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Bringing It All Back Home

How do transnational experiences influence the careers and entrepreneurial performance of Indonesian technology co-founders?

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Executive Summary

Technology entrepreneurship is increasingly the allure of researchers and policymakers because of its central role in stimulating innovation and economic competitiveness, particularly for emerging economies looking to avoid the middle-income trap. A recent study by Klingler-Vidra et al. (2021) examined the professional experiences of successful Vietnamese entrepreneurs and found that technology entrepreneurs were more likely than non-technology entrepreneurs to: 1) have transnational experiences in the West; and 2) be graduates of American universities. Advancing a placed-based theory of entrepreneurship, Klingler-Vidra et al. argue non-technology entrepreneurs are more dependent on local resources, whereas technology entrepreneurs leverage international knowledge and networks.

This research replicates this Vietnamese study in the Indonesian context and finds that, despite a high proportion of successful Indonesian technology entrepreneurs possessing international experiences (61.5%) and international education (56.1%), Indonesian technology entrepreneurs were not more likely to have transnational experiences or be internationally educated than their non-technology peers. Indonesian technology entrepreneurs were however 5.3 times more likely to have transnational work experience than their non-technology peers.

Responding to Klingler-Vidra et al.'s call for qualitative research investigating these relationships, we held interviews with four successful Indonesian technology co-founders and discovered that psychological factors – specifically independence, passion, open-mindedness, and confidence – appeared to be the primary mechanism shaping the success of transnationally experienced technology entrepreneurs. The psychological development of the entrepreneur, which emerges through the challenges of living in a foreign culture, supports the acquisition of task-relevant human and social capital, which in turn shapes their performance and career. Interviewees emphasised the importance of soft skills – particularly intercultural and leadership skills – over hard skills, which allowed them to accumulate social capital, particularly with foreign investors. Interviewees also emphasised how these soft skills, combined with reputable international education qualifications, appeared to broker access to high value Indonesian knowledge networks. The presence of educational homophily in Indonesia can also help explain the high rates of international education attainment (45.7%) found among successful Indonesian non-technology founders. Our research concludes by offering a conceptual framework to demonstrate how transnational experiences influence the performance of Indonesian technology entrepreneurs.

Keywords: *Indonesia, entrepreneurship, transactional experience, international knowledge transfer*

Contents

1. Introduction

1.1 Entrepreneurship in Indonesia

Indonesia is at a unique stage in its development. The country has made large gains against poverty over recent years; however, modest improvements in human capital and international competitiveness have been hard fought. The economic fallout from COVID-19 presents new obstacles, which have ultimately seen Indonesia relegated from upper-middle income to lower-middle income status (World Bank, 2021). Despite these challenges, Indonesia – along with Vietnam – has emerged as Southeast Asia's fastest growing startup ecosystem. A report from Google et al. (2019) estimated the value of Indonesia's internet economy at US $40 billion in 2019, quadrupling from 2015. This figure is expected to reach $130 billion by 2025.

Indonesia's most iconic startup, Gojek, began in 2010 as a call-centre for a fleet of motorcycle delivery drivers in the nation's capital, Jakarta. Gojek would go on to transform the Indonesian economy, becoming Indonesia's first unicorn in 2016, less than two years after launching its ride hailing mobile application (Pratama, 2016). Another eight companies have since joined Indonesia's unicorn list and an $18 billion US merger between Gojek and the Indonesian eCommerce platform Tokopedia would become Indonesia's largest ever business deal in 2021 (Medina, 2021).

Indonesia's current president Joko Widodo, himself an entrepreneur, has long insisted on entrepreneurship as a vehicle for making the Indonesian economy more internationally competitive. In 2020, Widodo signed off the historic Omnibus Laws on Job Creation, a suite of 76 laws designed to remove obstacles to investment in Indonesia. The laws helped ease foreign investment restrictions, reinvigorate Special Economic Zones, streamline business licensing processes, and simplified local labour laws. The laws also introduced incentives for micro, small and medium enterprises, including a national business incubation program, finance facilitation and a special allocation fund to support the entrepreneurship initiatives of local governments (PWC, 2022).

One of Widodo's most enterprising directives was to appoint Nadiem Makarim – the founder of Gojek – as the Indonesian Minister for Education, Culture, Research and Technology in 2019. Since his appointment, Makarim has unveiled Kampus Merdeka – a flagship suite of

policies designed to strengthen innovation within the Indonesian education system. The program included funding for international exchange programs, a national internship platform for Indonesian university students, and a mentoring program for Indonesian co-founders (Kemdikbud, 2022). Makarim has also liberalised aspects of the Indonesian higher education system, welcoming the opening of Monash University in Jakarta in 2021, the first foreign-owned university to establish an International Branch Campus in Indonesia (Monash, 2020). Indonesia will promote its digital revolution to the world in 2022 as host of the G20 leaders' summit – technology-based economic transformation has been identified as one of three focal points for the meeting (Indra Arief & Resinta, 2021).

1.2 Two Entrepreneurial Journeys

The Widodo-Makarim duo are in many respects emblematic of the Southeast Asian entrepreneurial journey, and the distinct experiences of technology and non-technology co-founders. Like many successful non-technology entrepreneurs, Widodo's formative experiences were local. As a forestry graduate from Gadjah Mada University in Indonesia, he first worked within state-owned forestry operations before establishing his own successful furniture company, Rakabu (Widhiarto & Ayuningtyas, 2014).

Makarim's journey, on the other hand, is typical of a new breed of high-performing Southeast Asian tech entrepreneurs. Makarim obtained a Bachelor of Arts in International Relations from Brown University and a Master of Business Administration from Harvard University. He then worked for three years with the management consultancy firm McKinsey & Company before going on to found Gojek (Crunchbase, 2022a).

The dichotomous experiences of technology and non-technology entrepreneurs in Southeast Asia was recently documented in a study of Vietnamese co-founders by Klingler-Vidra et al. (2021). This study found that high performing technology entrepreneurs were 35 times more likely to be graduates of a US university compared with their high performing non-technology peers. Educational backgrounds were highly correlated with undergraduate studies at America's highly ranked elite universities, such as Yale, Stanford, and UCLA – a connection with post-graduate studies was evident but not as strong. Technology founders were also 15 times more likely to have work experience in the Global North (Klingler-Vidra et al., 2021). No such studies have been carried out in Indonesia; however, anecdotal evidence implies a

similar link between transnational experience and technology entrepreneurship in the Indonesian context (Prasatya, 2017).

As emerging economies become increasingly committed to digital innovation and technology entrepreneurship, these findings fuel a growing interest in phenomena of transnational experiences and challenge the traditional characterisation of Global South to North mobility as a 'brain drain'. Saxenian's (2005) early investigations of migrant engineers and entrepreneurs demonstrated that transnational experiences in Silicon Valley were central to the emergence of vibrant technology sectors in China and India. As a consequence, she depicts the transnational experience in more positive terms, describing the phenomena as a process of 'brain circulation'.

While the link between transnational experiences and technology entrepreneurship is well documented (Saxenian, 2005; Klingler-Vidra et al., 2021), the causal mechanisms underpinning this relationship are not well understood. Klingler-Vidra et al. (2021) emphasise the need for further qualitative research to unpack this phenomenon and investigate why the American educational experience in particular is so beneficial for technology co-founders.

1.3 Research Question

In order to examine the relationship between transnational experience and the entrepreneurial performance of Indonesian technology co-founders as compared to non-technology co-founders, our research begins by recreating to the extent possible, the Klingler-Vidra et al. (2021) study, hereafter referred to as the Vietnamese study. This first component of our research utilises quantitative research techniques to compare the transnational experiences of two secondary data sets: 1) successful technology co-founders in Indonesia; and 2) successful non-technology co-founders in Indonesia. The below hypothesis has been developed for this research and has been adapted from the Vietnamese study.

> *Hypothesis 1: High-performing technology co-founders from Indonesia are more likely to have transnational experience, compared to high-performing non-technology co-founders.*

Furthermore, the Vietnamese study finds a strong relationship between US educational experiences and technology entrepreneurial performance. To investigate this relationship in

the Indonesian context, a second hypothesis below has also been adapted from the Vietnamese study.

> *Hypothesis 2: High-performing technology co-founders from Indonesia are more likely to be graduates of US universities, than the co-founders of high-performing non-technology businesses.*

The second component of this research explores how transnational experiences influence the entrepreneurial performance of Indonesian technology co-founders. Successful Indonesian technology co-founders were interviewed to capture their perceptions and insights as to how transnational experiences influence entrepreneurial success. The below topic question has been developed to guide this more exploratory research.

> *Topic question: How do transnational experiences influence the careers and entrepreneurial performance of successful Indonesian technology co-founders?*

This research question is deliberately open ended and does not rely on successfully accepting the earlier quantitative research hypothesis. If no link exists between transnational experience and entrepreneurial performance in Indonesia, the findings from these interviews still enrich our understanding of how transnational experiences influence technology entrepreneurship.

2. Literature Review

In this literature review, we introduce the Indonesian transnational experience through an examination of Indonesian overseas student and worker statistics. We then examine the connection between innovation and technology entrepreneurship, and its role in stimulating the development of Regional Innovation Systems and knowledge transfer to the Global South. To answer our qualitative research question, we consider different measures of entrepreneurial performance and undertake an investigation of entrepreneurial performance literature to investigate how transnational experiences might influence the careers of Indonesian technology co-founders. Finally, we offer a preliminary conceptual framework to explain this mechanism.

2.1 The Indonesian Transnational Experience

The rapid emergence of vibrant technology sectors in China and India over the past two decades has led to an increased academic interest in the transnational experiences – the international work, education, and travel backgrounds – of leading technology entrepreneurs from the Global South. However, the transnational experiences of Indonesian technology entrepreneurs to date remain relatively undocumented. To understand the Indonesian transnational experience, it is important to first understand the make-up of the Indonesian born diaspora. Most recent statistics indicate approximately 44,000 Indonesian students studied abroad in 2016, with the top five destinations for Indonesian students (see Table 1 below) accounting for over 80 percent of all offshore enrolments (Austrade, 2019).

Table 1: Top Five Destinations for Indonesian Students in 2016

Country	**Percent of total**	**Number of students**
Australia	24.2	10,676
United States	21.0	9,309
Malaysia	18.2	8,039
United Kingdom	7.2	3,164
Japan	6.5	2,854

The lion's share of outbound students appears to be privately funded, although the Indonesian Government also offers a range of scholarships to support international study. The Indonesian Government's largest international scholarship program, LPDP, offered a total of 1,789 scholarships in 2018 and has delivered 20,255 scholarships since its inception in 2013 (LPDP, 2018). Some foreign governments – such as Australia, the US, the UK, China, and Japan – also fund scholarships for high achieving Indonesian students.

Indonesia's international workforce is much larger than its international student population – over nine million Indonesians were working overseas in 2016, representing almost seven percent of the total Indonesian workforce. The overwhelming majority of migrant workers are low skilled workers, with 78 percent not formally completing high school. Indonesia's migrant workforce returned a total of US $8.9 billion in remittances to the Indonesian economy in 2016 (World Bank, 2016). Over half of the Indonesian foreign workforce is in Malaysia, owing to its close proximity, language similarities and higher wages. The top five employment destinations for Indonesian foreign workers are depicted in Table 2 below.

Table 2: Top Five Destinations for Indonesian Foreign Workers in 2016

Country	**Percent of total**	**Number of workers**
Malaysia	55	4,950,000
Saudi Arabia	13	1,170,000
Taiwan	10	900,000
Hong Kong	6	540,000
Singapore	5	450,000

The Indonesian Government does not maintain statistics on the number of Indonesian professionals working abroad; however, the above countries, as well as foreign study destinations, serve as an indicator of professional employment opportunities. According to the 2016 Australian census, a total of 41,037 Indonesians were employed in Australia and 43 percent of those were employed in skilled managerial, professional or trade positions (Australian Department of Home Affairs, 2018). Similar data could not be identified for other host countries.

