public (cf. Pfeffer, 2010). Despite a growing awareness among entrepreneurs about the importance of adopting practices that transcend profit maximization, the proportion of small business owners who are making a significant impact on sustainable development remains inadequate.

An important policy implication is the role of local institutional quality as a breeding ground for social and environmental practices and behaviours (Roxas & Coetzer, 2012). Social interactions, although beneficial, are typically informal, implicit, and hard to manage (Gupta et al., 2018). Therefore, a long-term and more sustainable policy must take a persistent restructuring approach to local institutions. As institutions are improved, the effect of network diversity diminishes, paving the way for the advanced market system's invisible hand to bring sustainability's intended market benefits. The improvement of institutions also increases the effectiveness of larger networks. Better quality institutions alleviate the uncertainties around trusting one's network (Bastian & Zali, 2016), and therefore, provide an opportunity for firms to benefit more from their contacts. However, our research highlights a mechanism that can alleviate the lack of formal institutions or pave the way for the evolution of such prosocial supporting institutions. The results substantiate the notion that entrepreneurs can successfully navigate the perceived dichotomy between prosocial behaviours and profitability through diverse networking. Hence, our findings can inspire a

paradigm shift towards more sustainable entrepreneurship through social networks, especially in institutional settings that present significant obstacles to prosocial behaviours.

Lastly, we acknowledge that our findings contrast with findings from developed countries. Therefore, we suggest that researchers develop indigenous theories that suit the local context rather than apply established theories from the West to examine the key issues facing businesses in a distinctive transitional or emerging environment. This approach will make scholarship more diverse. Social networks have the potential to stimulate prosocial practices, a mechanism policymakers and business associations could leverage to realize significant benefits. For example, organizing networking events will stimulate extensive knowledge exchanges between entrepreneurs with diverse stakeholders and thereby increase their ability to realize and exploit any sustainable opportunities that later arise. Through such networking activities, firms can gain critical insight into exploiting network benefits to overcome the institutional barriers to their social and environmental goals. These insights should also help entrepreneurs expand their social interactions (which can substitute for institutional context) to foster macro-level changes in public opinion towards sustainable values or develop the next generation of social entrepreneurs through social learning. Such network benefits are especially important to small private firms in a transition economic setting since their lack of legitimacy means significant financial and political constraints beset them.

6. Conclusions

This paper has explored the dynamics of prosocial behaviours among entrepreneurs and SMEs within a transition economy (Vietnam), illustrating how these behaviours are influenced by the interplay of entrepreneurial resources, social networks, and institutional context. Our findings reveal that effective social networks and strategic resource utilization enable entrepreneurs to integrate prosocial practices with business operations, despite often lacking institutional support. Significantly, our research highlights the importance of network diversity for promoting knowledge exchange and supporting sustainable practices among entrepreneurs. This insight reveals a critical avenue for policymakers and business associations: facilitating networking opportunities that could lead to enhanced knowledge sharing and commitment to social responsibilities. Additionally, enhancing local institutional quality can reinforce the effectiveness of social networks, allowing the market to more effectively encourage social practices. However, our analysis is bound by its regional focus and may not fully encapsulate global entrepreneurial environments. Future research should develop context-specific theories and explore more deeply the crucial roles of human and financial resources in driving prosocial behaviours.

Scholars should explore how social networks not only compensate for inadequate formal institutions but also act as catalysts for widespread systemic change towards sustainable entrepreneurship in diverse settings.

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Appendix: Additional estimation results

Table A1. Sub-sample estimates by gender and firm size.

	Product Quality Certification				Environmental Standard Certificate				Leave Benefits			
	Small	Medium	Male	Female	Small	Medium	Male	Female	Small	Medium	Male	Female
Revenue _{t-1}	0.2214*** (0.05801)	-0.06404 (0.1633)	0.1117 (0.06881)	0.1915** (0.08497)	0.09452*** (0.02819)	0.8366 (0.5604)	0.06679 (0.04430)	0.09881** (0.04573)	0.1586*** (0.02053)	0.4367 (2.1776)	0.03894 (0.03111)	0.05707* (0.03282)
Education	0.02782 (0.1619)	-0.9321** (0.4661)	-0.02036 (0.2175)	-0.02884 (0.2551)	0.05177 (0.1395)	2.5321*** (0.9677)	0.3208* (0.1879)	-0.2224 (0.2397)	0.4834*** (0.09244)	3.4432 (3.2102)	0.3506*** (0.1197)	0.6240*** (0.2156)
Self-employed experience	-0.4136** (0.1630)	-0.3667 (0.4804)	-0.5525** (0.2222)	-0.2047 (0.2581)	0.1742 (0.1238)	-0.9890 (0.9630)	-0.01522 (0.1809)	0.6265*** (0.2334)	0.1230* (0.07177)	-12.140* (7.3427)	0.1067 (0.1000)	0.3019* (0.1719)
Network size	-0.01848 (0.08175)	-0.2558 (0.4468)	-0.09458 (0.1272)	0.2352* (0.1364)	-0.4436*** (0.06936)	-2.5434** (1.1457)	-0.1461 (0.1007)	-0.6670*** (0.1364)	-0.2552*** (0.03730)	0.4272 (3.3776)	0.08194 (0.05380)	-0.1105 (0.08720)
Network diversity	0.4282*** (0.1613)	0.2975 (0.4457)	0.5714*** (0.2158)	0.1877 (0.2466)	0.04712 (0.1264)	3.3209** (1.3267)	0.2788 (0.1771)	-0.3194 (0.2306)	0.4157*** (0.07017)	21.299** (9.6951)	0.3887*** (0.09295)	0.7508*** (0.1556)
Institutional quality (IQ)	0.9681*** (0.3242)	1.8762** (0.8961)	0.7953** (0.3949)	1.4350*** (0.5284)	1.7175*** (0.2831)	-8.1142*** (1.9772)	1.2281*** (0.3760)	1.7705*** (0.5039)	2.0251*** (0.1559)	19.175** (8.3345)	1.6522*** (0.1995)	2.9458*** (0.3607)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Activity dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-5.8936*** (0.9101)	-1.2545 (2.6652)	-5.1298*** (1.0093)	-7.5359*** (1.3978)	-3.8297*** (0.4613)	-15.158 (9.5057)	-5.4806*** (0.7112)	-4.7242*** (0.8195)	-1.9302*** (0.3146)	7.0161 (37.434)	-2.6181*** (0.4459)	-3.4347*** (0.5803)
Observations	8,570	210	5,764	3,017	8,570	210	5,764	3,017	8,570	124	5,764	3,017
Number of unique firms	2,385	77	1,756	1,015	2,385	77	1,756	1,015	2,385	59	1,756	1,015

Note: *: significant at 10% level; **: significant at 5% level; ***: significant at 1% level. Standard errors in parentheses.