2.2 Innovation and Technology Entrepreneurship

Definitions of innovation are wide-ranging although one commonly cited definition depicts innovation as "a multi-stage process whereby organisations transform ideas into new improved products, services or processes, in order to advance, compete and differentiate themselves successfully in their marketplace" (Baregheh et al., 2009, p. 1334). Innovation is closely related to economic performance and competitiveness. Innovation also stimulates industrial and technological transformation, which is recognised as important for allowing emerging economies to avoid the middle-income trap (Damuri et al., 2018).

Technology entrepreneurship is increasingly attracting the attention of researchers and policymakers because of its close association with innovation. Bailetti (2012) defines technology entrepreneurship as "an investment in a project that assembles and deploys specialised individuals and heterogeneous assets to create and capture value for the firm" (p.5). Technology entrepreneurs are distinguished from their non-technology peers because of a culture of collaborative experimentation and the creation of new products and assets that advance scientific and technological knowledge (Bailetti, 2012). Beckman et al. (2012) emphasise technology entrepreneurship's potential to drive scalable economic growth and manifest social and environmental outcomes.

The relationship between technology entrepreneurship, innovation, and social and economic outcomes is clearly visible in the Indonesian context, with Gojek contributing an estimated US $17.6 billion to the Indonesian economy in 2021, including US $4.7 billion to their drivers and merchant partners (Sutrisno, 2021). Having revolutionised transport and logistics throughout urban Indonesia, the immense scale and reach of the Gojek ecosystem now allows the tech giant to drive social and commercial innovations at the national level across a diverse range of industries, including telemedicine (Chopra, 2017), mobile payments (Yahoo Finance, 2021) and government payments (Mulia, 2021).

2.3 Regional Innovation Systems in the Global South

Understanding the influence of technology entrepreneurship on emerging economies demands a thorough investigation of the academic literature on innovation systems. In the 1980s innovation was seen as a linear process of manufacturing research and development (inputs) into marketable inventions (outputs); however, early theories of innovation systems

reimagined innovation as an accumulation of knowledge resulting from complex interdependencies between various actors (Asheim et al., 2015). The concept of Regional Innovation Systems (RIS) emerged in the 1990s from the interdisciplinary research between scholars of innovation and economic geography. RIS theory emphasises the importance of geographic proximity for knowledge transfer and learning processes and has been used extensively to explain the uneven distribution of innovation and knowledge capabilities (Asheim et al., 2015). Technology entrepreneurship is closely related to the RIS phenomenon because of the important role technology entrepreneurship plays in organising specialised individuals and knowledge assets.

As the RIS concept developed, it was used to explain how different RIS emerge, which expanded the concept's application to the field of international development (Asheim et al., 2015). Chaminade and Vang (2006) argue the RIS in Bangalore - the most prominent advanced technology centre in India – emerged from links between government, entrepreneurs, and transnational corporations. They concluded a RIS can emerge in a developing country when the region starts accumulating competencies and innovative actors, which typically requires a cluster of local firms, skilled workers, quality education providers, and strong organisational and research facilities. Foreign investment and multinational companies are seen as critical for building competencies and forging links between innovative actors in the early stages of a RIS. Chaminade and Vang (2006) also emphasised the constructive role of 'international social capital' that emerges from transnational cooperation between entrepreneurs, the diaspora community and education institutions.

However, the clustering of capabilities that occurs within a RIS can also be seen as a double-edged sword. Saxenian (2001) cautions against the unfettered development of high-tech enclaves in developing countries where the local governance and human resource inputs are inadequate, arguing the technology sector can sometimes work against society's most vulnerable by exacerbating inequality and undermining the competitiveness of other low skill industries by contributing to 'Dutch disease'.

2.4 International Knowledge Flows

Contemporary RIS studies have emphasised the importance of knowledge flows for RIS development in the context of both developed and developing countries. Bibliometric analysis reveals knowledge concepts such as creation, flows, spill over and bases, and their interrelated

activities have featured prominently among influential RIS research since the 2000s. Broadly speaking these studies emphasise the importance of economically useful knowledge (López-Rubio et al., 2020).

Trippl et al. (2017) argue global knowledge sources are important for spurring new pathway development, which is a function of how well RIS' can attract and absorb knowledge. Knowledge attraction, in this context, refers to the processes and channels by which the RIS, and organisations within it, source knowledge from abroad. In their studies of multinational enterprises, Cohen and Levinthal (1990, p. 128) defined knowledge absorption as the capacity to "recognise the value of new, external information, assimilate it, and apply it to commercial ends". Firms within a diversified and organisationally thick RIS – which refers to the strength of the regional innovation architecture and institutions – find it easier to both attract and absorb global knowledge (Trippl et al., 2017).

A study of global knowledge flows in Italy highlighted the complementary relationship between international connections and the RIS and identified three main innovation-creating actors – private firms, sub-national governments, and education providers/research institutes – responsible for forging international connections (Lew et al., 2018).

2.5 Entrepreneurial Performance

While economists and policy makers often adopt a system-level view of innovation, entrepreneurs and investors are much more concerned with performance at the firm-level. To understand the influence of transnational experience on Indonesian technology entrepreneurs, it is important to define and integrate different measures of entrepreneurial performance. Entrepreneurial success is considered a complex phenomenon that can be evaluated from a range of perspectives. A psychological perspective of entrepreneurial performance prioritises the welfare and priorities of the individual entrepreneur and is primarily concerned with personal metrics such as enjoyment, personal relationships, lifestyle, satisfaction, and a sense of achievement (Lukes & Laguna, 2010).

Economic measures of performance are particularly common among technology startups because of the technology sector's strong emphasis on scalability. Díaz-Santamaría and Bulchand-Gidumal (2021) suggest that revenue-based measures and funding-based measures are the most common economic indicators of success. Revenue results and revenue growth

provide insights into a startup's current and future profitability whereas the amount of finance raised by a startup is seen as market-based validation of a venture's future growth potential. The two economic measures are not perfectly correlated, and there are many famous instances of startups achieving large valuations prior to generating revenue (Dickey, 2013). Many technology startups are not publicly listed and are not obliged to publicly disclose revenue, however, startup funding events are generally made publicly available because of the ability of funding announcements to signal confidence in a venture.

A stakeholder perspective of entrepreneurial performance recognises that new ventures have potential to create and destroy value for a range of people. Ali and Cottle (2019) argue a stakeholder lens is better able to reflect the net contribution to society by looking beyond the narrow interests of entrepreneurs and shareholders and considering how operations impact customers, suppliers, employees and communities. Stakeholder measures of entrepreneurial performance are much more important for a macro-level view of entrepreneurship.

A large body of entrepreneurship research has considered the various determinants of entrepreneurial performance. These factors are often attributed to two separate schools of thought: human capital and social capital (each of which is considered in turn below).

2.6 Human Capital and Entrepreneurship

The concept of human capital can trace its origins to the works of Adam Smith, whose fourth definition of capital noted that "the acquisition of … talents during … education, study, or apprenticeship, costs a real expense, which is capital in [a] person. Those talents [are] part of his fortune [and] likewise that of society" (Smith, 1776). The term human capital is used across a wide range of disciplines and there is no universally accepted definition; however, one commonly cited definition from the field of management recognises human capital as:

> *"…the human factor in the organisation; the combined intelligence, skills and expertise that gives the organisation its distinctive character. The human elements of the organisation are those that are capable of learning, changing, innovating, and providing the creative thrust which if properly motivated can ensure the long-run survival of the organisation" (Bontis et al., 1999, p. 393).*

The human capital perspective of entrepreneurship is perhaps best summed up by Drucker (1985) who said "[entrepreneurship] is a discipline. And, like any discipline, it can be learned".

The association between human capital and entrepreneurial performance is well documented, although there are a wide range of arguments for how human capital influences entrepreneurial outcomes (Colombo et al., 2004; Dyke et al., 1992; Shane, 2000; Unger et al., 2011). In understanding this relationship, it is important to distinguish between human capital investments and the outcomes of human capital investments. These outcomes should in turn influence the effective actions of the entrepreneur (Unger et al., 2011).

2.7 Human Capital Investments and Outcomes

Human capital investments are made through educational and professional experiences which typically result in outcomes associated with knowledge acquisition and the formation of human relationships. 'Jack-of-all-trade' theories of entrepreneurship demonstrate that, while employees require high levels of specialisation, entrepreneurs tend to be generalists with varied labour market experience (Åstebro & Thompson, 2011). Many researchers have emphasised the importance of work experience on entrepreneurial success (Colombo et al., 2004; Dyke et al., 1992; Shane, 2000; Unger et al., 2011). Previous industry, management and startup experiences of firm owners have been positively correlated with firm performance across a range of industries (Dyke et al., 1992). The collective breadth of industry experience among nascent startup teams can also increase the likelihood of a venture achieving profitability (Muñoz-Bullon et al., 2015). Unger et al. (2011) argue it is not the work experience itself, but the acquisition of task-related knowledge and skills that is driving entrepreneurial success.

The advantages of professional experience are wide ranging. Startup and industry experiences are recognised as aiding entrepreneurs to recognise entrepreneurial opportunities (Politis & Gabrielsson, 2005). Shane (2000) argues deep experience in a field allows entrepreneurs to more easily stumble upon related entrepreneurial opportunities without the need for extensive searching. Management experience on the other hand supports the entrepreneur to overcome liability of newness by allowing the entrepreneur to better respond to the multitude of daily challenges that entrepreneurs confront (Politis & Gabrielsson, 2005). Management experience is particularly beneficial for high-risk ventures such as technology entrepreneurship (Dencker & Gruber, 2015).

Researchers also recognise the importance of education and academic institutions for entrepreneurship and innovation and there is a demonstrated link between educational

attainment and the success of technology ventures (Colombo et al., 2004). Highly educated entrepreneurs are also more able to realise growth than low skill entrepreneurs, provided the entrepreneur has growth aspirations (Wiklund & Shepherd, 2003). Asheim and Coenen (2005) draw a distinction between analytical knowledge, driven by the creation of new codified knowledge and synthetic knowledge, which emphasises the application of tacit knowledge which is pre-existing. Research intensive industries – such as IT and biotech – are particularly dependent on the higher education sector because of their reliance on analytical knowledge. Conversely, engineering-intensive industries – such as software development – require the application of synthetic knowledge, which demands high levels of industrial specialisation and interactive learning (Asheim & Coenen, 2005).

Transnational education experiences, particularly in English-speaking countries, help accelerate the attainment of English-language proficiency. Shehu and Shittu (2015) argue the adoption of the English language as a global language of business provides speakers with an entrepreneurial competitive advantage by allowing them to communicate with greater influence and obtain access to broader fields of operation and information.

For many skilled migrants, investments in formal education are an important prerequisite for the acquisition of professional experience. Surveys of Chinese students with transnational higher education experiences reveal the value of hard knowledge, soft skills and cross-cultural understanding acquired from study abroad, which positively contributes to graduate employability (Mok et al., 2018). Holmberg-Wright and Hribar (2016) argue soft skills are undervalued within the field of entrepreneurship on the basis that many instances of venture failure are attributed to team dynamics and poor management. Wang et al. (2011) posit that Chinese returnee technology entrepreneurs (that is entrepreneurs who have studied or worked abroad and returned) develop teamwork skills while abroad that can distinguish them from their domestic peers.

Closely related but distinct from formal education is the influence of entrepreneurial education. Researchers now recognise the importance of academic entrepreneurship – university programs to encourage commercialisation processes – for the creation of unique technologies and entrepreneurial opportunities (Wood, 2011). Academic entrepreneurship and the entrepreneurial university have emerged as a consequence of many modern universities adopting a ‘third mission’ of making an economic contribution to society (Eatmon et al., 2019). The modern entrepreneurial university now offers a range of entrepreneurial initiatives

to boost academic entrepreneurship – such as tailored entrepreneurship courses, bootcamps, incubator programs, startup competitions, and proof concept centres – which differentiate them from traditional universities.

These initiatives ideally offer immersive experiences that equip students with practical entrepreneurial skills and familiarise them with the entrepreneurial process (Shah & Pahnke, 2014). Immersive learning allows students to develop entrepreneurial competencies that can assist with the identification of entrepreneurial opportunities (Ratten & Usmanij, 2021). Entrepreneurship education in the Indonesian context has been shown to indirectly reinforce the entrepreneurial intentions of students (Mahendra et al., 2017). Entrepreneurial education has also been shown to inspire students and spark a passion for entrepreneurship (Souitaris et al., 2007). Venture capitalists value founder teams with passion and a shared strategic vision (de Mol, 2019).

2.8 Social Capital and Entrepreneurship

Social capital can be defined as "the goodwill available to individuals or groups. Its source lies in the structure and content of the actor's social relations. Its effects flow from the information, influence, and solidarity it makes available to the actor" (Adler & Kwon, 2002 p.23). The social capital available to people and organisations is heterogeneous and mediated by obstacles or boundaries that can inhibit the formation of new relationships (Kim & Aldrich, 2005). The influence of social capital on entrepreneurial success is well documented (Honig & Davidsson, 2000) and is perhaps best summed up by the maxim 'it's not what you know but who you know.'

Research on entrepreneurship and social capital has also emphasised the strength of emotional ties between the entrepreneur and other stakeholders. The social capital of an entrepreneurial venture is typically comprised of strong emotional ties that 'bond' internal stakeholders, such as co-founders, early employees, and mentors; and weak emotional ties that 'bridge' into the specialised knowledge reserves and resources of external contacts, such as industry leaders, financiers, political figures, and technical experts (Florin et al., 2003). Studies of founder teams have shown that early-stage team composition is primarily motivated by trust and familiarity rather than evaluations of competence, underscoring the importance of strong internal ties (Ruef et al., 2003). Conversely, weak ties can expand the stocks of knowledge and resources available to a venture. The importance of weak ties is demonstrated by a study

of LinkedIn networks, which found a positive correlation between the number of founder connections and the amount of funds raised by the co-founders (Banerji & Reimer, 2019).

2.9 Social Capital Investments and Outcomes

The influence of social networks can easily be observed within the academic environment, and students often making large financial investments in formal education opportunities with the aim of accessing prestigious education and alumni networks (Kim & Aldrich, 2005). Knowledge intermediaries embedded within the university – such as Technology Trade offices and accelerator programs – are recognised as an important feature of entrepreneurial university ecosystems because of their ability to connect academic entrepreneurs with non-academic contacts (Hayter, 2016). Kacperczyk (2013) also emphasises the role of social influences on entrepreneurial intention, demonstrating that entrepreneurship is often socially transmitted through university peer groups rather than the actions of the academic institution itself.

Longitudinal studies of entrepreneurship have shown that membership of business networks – such as chambers of commerce and industry associations – are strongly associated with the sales and profitability of nascent ventures, underscoring the importance of actively cultivating relationships (Honig & Davidsson, 2000). Studies of entrepreneurial networks have shown that founders of more established entrepreneurial ventures have larger networks and deliberately dedicate more time to networking activities than founders of early-stage ventures (Greve, 1995).

Studies of Chinese returnee entrepreneurs have found that their Western experiences allowed them to more easily leverage entrepreneurial opportunities that arise from information asymmetry between different knowledge networks (Dai & Liu, 2009). Similarly, studies of Chinese entrepreneurs indicate that international education experiences signal a greater sense of legitimacy, which can assist the founders of new ventures to acquire venture capital (Zheng et al., 2021).

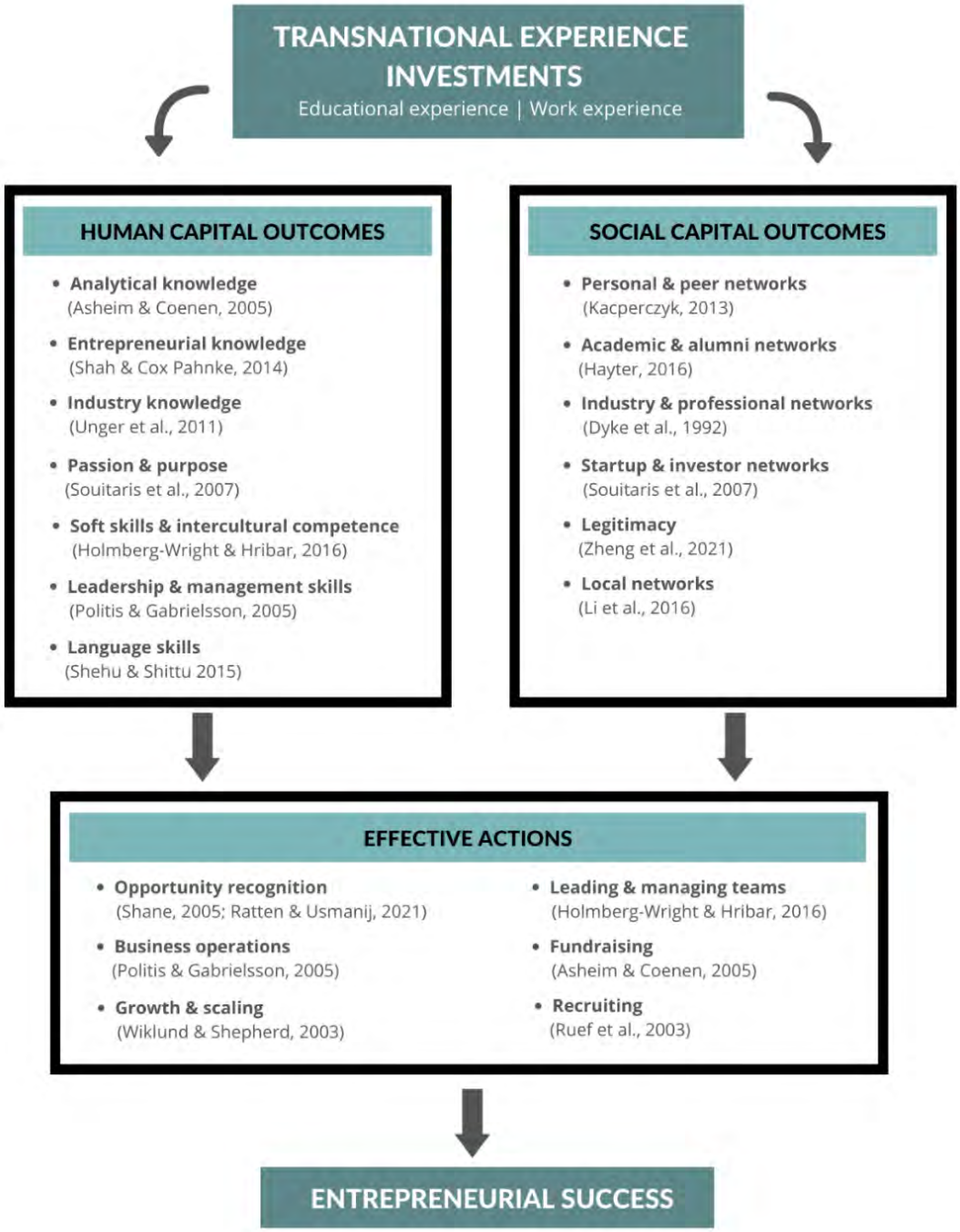
The influence of political connections on entrepreneurial performance also appears more pronounced in emerging economies. Studies of entrepreneurship in China identified a positive relationship between entrepreneurial performance and Chinese Communist Party membership, particularly in regions with less competitive markets and weaker legal protections. Party

membership improved the entrepreneur's access to finance from banks and other state-owned institutions (Li et al., 2008, p. 284).

2.10 A Preliminary Conceptual Framework

The below preliminary conceptual framework (see Figure 1) has been developed to summarise the possible influence of transnational experience on the performance of Indonesian technology entrepreneurs. Building on the model of Unger et al. (2011), the framework recognises that transnational investments – in the form of international education and work experiences – only benefit an entrepreneur if they result in practical human or social capital outcomes. These outcomes allow entrepreneurs to perform effective actions which increase the entrepreneurial venture's likelihood of success. Through interviews of successful Indonesian technology co-founders, this research explores which human and social outcomes, and effective actions best explain the performance of Indonesian technology entrepreneurs with transnational experience.

Figure 1: Preliminary Conceptual Framework for the Influence of Transnational Experience on Technology Co-Founders



3. Methodology

The research methodology outlined below provides a roadmap for answering the research questions. The bipartite nature of this research demanded the use of two separate research methodologies, specifically quantitative and qualitative methodologies. Our two research hypotheses: 1) that high-performing technology co-founders from Indonesia are more likely to have transnational experiences, compared to high-performing non-technology co-founders, and 2) that high-performing technology co-founders from Indonesia are more likely to be graduates of US universities, than the co-founders of high-performing non-technology businesses is tested using quantitative research techniques (outlined at 3.1).

In contrast, our topic question 'how do transnational experiences influence the careers and entrepreneurial performance of Indonesian technology co-founders?' is explored using qualitative interviews of co-founders (outlined at 3.2).

3.1 Quantitative Methodology

As noted above (see 1.3), the first part of our research will replicate an existing study of Vietnamese technology co-founders. To the extent possible, we mirror the methodology of this original study to ensure the comparability of our findings. Only minor aspects of the original study, such as statistics on Soviet Union experiences, were not replicated as they were not considered relevant for the Indonesian political economy.

3.1.1 Target Population and Data Set

The target population for this research is successful Indonesian technology and non-technology co-founders. A data set was compiled comprising two sub data sets, namely a list of high-performing co-founders of technology businesses and a list of high-performing co-founders or non-technology-oriented businesses. Company valuations as of September 2021 and January 2022 were used respectively as the indicator of their high performance.

After applying the relevant filters (as outlined below), a total of **146 technology companies**, with **301 identifiable co-founders** were included in the technology co-founder data set and a total of **34 non-technology companies**, with **46 identifiable co-founders** were included in

the non-technology data set (for a total of 180 companies and 347 co-founders across both data sets).

Technology data set filtering

The technology data set was sourced from Crunchbase, a platform that provides extensive technology company insights, ranging from early-stage startups to large global decacorns (Crunchbase, 2022b). Through Crunchbase's filter system, a list of the highest performing Indonesian-based technology companies was generated based on their equity funding. For the purposes of this research, the threshold for success was set at a minimum of US $100,000, following the same threshold and reasoning as applied in the Vietnamese study, which returned a search total of 326 companies.

The exported data contained information about each firm's industry coding, location and co-founder(s), as well as date of founding. Further independent Indonesian and English language research, particularly through company websites and recent news, was carried out to confirm whether these companies fulfilled the following criteria: a) their main product or service is technology-enabled; b) they were founded on or after the year 2000 and are not state funded; and c) they are Indonesian companies that are independent and actively trading.

The first 'technology-enabled' filter removed every firm whose main business was non-technology oriented. The Vietnamese study classified technology-focused companies as those that fall under the following categories - Apps, Artificial Intelligence, Business Information Systems, Data and Analytics, Design, Gaming, Information Technology, Internet Services, Media and Entertainment, Messaging and Telecommunications, Mobile, Platforms, Software and Video. The same categories of 'technology-focussed' companies were applied in this research. A total of 215 companies were subsequently included in the technology data set.

Based on the 'date of founding' filter, four technology companies were removed as they were set up prior to 2000 (e.g., Bhinneka.com and Nex-I). The reason for establishing a founding date limit was to control the influence of survival bias (Chen, 2021). Furthermore, filtering also removed government owned companies, resulting in the removal of one organisation (LinkAja). This resulted in a list of 210 technology companies.

Finally, firms were deemed 'actively trading as independent companies' if: a) founded and based in Indonesia (e.g., Migo was removed as it is based in Taiwan); b) not a subsidiary of an overseas parent company (e.g., Kredivo was removed as Singapore's FinAccel is their parent company); c) their websites and social media have been active for the past year and have not been deactivated; and d) there was no news reports of company failure (of which there were many during the COVID-19 pandemic for example). In total, this filtered out 46 companies, leaving 165 companies in the technology data set (prior to co-founder identification, see below).

Non-technology data set filtering

A data set of non-technology companies was also generated to enable comparison with the technology data set. The non-technology data set applied similar qualifying filters; however, the data was retrieved from Investing.com, a financial platform that offers information regarding publicly traded companies on the Indonesian Stock Exchange (IDX). Publicly traded market capitalisation ('market cap') was used as the measure for high-performing firms outside of the technology sector. A market cap of US $7 million was used resulting in the identification of 719 companies. This threshold was set lower than the original Vietnamese study to increase the number of non-technology companies included in our study. Unlike the Vietnamese study, our non-technology data set did not fulfil the criteria of having at least one company from each of Investing.com's industry categories.

Of the 719 non-technology companies identified, eight fell into the technology category and hence were removed. Second, a cut off year for companies established before 2000 was applied. This excluded a further 387 companies from the list. A further 32 companies were found to have state origins and were removed. Third, the independent and actively-trading filter led to the removal of an additional 128 companies that were subsidiaries of foreign multinational corporations (e.g., Unilever) or Indonesian conglomerates (e.g., Salim Group, Lippo Group, Sinar Mas). Any duplicate listings were also removed. This resulted in 158 companies being included in the final non-technology data set (prior to co-founder identification, see below).

Identification of co-founders

The identification of co-founders was either achieved via Crunchbase or ad hoc Google and news research. The latter was important for the non-technology data set as Investing.com did

not contain information on co-founders. Steps taken to ensure an accurate co-founder data set included: 1) examining the company website for co-founder details; and 2) conducting a Google search for further information. If no details of the co-founders were available, the company was removed from the data set. Based on this rule, three firms were removed from the technology data set and 120 companies were removed from the non-technology data set. The result of these filters led to a total of 146 high performing technology businesses being included in the technology data set and 34 high performing non-technology companies being included in the non-technology dataset.

A final screening of the data was conducted to determine if co-founders were Indonesian citizens. This screen revealed 36 foreign co-founders and seven duplicate names from the technology data set, as well as one foreign co-founder from the non-technology data set. All 44 names were removed, leaving the final count at 301 co-founders from technology businesses and 46 co-founders of non-technology companies (for a total of 347 co-founders across both data sets) as of March 2022.

3.1.2 Data Collection

Once the technology and non-technology data sets were established, a total of 347 co-founders were identified as in-scope for this research. Each of the co-founders were researched thoroughly through a variety of sources such as LinkedIn, media coverage and Wikipedia, both in English and Indonesian. For all 347 co-founders, data was collected as to whether they had transnational education or work experiences or place-based experiences. The majority of co-founder data was collected from public LinkedIn profiles. The data collection process also gathered international education details, such as location, subject and degree obtained, and international work histories, with some co-founders having experience with up to six different international companies.

If a co-founder was determined to have transnational experience, data on where that experience took place (outside Indonesia) was also recorded, including if they had studied or worked in multiple locations. Where co-founders had transnational experience in multiple locations, each location was recorded.

3.1.3 Data Analysis

For our quantitative analysis we sought to mirror the statistical techniques applied throughout the Vietnamese study. We used binary coding to organise the data. For the purpose of this research, all co-founders included in our technology data set were assigned a value of 1 while all non-technology co-founders were assigned a value of 0.

Our first hypothesis predicted that Indonesian technology co-founders would be more likely to have international experience than non-technology co-founders. To perform this analysis, each co-founder in the aggregated data set (i.e., technology and non-technology) was assigned a value of either 1 or 0 according to whether they had any international work or education experience. Thus, this code served as the independent variable 'transnational experience'.

Our second hypothesis predicted that Indonesian technology co-founders would be more likely to have transnational experience than non-technology co-founders. To perform this analysis, all founders with an American education were assigned a value of 1 and those without an American education were assigned a value of 0. To further examine the transnational education relationship in more detail, a second computation was performed with co-founders with an international education (regardless of country) being assigned a value of 1, and all other co-founders without international education were assigned a value of 0.

To approximate the cause-and-effect relationship between the dependent variable and independent variable(s), a Pearson's Chi-Square analysis was conducted. The Chi-Square ($\chi 2$) test was carried out to determine the probability of the association between the two variables by comparing the observed values in the table with that which might be expected if the two distributions were independent of each other. The two variables were computed in a cross-tabulation (2x2 table). The test relies on the categories used in the contingency table being mutually exclusive so that each observation falls into one category and no expected values of less than 10 for tables of two rows and two columns (Hays, 1994 as cited in Saunders et al., 2007). If the p-value is < 0.05, this indicates a statistically significant relationship between the two variables. (Saunders et al., 2007).

For the purposes of our research, the Pearson's Chi-Square analysis was carried out using SPSS (version 27.0), an advanced data management and statistical analysis software, to examine whether there were any statistically significant differences between technology and non-technology co-founders in relation to transnational experiences generally (relating to

hypothesis 1), and specifically in relation to education (relating to hypothesis 2) and work experiences. A Chi-Square analysis was also used to determine whether technology co-founders were statistically more likely to have studied in the US compared to non-technology co-founders (relating to hypothesis 2). For any significant Chi-Square results, a binary logistic regression analysis was undertaken to determine the predictive power of the relevant variable.

3.2 Qualitative Methodology

As noted above (see 2), there is a large body of literature examining the determinants of entrepreneurial intent and performance and a well-established relationship between international experiences and the performance of technology co-founders from the Global South. However, the mechanism through which transnational experiences shape or influence the careers of these entrepreneurs is not well understood. Thus, the second exploratory component of our research seeks to understand 'how do transnational experiences influence the careers and entrepreneurial performance of successful Indonesian technology co-founders?' The use of a qualitative research methodology reflects the exploratory nature of this research question, which seeks to gain a deeper understanding of the nuanced influences of different elements of the transnational experience on entrepreneurial performance.

For this component of our research, we employed a semi-structured interview methodology, which involved interviewing participants using a list of key themes and questions, while also allowing freedom to adapt questions throughout the interview. Semi-structured interviews are a valued research technique for exploratory studies because they allow the researcher to better obtain new insights and get to the bottom of what is happening (Saunders et al., 2007).

It should be noted that we first intended to explore this research question through a survey methodology, which would have offered greater generalisability; however, due to the small population size and low response rate from our survey, we obtained data that was neither statistically significant nor rich in insights. As a result, we pivoted our research towards a qualitative interview methodology, which allowed us to better elicit rich long-form anecdotes and gain a deeper look into the internal psyche of the entrepreneur.

3.2.1 Target Population

The target population for our qualitative interview-based research was high-performing Indonesian technology co-founders. The same co-founder data set and exclusion criteria developed for our quantitative research (see 3.1) was used to identify interview participants. Non-technology co-founders were not included in qualitative interviews as this was beyond the scope of our topic question. The niche and time-poor nature of our population had important implications for our research methodology because it made it difficult to contact and arrange interviews with co-founders.

3.2.2 Sampling

Our original Crunchbase data set identified a total of 301 co-founders of technology companies, of which 185 had transnational experience. Drawing from the technology co-founder dataset outlined in 3.1, technology co-founders with transnational experiences were invited to participate in interviews through the popular professional social network LinkedIn.

Participants were identified using non-probability sampling techniques. Co-founders with both international work and education experiences were emphasised as we wanted interviewees who were able to draw comparisons between these two experience categories. Similarly, we also tried to include participants who had studied in both the US and other locations, as we wanted to draw comparisons between different geographic experiences. Emphasising certain criteria in this way reflects a form of purposive sampling whereby researchers use their own judgement to select participants that serve the objectives of the research (Saunders et al., 2007).

For those who consented to participate (n = 4), a series of interviews were conducted (as outlined below at 3.2.3). A deidentified description of each participant is provided below.

Participant 1 is the CEO of an Indonesian data analytics platform. He graduated from an American university with a BA in Economics. He had extensive professional experience, including with the World Bank and other foreign governments, prior to founding the data analytics startup. He recently completed an executive education program at a leading American university.

Participant 2 is the CEO of an Indonesian FinTech scaleup. After studying accounting at a leading Indonesian university, he worked with a major multinational bank in Indonesia. Participant 2 then studied an MBA in Europe and worked for several years in the Middle East with another multinational bank before founding his FinTech startup.

Participant 3 is an original co-founder, now advisor, at an Indonesian EdTech company. He has spent well over a decade studying and working abroad. He studied a B.Eng and a MSc. Management in the UK before gaining extensive professional experience with industry, state-owned enterprises, a major multinational professional services firm and in academia. He graduated with a PhD in Management from a leading Indonesian university.

Participant 4 is the CEO of an Indonesian entertainment platform. He studied English in New Zealand before undertaking a six-month internship in Europe as part of his studies towards a Bachelor of Business at an Indonesian university. He then completed a Master of International Business in Australia while working with a multinational industrials company. He worked with a major Indonesian media conglomerate before going on to establish his entertainment startup.

3.2.3 Data Collection

For the purpose of the qualitative component of this research, we conducted one-on-one semi-structured interviews with four Indonesian technology co-founders with transnational education and work experiences. The purpose of these interviews was to collect primary data to better understand how these transnational experiences influenced their careers as entrepreneurs. This semi-structured interview approach allowed us to focus our interviews on key concepts from the academic literature (e.g., human capital, social capital) in a consistent manner, while also providing flexibility to recognise the breadth of transnational experience and to probe deeper on relevant insights from participants, gaining rich contextual detail for their perspectives.

Interviewees were provided with terms of reference which explained the research purpose, methodology and data protection protocols. All interviews were conducted and recorded over Zoom and were scheduled to go for approximately 45 minutes (note interviewees were only interviewed once, no follow-up interviews took place). Upon completion, each interview was transcribed using the software Otter.ai. Basic cleaning of the data occurred to correct any transcription errors. A copy of the transcript was provided to participants after each interview

to confirm the accuracy of the data and provide an opportunity for any comments to be deleted from the record.

Interviews were conducted in English rather than Indonesian as all participants had English language fluency and extensive experience in English speaking education institutions and workplaces. We also wanted to capture the thoughts and opinions of participants directly and ensure that their intended meaning was not lost in translation.

3.2.4 Interview Guide

An interview guide was prepared and used to guide each interview. The niche and time-poor nature of our sample meant we had to be selective about the questions asked in the interview. A total 14 questions were formulated, informed by key concepts identified through a review of the academic literature. In particular, the question set was designed to elicit responses to understand the influence of transnational experiences (both academic and work related) on interviewees entrepreneurial career or success, to understand which human and social capital influences were most important for the interviewee and how the international experience influenced different entrepreneurial functions. The full list of questions asked and the corresponding purpose of the question is provided in Table 3 below.

To ensure further consistency, an interview script (see appendix A) was also developed, which reiterated key points contained within our terms of reference. Verbal consent was obtained from participants who had not returned our written consent form.

The following interview questions were used to administer the semi-structured interviews.

Table 3: Semi-structured Interview Questions

Question	Purpose
- Could you tell us about how you first became interested in entrepreneurship? - What inspired you to establish your startup? - Did your international experiences contribute to your decisions to establish this startup? - Do you believe you would have founded a startup without these international experiences?	To understand the influence of transnational experiences on entrepreneurial opportunity and entrepreneurial intention

- What aspects of the international experience were most important for your performance as an entrepreneur and why? - How did your international study experiences assist you with your entrepreneurial career? - What motivated you to study abroad? - How did your international work experiences assist your entrepreneurial career? - What has been most beneficial for your career? Your international education experiences or your international work experiences? - Optional: Many Indonesian entrepreneurs have studied in the US. What do you believe is unique about the US educational experience?	To understand how international work and study experiences influenced the careers of technology co-founders
- Some academics believe entrepreneurial success is linked to social capital, and argue 'it's not what you know, but who you know.' Others emphasise the importance of human capital and believe 'entrepreneurship is a discipline, and like any discipline, it can be learned'. Which perspective do you agree with most and why? The human capital perspective or the social capital perspective? - Which particular connections and relationships did you make abroad that were important for your entrepreneurial career? - What knowledge and lessons did you acquire abroad that influenced your career?	To understand how human and social capital factors influenced the careers of technology co-founders
- How did your international experiences influence the different stages of the entrepreneurial journey? - What could the Indonesian government do to help entrepreneurs without international experiences?	To understand how the international experience influenced different effective actions (i.e., entrepreneurial functions)

3.2.5 Data Analysis

The resulting textual data from the interview transcripts were coded for thematic analysis. Thematic analysis is understood as a "foundational method for qualitative analysis" (Braun & Clarke, 2006, p. 78). Thematic analysis involves identifying "themes, or patterns, that occur across a data set", often achieved through coding (Saunders et al., 2007).

Thematic analysis of qualitative data may be undertaken using a variety of approaches and applying inductive, deductive, and abductive analysis (Saunders et al., 2007). A deductive approach involves identifying themes based on existing theory to then be examined through

qualitative data collection and analysis (Saunders et al., 2007). Conversely, an inductive approach involves identifying themes from the qualitative data collected and building a theory based on the analysis of that data (Saunders et al., 2007). An abductive approach commences with forming a conclusion from the information that is known and involves a combination of both deductive and inductive approaches whereby themes are added to or modified as the data set is analysed (Saunders et al., 2007).

Deductive analysis

First, the themes of the interview transcripts (textual data) were analysed using a deductive approach. This involved identifying predetermined codes ('a priori') based on the academic literature relating to transnational experience and entrepreneurship. These theory-driven codes were then applied to responses elicited through the interviews and noted on the interview transcripts. Codes (at the micro-level) were grouped into broader themes or categories (at the macro-level). Theory driven codes (micro-level) and categories (macro-level) were drawn from the preliminary conceptual framework provided at 2.10.

Inductive analysis

In addition to the deductive analysis, the transcripts were then further analysed using an inductive approach, whereby common themes beyond the predetermined codes and categories were identified and coded. The new data-driven codes were identified from notes taken throughout the meetings, as well as from a detailed review of the written interview transcripts. All coding was performed using the qualitative research software Atlas.ti. This software enabled analysis of codes to evaluate the frequency and distribution of key themes. All textual data was reviewed by two researchers to validate the coding.

3.2.6 Research Ethics

Research ethics – the extent that we respected the rights of those who participated in our research (Saunders et al., 2007) – were an important consideration for our qualitative research because of our need to collect personal opinions and reflections from interview participants. We were particularly cognisant of privacy and complying with the European Union's General Data Protection Regulation (GDPR) requirements.

All participants who agreed to be interviewed were provided with terms of reference which provided detailed information about how our research would collect, use, store and destroy

data. It also informed participants about their rights under GDPR laws as well as contact points for questions and procedures for withdrawing consent. The terms of reference were accompanied by a written consent form which was returned by participants prior to the collection of data. Two participants failed to return the written consent form and so for these participants content was collected and recorded verbally prior to the interview.

A transcript of interviews was created and forwarded to participants after interviews to confirm they were comfortable with the contents of the transcript. Any identifiable interview data was anonymised from the transcripts and our final research. De-identification was important because of the public standing and limited size of our target population. For this reason, we carefully scanned the contents of interview transcripts to ensure sensitive information was not revealed.

4. Results

The results of both the quantitative and qualitative components of this research are outlined below.

4.1 Quantitative Data Results

Based on our data set, there were a total of 347 Indonesian co-founders of successful technology and non-technology startups. Of these, 59.7% (n = 207) had some form of transnational experience (either education or work), while 40.3% (n = 140) did not have any transnational experience, indicating that approximately 40% of Indonesian co-founders successfully founded a startup without studying or working abroad. Of those with transnational experience, 54.8% had international education experience and 35.7% had international work experience.

To test hypothesis 1 and examine whether there were any statistically significant differences between high-performing technology and non-technology co-founders from Indonesia in relation to transnational experiences (and specifically education and work experiences), Pearson Chi-Square analyses were conducted. The results of these analyses are presented in Table 4 and further described below (for raw data output see Appendix B).

Overall, this analysis revealed no statistically significant differences between the proportion of technology and non-technology co-founders who had overall transnational experience and education experience. However, analysis did reveal a statistically significant difference in the proportion of technology and non-technology co-founders who had transnational work experience, where a higher proportion of technology co-founders (39.5%) had transnational work experience compared to non-technology co-founders (10.9%).

Table 4: Pearson's Chi-Square Analysis Results and Descriptive Statistics

	Technology n (%)	**Non-technology n (%)**	**Totals n (%)**	**χ^2**	**P**	**Phi**
Transnational experience (overall)	185 (61.5)	22 (47.8)	207 (59.7)	3.083	.079	.094
Education experience	169 (56.1)	21 (45.7)	190 (54.8)	1.774	.183	.071
American education experience	94 (31.2)	11 (23.9)	105 (30.3)	1.012	.314	.054
Work experience	119 (39.5)	5 (10.9)	124 (35.7)	14.277	<.001	.203

Of those with transnational experience, 61.5% were technology co-founders and 47.8% were non-technology co-founders. The Pearson's Chi-Square analysis revealed, however, that this was **not a statistically significant difference** ($\chi2(1, n = 347) = 3.083$, $p = .079$, Phi = .094). Thus, technology startup co-founders are not significantly more likely to have transnational experience than non-technology co-founders and as such **hypothesis 1 is not supported by the data**.

4.1.1 Transnational Education Results

When looking at whether technology co-founders were more likely to be educated in the US compared to non-technology co-founders, this analysis revealed no statistically significant difference ($\chi2(1, n = 347) = 1.012$, $p = .314$, Phi = .054) between groups. Thus, technology co-founders were not more likely to have studied in the US compared with non-technology co-founders, and **hypothesis 2 is also not supported by the data**.

When looking at whether technology co-founders were more likely to be educated abroad (any location) compared to non-technology co-founders, our analysis also **revealed no statistically significant differences** ($\chi2(1, n = 347) = 1.774$, $p = .183$, Phi = .071).

Of the 301 technology co-founders, 56.1% (or 169/301) had the opportunity to study outside of Indonesia. Similarly, of the 46 non-technology co-founders, 45.7% (or 21/46) were educated outside of Indonesia. The level of education spans from the undergraduate to master level as well as MBA and other executive programs. Some of the most prevalent majors included economics and business administration, computer science, information systems, as well as engineering.

4.1.2 Transnational Work Results

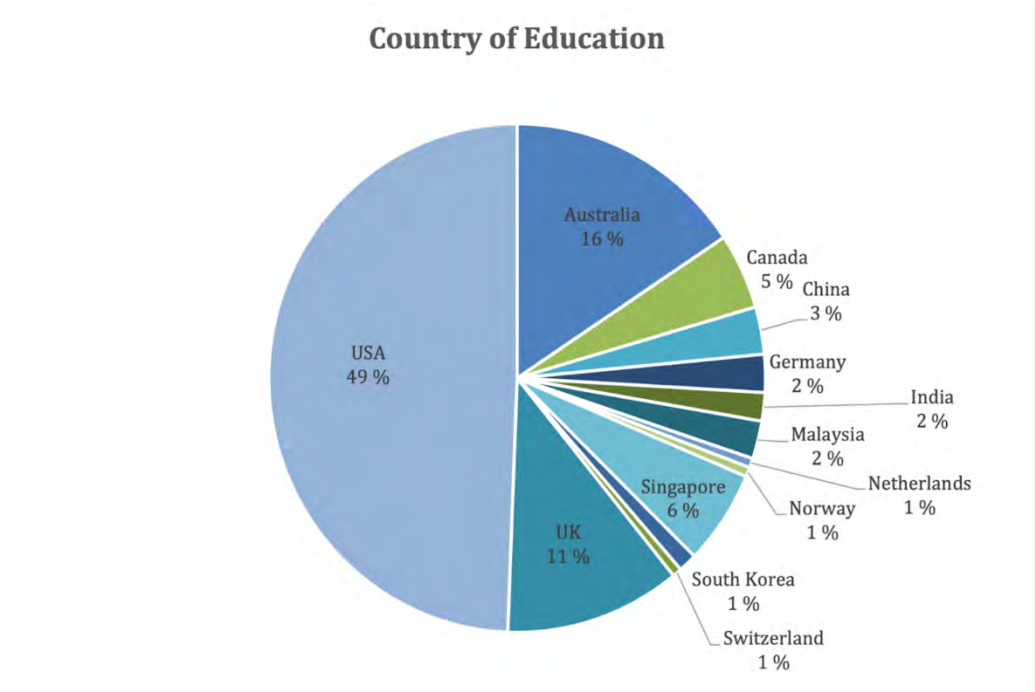
When looking at the work outcome variable, this analysis did reveal a **statistically significant difference** in the proportion of technology and non-technology co-founders who had transnational work experience ($\chi 2(1, n = 347) = 14.277$, $p < .001$, Phi = .203). Thus, while there was no difference between technology and non-technology co-founders for transnational experience more broadly, this is not the case in relation to transnational work experience.

To examine this between group difference, a binary logistic regression was undertaken to identify whether transnational work experience significantly predicts whether a co-founder is a technology or non-technology co-founder. This analysis shows that **Indonesian technology co-founders are 5.3 times more likely to have transnational work experience** than non-technology co-founders (95% CI [2.060, 13.957]), and thus transnational work experience does significantly predict whether a co-founder is technology or non-technology co-founder.

4.1.3 Location of Transnational Experience

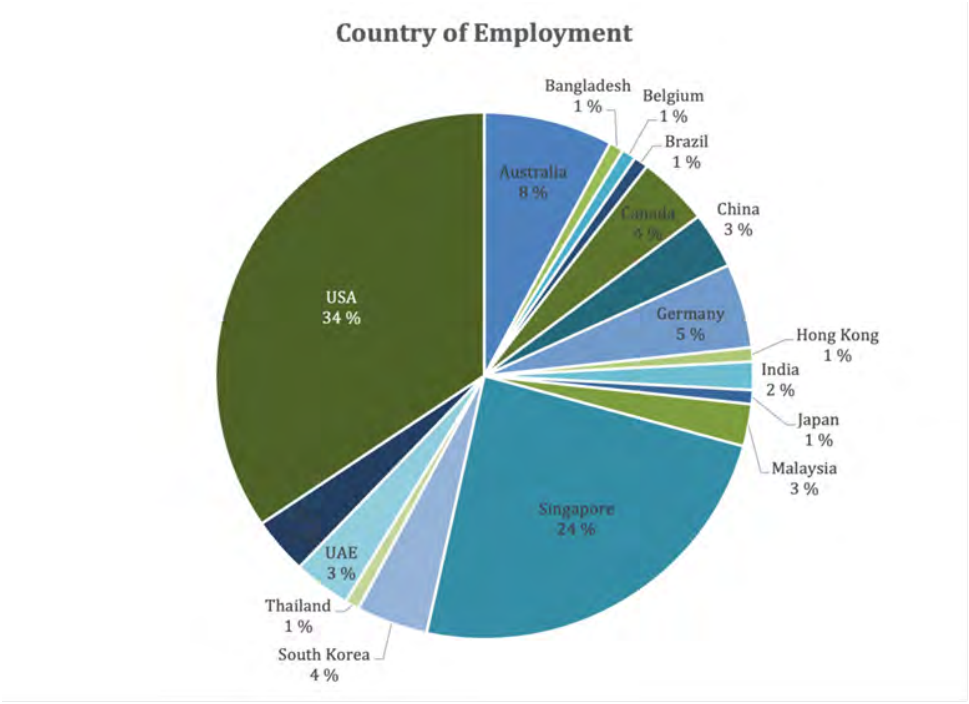
When looking at where technology co-founders with transnational education experience studied, it can be seen from Figure 2 that 49% of technology co-founders graduated from the US and 16% graduated from Australia (based on this data set).

Figure 2: Technology Co-founders by Study Destination



When looking at where technology co-founders with transnational work experience worked, it can be seen from Figure 3 that 34% of technology co-founders had work experience in the US, 24% in Singapore and 8% in Australia (based on this data set).

Figure 3: Technology Co-founders Employment Destination



4.2 Qualitative Analysis Results

Through our analysis of interview transcripts, we identified a total of **70 salient quotes** which were subject to thematic analysis (see Appendix C for salient quotes). A total of 155 units of textual data (i.e., codes), comprised of 25 unique codes, were applied to the qualitative data. Many of the quotes or passages included in our data set were long and covered multiple interrelated concepts. As a consequence, up to five codes were applied to some passages of text.

Using a deductive theory-driven approach, we initially applied a total of 18 a priori codes to our qualitative data set by focusing on the key concepts identified during our review of the academic literature. Only two factors from our original conceptual framework (see Figure 1) were not encountered at all throughout our qualitative data, namely analytical knowledge and business operations. As we became more familiar with the data and common themes emerged,

we identified an additional eight new data-driven factors, which were not included in our original conceptual framework.

Our original conceptual framework guided larger categorisations; however, the data-driven identification of new themes also informed the creation of two new categorisations. Specifically, a new psychological development category was created due to the identification of three new psychological factors: 1) perspective and open-mindedness; 2) confidence and self-efficacy; and 3) independence. Similarly, a larger external environment categorisation was also created after the identification of three factors that appear to be restricting the development of local technology co-founders without international experience: 1) cultural values; 2) government policy; and 3) homophily and discrimination. One additional human capital outcome (strategic thinking skills) and one additional effective action (i.e., strategy and business models) were also identified through our thematic analysis.

Table 5 below outlines each factor and the relevant categorisation. Frequency statistics demonstrate the prevalence of each factor across all discussions. Distribution statistics indicate how widely each factor was discussed across our four-person sample (that is the number of participants that discussed a particular factor).

Table 5: Thematic Analysis Results

Factor	**Code type**	**Distribution**	**Frequency**
Psychological development			
Perspective and open-mindedness	Data-driven	3/4	9
Independence	Data-driven	4/4	7
Confidence and self-efficacy	Data-driven	3/4	7
Passion and purpose	Theory-driven	4/4	7
Human capital outcomes			
Soft skills and intercultural competence	Theory-driven	4/4	13
Language skills	Theory-driven	3/4	6
Strategic thinking skills	Data-driven	3/4	5
Leadership and management skills	Theory-driven	3/4	4
Industry knowledge and experience	Theory-driven	2/4	3
Entrepreneurial knowledge	Theory-driven	1/4	3

Social capital outcomes			
Startup and investor networks	Theory-driven	3/4	11
Local networks	Theory-driven	4/4	9
Personal and peer networks	Theory-driven	3/4	7
Legitimacy	Theory-driven	2/4	5
Industry and professional networks	Theory-driven	2/4	4
Academic and alumni networks	Theory-driven	2/4	3
Effective actions			
Fundraising	Theory-driven	4/4	17
Opportunity recognition	Theory-driven	4/4	7
Entrepreneurial intention	Theory-driven	2/4	3
Strategy and business models	Data-driven	2/4	2
Recruiting	Theory-driven	1/4	1
Growth and scaling	Theory-driven	1/4	1
Other enviornmental factors			
Culture	Data-driven	3/4	9
Government policy	Data-driven	4/4	8
Homophily and discrimination	Data-driven	2/4	4

5. Dicussion

When interpreting our results, particularly the general finding that Indonesian technology co-founders are not statistically more likely to have transnational experience than their non-technology, it important to consider the local context.

Given that in 2017, just 16% of Indonesians had attained a tertiary qualification (OECD, 2019), the transnational experience (61.5%) and education (56.1%) rates of successful Indonesian technology co-founders is extraordinarily high, compared to the general Indonesian population. Therefore, the fact the data did not support hypothesis 1 and 2 should not be interpreted as a low rate of international experience among technology co-founders, but rather an unexpectedly high rate of transnational experience (47.8%) and education (45.7%) among non-technology founders.

In our discussion below, we will weave together insights from our quantitative and qualitative findings to help explain this phenomenon, and also explore the underlying mechanism contributing to high rates of transnational experience found generally among successful Indonesian entrepreneurs. Drawing from the key themes outlined within our qualitative analysis, we offer category-by-category explanations of interview insights and relate these back to findings within key sources of academic literature. Finally, we offer a revised conceptual framework to demonstrate how transnational experiences influences the performance of Indonesian entrepreneurs.

5.1 Transnational Education Investments

Klingler-Vidra et al. (2021) found that Vietnamese technology entrepreneurs were 35 times more likely to have a US education than non-technology entrepreneurs, advancing a ‘placed based’ theory of entrepreneurship that implies non-technology entrepreneurs are much more dependent on local knowledge and networks for success. Our quantitative research did not reveal a statistically significant difference between the transnational education experiences of technology and non-technology co-founders, with both groups possessing high levels of international education experience. The finding was unexpected. A detailed explanation for this variation between Indonesia and Vietnam is outside the scope of our report; however, our qualitative interviews suggest this discrepancy could relate to the structure of local elite networks in Indonesia.

While Indonesia and Vietnam share similarities in their current state of economic development, the two nations have markedly different political and economic histories, and different levels of economic integration with the US and other western nations. Vietnam has a relatively recent history of economic cooperation with America, with Bill Clinton first normalising relations in 1995 (US Department of State, 2021). In contrast, Indonesia's relationship with America, and its history of US-trained technocrats, dates to Suharto's pro-western New Order in the late 1960's. (Rieffel, 2008). Our qualitative research indicates that transnational education experiences in the Indonesian context may help mediate access to local elite networks, with several interviewees citing the importance of international education qualifications for demonstrating legitimacy and opening doors back in Indonesia. Therefore, our findings do not necessarily contradict the Klinger-Vidra et al. (2021) notion of non-technology entrepreneurs being place-based, but rather underscore the importance of international education qualifications for non-technology or 'place-based' entrepreneurs in the contemporary Indonesian business environment.

> *"…when I came back to Jakarta and I applied for jobs, there is a discrimination between those who studied only locally, and those who actually graduated abroad. The more competitive the role you're seeking to get, the more discriminative they are. At [large consultancy firm], there's two different class of consultants. The second class are those who studied locally, and the first class is those who have studied abroad. But again, there is this distinction, where did you study abroad? If you look back 20 years ago, when there were not so many university graduates in Asia, they would ask "do you have a degree?" And then, as time goes by, it's like, "where did you get your degree?" And then it moves to "did you get it locally or abroad?" And then "where did you get it abroad?" that kind of thing." Participant 3*

While our research found that technology co-founders were not more likely to have studied in the US than non-technology co-founders, our research did find that a high proportion of Indonesian technology co-founders were educated at American universities (31.2%). It is useful to draw comparisons between the US and Australia to understand this overrepresentation, because both countries are major exporters of education services to Indonesia. Despite Australia hosting more Indonesian students than the US, the US has educated a much higher proportion of Indonesia's foreign-educated entrepreneurs (i.e. technology = 49%; non-technology = 44%) compared to Australia (i.e., technology = 16%; non-technology = 20%). A detailed investigation of the overrepresentation of the American universities (or underrepresentation of Australian universities) among Indonesian

entrepreneurs is also outside the scope of our research; however, our one US graduate interviewee emphasised the stark contrast between the cultures of the US and Indonesia, noting that while the Indonesian education system emphasised traits consistent with a collectivist society, such as teamwork and conformity, the US system maintained a sharp focus on the individual, which instils a great focus on innovation and personal development.

> *"So, in America, everybody is, is trained to be individualistic. So, you can make your own decision, your independence. So, you being independent is one of the keystones of American education. Whereas in Indonesia, it's all about all about family. It's all about musyawarah. Even in our constitution is musyawarah. Musyawarah means everybody, let's get together and let's discuss it as a family. So that's why you see a lot of Indonesian, they always do things in a group, because that's where Indonesian culture is. Whereas in the startup world, you need to be an outlier, you have to be the guy who is in the front. And leading a battle." Participant 1*

Interestingly, the acquisition of academic or analytical knowledge through transnational experiences was not referenced at any point throughout our interviews; however, participants did mention how their studies helped them acquire other task-relevant outcomes (i.e., intercultural skills, leadership skills, strategic thinking). The task-level outcomes of international education investments appear to vary according to each co-founder. One interviewee, a graduate of an elite American university, also emphasised the value of the network he was exposed to throughout his studies. Superior networks may also help explain the superior performance of the American university system.

5.2 Transnational Work Investments

The only statistically significant distinction between Indonesian technology and non-technology co-founders occurred in respect to transnational work experience. **Indonesian technology entrepreneurs appear to be 5.3 times more likely to have transnational work experience** than their non-technology counterparts. This finding implies that technology co-founders extract additional value from transnational work experiences which specifically helps them with the creation of technology companies.

Qualitative interview data indicates that work experiences can help Indonesian technology co-founders acquire a broad range of positive human and social capital outcomes, although, again these vary widely according to the individual journey and task requirements of the

entrepreneur. Interviewees with international experiences that were unrelated to their focus industry tended to emphasise the acquisition of general management and soft skills, whereas those with directly related industry experience also emphasised the acquisition of industry related knowledge and networks.

> *"Well, obviously, being an international banker, I think that really helps in developing the network in the financial services industry, when it comes to, you know, dealing with the private equity guys, dealing with investment banks, right. So, I think that is very much relevant to where we are at, at that stage of what we're doing right now, in terms of deal size, in terms of transactions. So, I think that is something that I think, is key to the success that we're having right now." Participant 2*

> *"For me, it's another way to learn about globalisation. I feel like I need to go to Europe to understand more about international people. So, I chose there. In 2008, I went to Germany to do an internship in one of Indonesia's conglomerate factories. I went to a small city near Berlin. I worked in human resources because I wanted to understand how Germans actually work." Participant 4*

Work experiences may also contribute to entrepreneurial intention and opportunity recognition as entrepreneurs seek to leverage their international expertise and networks in their country of origin. This aligns with Shane (2000), who says that entrepreneurial opportunities are not equally obvious to all, and that those experienced professionals with prior knowledge will be best positioned to recognise entrepreneurial opportunities organically, rather than through a process of active searching.

> *"What interested me to shift from a professional standpoint, to running my own tech startup, particularly in the FinTech space, where obviously I had domain experience in that specific space, and the idea was, how I can leverage my experience, my network, to solve some of the biggest pain points in the immediate financial services sector, which is access to finance for small medium businesses." Participant 2*

A geographic breakdown of work experiences identified the US and Singapore as the most prominent destinations for international work experience. Many co-founders with American experience had worked with major West Coast technology companies (i.e., Amazon, Facebook). Singaporean experiences were more concentrated within the banking and finance sector. More generally, technology co-founders often had experiences with major multinational consulting firms and other startups and scaleups.

5.3 Psychological Factors

Arguably the most important and unexpected finding from our qualitative interviews was the central influence of socio-psychological factors – cultivated through the international experience – on the performance of Indonesian technology co-founders. Our initial literature review identified passion and purpose as a factor; however, subsequent coding of our qualitative interview data uncovered three additional psychological factors that were absent from our literature review: 1) independence; 2) open-mindedness and flexibility; and 3) confidence and self-efficacy. The importance of psychological factors was widely held among each interviewee, and each of these four psychological factors was noted by least three of the four interviewees. The sentiment of these comments implied that psychological development was central to their transnational experience, and taken together, painted a picture of a kind of 'coming of age' experience taking place abroad which ultimately underpinned the success of the entrepreneur.

A possible explanation for this finding can be drawn from Maslow's hierarchy of needs and studies of entrepreneurial psychology, with Carland et al. (1995) demonstrating that highly motivated entrepreneurs are more likely to use their ventures as vehicles for achieving self-esteem (i.e., a confidence in oneself) and self-actualization (i.e., a desire to reach one's full potential). Similarly, Turkina and Thai (2013) found that self-actualised entrepreneurs were more likely to engage in growth-oriented forms of entrepreneurship, which they attributed to a greater tendency towards personal achievement, innovation, and creativity.

> *"So, coming back, I think that also sets the tone for you to become more entrepreneurial, you want to do everything on your own, trying to also create an impact, and make yourself stand out, rather than the continuous business as usual that you're doing on a day-to-day basis. So, I think that also led to, as I mentioned, investing, how we can create impact for the small medium businesses. How can we make finance more accessible? Make it more digital. So, I think, you know, that contributed to our success, over the years." Participant 4*

Interviewees rarely attributed their psychological development directly to work or education investments, but rather, as a general consequence of time spent abroad in an unfamiliar environment. This phenomenon does not appear to be unique to Global South to North travel. Studies of American college students travelling in Europe showed that students acquired confidence, independence, and adaptability through their travels. Their personal development

was attributed to the daily demands of life, rather than participation in classes or cultural visits (Gmelch, 1997).

> *"What I learned about going abroad is that you learn about life. You go to different places alone that shape you, learn things yourself, make friends, manage your time, find your passion. That's the benefit that Indonesians who don't yet have opportunities to go abroad will never have." Participant 4*

5.4 Human Capital Factors

From our qualitative interviews, we can reason that soft skills, rather than hard skills, appear to differentiate our well-travelled entrepreneurs from their local peers. The most frequently cited human capital factor was soft skills and intercultural competence; however, unlike Holmberg-Wright & Hribar (2016), who emphasised soft skills for internal management, our interviewees linked soft skills and intercultural competence to the accumulation of external social capital, particularly with foreign investors. Our interviewees had an obvious appreciation for the fact that behaviours and communications often needed to be adjusted to suit different situations and audiences. Closely related to intercultural competence was the importance of English and other foreign language skills, which were the second most frequently cited human capital factor. Just as Shehu and Shittu (2015) suggested, language skills, together with intercultural skills, appear to provide entrepreneurs with a superior ability to build trust and rapport, and communicate their ideas and interests to stakeholders.

> *"I think when we did fundraising, depending on which country they come from, I would try to put my head in the country. For example, our first investor was a Japanese based, VC firm. Luckily because I studied a bit of Japanese, I can speak some Japanese to the Japanese manager at that time, which I don't know if that actually helped in getting the trust. When I meet American investor, or some Taiwanese investor, I tried to speak a few greetings in their language. That helps to close the gap, to connect the trust level, the power distance. So, I think having that exposure in my previous time when working abroad helped me to get close and become friends with strangers very quickly, in a way." Participant 3*

Our qualitative research also unearthed strategic thinking skills as an important factor that was previously absent from our preliminary conceptual framework. The development of strategic thinking skills, which manifest more scalable and disruptive business models, appear to be linked back to a greater sense of perspective and a more entrepreneurial mindset.

> *"And also, the business model that they develop, if you're educated abroad, they always impart upon you on this, shoving it down your throat, innovations. And, and creativities in Indonesia, are not innovation, but compliance. So, you have to follow, you have to go with the flow, yes, to do the same business that is successful somewhere else. Whereas US educated, you need to do something that is above and beyond, and different rather than make it the same." Participant 1*

5.5 Social Capital Factors

Investor networks were the most frequently mentioned social capital factor throughout our qualitative research. International experiences can allow entrepreneurs to directly build relationships with investors; however, our entrepreneurs also emphasised having the right language and intercultural skills to build rapport with international investors.

> *"So, when I did my executive education, that's where I met significant decision makers. And this is consistent with other startup founders that I know. So, for example, the CEO of [Indonesian startup], which has received $100 million in funding recently. He did his MBA in Europe, just about 5-6 years ago. And that's where he met the people who became his early funders. So, through that connection, he got the early funding. And that early funding propelled him to Series B and Series C funding." Participant 1*

Peer networks were another important aspect of the international experience. International peers helped our interviewees with a range of effective actions including opportunity identification, strategy validation and even as source of seed funding.

> *"In my case, all my seed funding came from my overseas friends. So, there is not a single Indonesian seed money in my startup, not even one penny, except for me. I'm the only one, and my co-founders. So, my cofounders have the same pedigree as me… they are once again, Singapore and Australia graduates, and they have parents who graduated from Australia. So, we got a lot of this seed money from Australia, from Singapore, from Malaysia, from Europe, these are true connections to friends." Participant 1*

Arguably the most important social capital insight from our qualitative research is the central importance of local networks for Indonesian technology founders. As already noted (see 5.1), international experiences, particularly education qualifications, appear to mediate access to Indonesia's elite business networks. All four interviewees recognised the central importance of local connections for doing business and several interviewees acknowledged that their international experiences had helped expand their local networks, either while abroad or upon

return. This enhanced access is a product of a greater sense of legitimacy that comes from living and working abroad.

> *"I haven't used my international friends because my business is very local. I haven't used my international friends to actually help me do business. So, what I can say right now, those who are already working with me are Indonesian friends that I met overseas." Participant 4*

> *"So many of them [successful Indonesian co-founders] come from that pedigree, and then they end up going to school in, in the United States or the UK. And so, if you're from that pedigree, it's not only who you know, but who knows you is a significant help. And in this country, personal connections and getting introduced will be one of the most important criteria rather than you cold calling or knocking on someone's door. And being introduced to a decision maker in a VC company significantly improves your success rate."*
> *Participant 1*

5.6 Effective Actions

Fundraising was the most frequently mentioned thematic factor in our qualitative research, which speaks to a reliance on foreign venture capital among Indonesian technology co-founders. Previous examinations of the Indonesian innovation system by the OECD suggested a weak enabling environment and an absence of property protection rights had restricted the development of a venture capital industry in Indonesia (Nugroho et al., 2013). However, the past decade has also seen Indonesia welcome a host of new venture capital funds and strengthen its position on the Venture Capital and Private Equity Country Attractiveness Ranking – rising from 55 in 2012 to 43 in 2021 (Groh et al., 2021). This implies that, with the passage of time, local venture capital will become more prevalent; however, in the meantime, local entrepreneurs without the requisite language and intercultural skills are at a significant disadvantage.

> *"When you fundraise with people coming from different parts of the world, then they know that I can speak English and they can understand it so that is already a plus. Coming from [Australian university] or different parts of the world gives them confidence that I'm a global citizen. Of course, the connections that I have – I always talk to my friends in different parts of the world just to give them some updates about what they're doing and what's happening there. This is just to have some basa basi [chit chat] with the investors. That is also a plus. Rather than just reading from global news, it is different when you actually talk with someone in Germany and exchange messages as it will give you some chemistry." Participant 4*

Even as local venture capital becomes more available to Indonesian co-founders, it appears many Indonesian technology founders may struggle to connect local investors without transnational experiences and the requisite intercultural skills because of an emerging bias towards founders with international backgrounds. This bias of homophily – a tendency of people to associate with those similar to themselves – is not unique to Indonesia. A similar phenomenon has also been observed in India, with angel investors tending to invest based on past education and employment experiences as a way of reducing information asymmetry through smoother information exchange (Venugopal, 2017).

> *"Because, again, look, I've seen so many startup founders who are much more capable than I am, to be honest, smarter than me, but they didn't get funding because the funders don't find them to be credible, and trustworthy. But they feel that towards me, because of my education, because I can communicate in English better than them. Somehow that makes a lot of difference. So, in the startup ecosystem in Indonesia, you look at all the people from [local venture capital firm], for example, virtually all of them are USA educated, right? So, you need to be in that same clique in order to get money from them. There are, of course, outliers there. But again, their journey is a lot more difficult." Participant 1*

Opportunity recognition was the second most frequently cited effective action. As noted above (see 5.2), international work experiences appear to assist Indonesian technology entrepreneurs with opportunity recognition. International peer and professional networks may also be assisting Indonesian technology entrepreneurs with the identification of new entrepreneurial opportunities, by allowing them to stay up to date on the latest trends and technological developments taking place across the world. This view corroborates studies of migrant entrepreneurs, which show that superior intercultural skills and international networks provide migrants with an increased ability to recognise arbitrage opportunities (Vandor & Franke, 2016).

> *"Most of the startup founders who are not able to go abroad, they are very conventional when they see startups. While I was getting knowledge about corporations from [large tech group], and the ideas that might work when I was living overseas. I was also having a lot of networks to communicate with my friends in Germany and other parts of the world to see whether this is also something new in different parts of the world. This gave me confidence to pursue entrepreneurship. It's not like "Oh okay I want to be an entrepreneur" but it's an opportunity after seeing different factors that happened in 2013-2014. That I might have a chance to be the first mover in the startup society in Indonesia." Participant 4*

The transnational experience was also seen as important for entrepreneurial intention, business strategy, recruiting, leading, and managing teams, and scaling; however, these views were not as frequent or widely held among the four interviewees. Business operations, an effective action identified through our literature review, was not addressed by our interviewees.

5.7 Revised Conceptual Framework

Drawing on the above analysis, we propose a revised conceptual framework to explain how transnational experiences influence the performance of successful Indonesian technology entrepreneurs. There are indications within our qualitative data that psychological factors serve as higher-order factors that might mediate acquisition of the important task-relevant human and social capital outcomes. For this reason, we have separated psychological factors and placed them at the top of our model, even though these factors can be easily argued as a component of human capital. To demonstrate this higher-order relationship, there are indications that confidence and self-efficacy help facilitate the acquisition of social capital among technology founders.

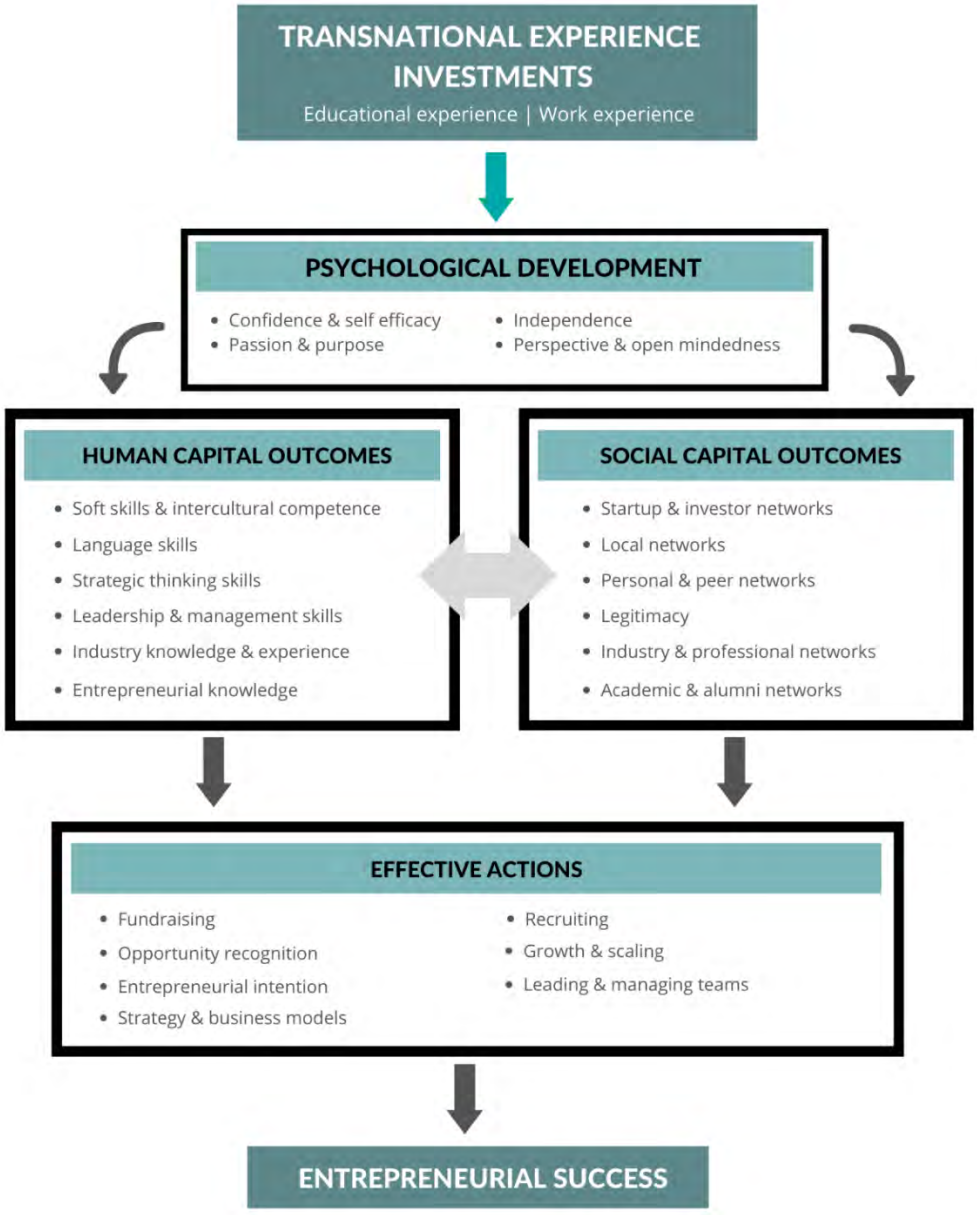
> *"So, I grew up outside, this built my character to be very open, outspoken. Most Indonesians are very shy especially when communicating in English. They get involved in discussions and even though they don't agree, they will say, "Okay, okay". They just don't want to put effort to answer in English sometimes. This doesn't happen when you have international experience. Disagreement with different people is normal. So, I think those experiences have allowed me to talk with lots of international VCs and just be myself." Participant 4*

Similarly, open-mindedness appears to serve the acquisition of intercultural skills, through the development of a greater sense of empathy for others from different circumstances.

> *"I think it's more of empathy, understanding, trying to, you know, obviously, it's a different culture, being abroad, trying to understand other people's point of view, and being able to listen more and adapt to some of the thought process or local culture within each country, right." Participant 2*

Task-relevant human capital and social capital factors, on the other hand, appear to be much more contextual, and their importance depends heavily on the unique industry demands and task requirements of each co-founder. There also appear to be many two-way interdependencies between social and human capital factors. For instance, human capital factors like soft skills are important for the acquisition of social capital. Conversely, existing social capital is often important for gaining access to human capital (e.g., industry knowledge). We also seek to reflect these interdependencies with arrows in our framework provided below. Factors in the below model are presented in order of frequency according to our thematic analysis.

Figure 4: Revised Conceptual Framework for the Influence of Transnational Experience on Technology Co-Founders



6. Policy Implications

As noted previously (see 2.2), technology entrepreneurship is linked to innovation and economic competitiveness, and is increasingly seen as a vehicle to help emerging economies avoid the middle-income trap. A deeper understanding of how transnational experiences influence the performance of technology co-founders can help calibrate local education and innovation policy settings.

Our research has uncovered several features of the external local environment which may be disadvantaging local technology entrepreneurs without transnational experience. Firstly, aspects of Indonesia's collectivist culture, with a strong emphasis on conformity and group think, could be hindering the psychological and intellectual development of its population as it relates to entrepreneurship. Secondly, a scarcity of local venture capital has created a dependence on foreign investors, which disadvantages those without transnational experience. Finally, social biases and structural features of the local business environment appear to be limiting the broader diffusion of knowledge and opportunities throughout the economy. Pustovrh et al. (2019) argue government initiatives in low-innovation economies should be focused on improving both the mindset, i.e., local attitudes towards entrepreneurship, and the toolset, i.e. the resources available to entrepreneurs.

6.1.1 Education Reforms

It is clear from our qualitative research that aspects of the Indonesian national culture are not well adapted to modern startup culture, and a local tendency towards conformity, engrained from the primary and secondary education system, may be hindering the performance of local technology co-founders. Indonesian policymakers should consider how to blend the best features of its collectivist past with the advantages of a more individualistic, American-style approach to innovation. Reforming the Indonesian education system to allow for creativity and individual expression can help equip future generations with a more disruptive mindset.

> *"By the time you get to university is too late. Your personality has already been formed. So, it's difficult, it's a lot more difficult for you to grow. So, it's at low education, where you need to develop this entrepreneurship, and innovation." Participant 1*

Our research also highlights the important role of English, and other foreign languages, for gaining access to international knowledge and networks (Shehu & Shittu, 2015). School

language programs, and particularly digital/physical collaborations with other international schools, can also help students develop intercultural skills and open their minds to a world of opportunities beyond Indonesia.

> *"I think encouraging Indonesian students to pick up not only English, but actually transforming the primary and secondary schools to provide mandatory foreign language course, is going to be key if we want to have international edge." Participant 3*

6.1.2 Enabling Environment

The national and sub-national governments of Indonesia can encourage the development of RIS through policy interventions that build linkages between innovation actors. Continued liberalisation of the Indonesian economy, particularly for high-tech foreign investment and labour, can encourage the diffusion of international knowledge and ideas throughout the Indonesian economy. Business incubator and accelerator programs are important for building these linkages and drawing resources into local startup ecosystems (Pustovrh et al, 2020). Online communities and mentoring programs can also help breakdown social and mental barriers inherent within the startup community and the national culture.

> *"I think it's always that they're quite intimidated by international exposure or competing internationally. I don't know whether that should be at the primary level or education level. There needs to be some sort of guidance, mentoring. I think this is what's not there. At the end, you need to have these types of methods to encourage young Indonesian professionals to expand, not only domestically but also abroad." Participant 2*

However, the national and sub-national governments of Indonesia must also understand the risks of government overreach and recognise their role as facilitators, rather than conveners, of local startup ecosystems. For instance, incentivising the establishment of new investor-backed accelerator programs may be more effective than establishing government backed accelerators, as research suggests that private venture investments outperform government-backed venture investments (Luukkonen et al., 2013). Similarly, attempts to address discrimination and elitism within the Indonesian startup community should focus on breaking down existing barriers, rather than vilifying or discouraging international perspectives and global citizenship.

"The number one thing the government should do is switch on your brain. It is your brain and your innovation that will be successful, they need to create a successful startup ecosystem, rather than the government saying that you have to do step 1, 2, 3, and 4, which is exactly what the government is doing. It is the opposite way of innovation and creativity, which is absolutely crucial for startups to succeed. Now, the government follows the footsteps of other countries, or the country has their own Plug and Play, they have their own Sequoia Capital. And the government will say we'll do the same. But they do it in a manner that their ecosystem is more similar to the civil servant ecosystem than what a startup ecosystem ought to be. So, you know, very prescriptive. You have to follow a lot of orders and steps in order to get your funding rather than promote creativity." Participant 1

6.1.3 Scholarship Reforms

Many existing scholarship programs, such as the Indonesian Government's LPDP program and the Australian Government's Australia Awards, require recipients to immediately return to Indonesia upon completion of the academic program. Our research indicates that the human and social capital benefits of international work experience may outstrip the benefits of international education programs. As a consequence, these immediate return policies embody an outdated 'brain drain' rather than 'brain circulation' mindset, as they deny Indonesian's the opportunity to continue expanding their horizons through paid employment opportunities.

Similarly, a singular focus on academic scholarships may not be the best way to encourage the development of an innovative economy. A new 'startup scholarship' program could be created to provide local entrepreneurs the opportunity to participate in foreign accelerator programs. Participation in these programs would allow local co-founders to validate their business models, identify mentors and mingle with foreign investors, while also getting the opportunity to develop personally from being immersed in a foreign culture and environment.

"What the Indonesian government can do is they can create a program for entrepreneurs to learn and live outside of Indonesia. Not collaborating with universities but maybe with institutions that allows them to work abroad or even validate their business ideas, not just in Indonesia but also abroad. And not only tech, but it could also be just businesses – F&B or whatever. Give them a chance to live for at least six months or more in Europe, US, Australia. See how they will get a new mindset, perspective, and new ideas and clients." Participant 4

7. Conclusion

Our research has demonstrated how two seemingly similar Southeast Asian startup ecosystems can differ greatly in the way they attract and absorb international knowledge. In stark contrast to our Vietnamese template study, there appears to be no statistically significant difference between the international experiences of Indonesian technology and non-technology entrepreneurs. We have attributed this to high levels of international education attainment among Indonesian non-technology entrepreneurs, which we believe could be a consequence of high levels of homophily inherent within elite Indonesian business circles. However, Indonesian technology entrepreneurs were 5.3 times more likely to have transnational work experience than their non-technology peers. Transnational work experiences appear to provide Indonesian technology co-founders with an edge on opportunity identification and a broad range of other task-based human and social capital factors.

Our research does not contradict Klingler-Vidra et al. (2021) and their idea of non-technology entrepreneurs being place-based. If non-technology entrepreneurs are the local specialists, then technology entrepreneurs appear to serve as 'cultural jack-of-all-trades', distinguished not necessarily by their intellect or hard skills, but by their ability to facilitate the transfer of knowledge, expertise, and capital between their extensive international and local networks. Central to their ability to do this, is a self-actualised psychological maturity, manifest by the rigours of the transnational experience and characterised by high levels of passion, confidence, independence, and open-mindedness.

We present a conceptual framework to demonstrate how transnational experiences influence the entrepreneurial performance of Indonesian technology co-founders. Finally, the policy implications of our research include recommendations for recalibrating local education and innovation policy to strengthen entrepreneurial outcomes and equality.

7.1 Limitations

We recognise a number of limitations inherent within our research and offer. An explanation of these limitations and mitigation approaches taken is provided below.

7.1.1 Data Accuracy and Completeness

While every attempt was made to compile an accurate data set there may be cases where data was inaccurate or incomplete. For example, when researching the background of co-founders of Indonesian startups from the technology data set, it became apparent the extracted information from Crunchbase contained several inaccuracies these co-founders. As it is common for companies to have at least two co-founders, Crunchbase's database often fails to match the profiles of some co-founders with the official sources that can normally be found on their company websites. More in-depth research from LinkedIn, media coverage, as well as Wikipedia would sometimes still omit some of the apparent co-founders.

Finding information about the founders and co-founders from the non-technology data set proved to be a challenge as Investing.com does not have a database as extensive as Crunchbase. Many of the high-performing non-technology companies have become long-standing firms that were set up at least 10 years prior, so they tend to not list their co-founders on their website as opposed to the technology data set (normally co-founders are old or have passed away, so they are not the current CEOs or part of the board). Searches to third party websites (not LinkedIn) were thus undertaken but sometimes information on their profile was incomplete.

7.1.2 Population Size and Sampling Bias

A significant limitation of our qualitative research was the size and nature of the population under investigation. We had originally sought to attract a minimum of six interview participants for qualitative interviews; however, the time poor nature of technology entrepreneurs made it difficult to secure participant in our research. As a result, we carefully curated the set of interview questions to maximise the allotted interview time.

Although the sample size for the non-technology group is small, it was chosen on the basis of the filters from the Vietnamese study. With only 46 non-technology co-founders compared to

301 technology co-founders, it is difficult to say whether the sample is representative of the population. Thus, we cannot generalise our results for the non-technology group.

A further limitation of this research may be that those entrepreneurs who consented to participate in the interviews may possess a degree of self-actualisation and enthusiasm for the topic, potentially resulting in a biased sample (or a sample with similar qualities and motivations). This may have in turn resulted in an overemphasis on the psychological factors associated with self-actualisation that were identified by the participants as key factors obtained through their transnational experiences that influenced their entrepreneurial careers.

7.2 Future Research

Given the small interviewee sample size, future research could be undertaken to test whether similar qualitative findings regarding the development of psychological factors through transnational experiences could be found in a larger sample of entrepreneurs. Similarly, this finding could also be tested quantitatively (for statistical significance) through a survey methodology (as was initially envisaged for this research). Special emphasis should be placed on participant recruitment given the low survey response rate experienced throughout this research, as a consequence of the time-poor nature of the target population.

Future research may also consider exploring the relationship between transnational experiences and psychological development for entrepreneurs from other developing nations to test whether this finding in the Indonesian context can also be found in other like nations.

As many of our interviewees cited the universal psychological benefits of travel (i.e., open mindedness, independence, confidence) rather than specific features of Global South to North travel, future research may also consider investigating the influence of travel experiences on technology co-founders from the Global North.

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Appendices

Appendix A: Interview Script

“Thank you again for agreeing to chat with us. The purpose of our interview today is to understand how your international experiences influenced your career as an entrepreneur.

We have a standard list of 14 questions that we will ask today. The interview should take approximately 45 minutes. If we have additional time at the end of the meeting, we may ask some follow up questions.

Before we start, we need to confirm that we have your permission to record and transcribe this interview today and to use this data for our published research. You are also free to revoke this consent at any time after the interview.

Do you consent to this? And if so, would you like your name and other identifying information to be anonymised from our final published research?

Do you have any other questions before we start the interview?”

Appendix B: Quantitative Raw Data (SPSS output)

Analysis 1: Techn / non-tech * International experience

			International experience		Total
			No International Experience	International Experience	
Techn / non-tech	non-tech	Count	24	22	46
		% within Techn / non-tech	**52.2%**	**47.8%**	100.0%
	tech	Count	116	185	301
		% within Techn / non-tech	**38.5%**	**61.5%**	100.0%
Total		Count	140	207	347
		% within Techn / non-tech	**40.3%**	**59.7%**	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	3.083[a]	1	.079		
Continuity Correction[b]	2.542	1	.111		
Likelihood Ratio	3.028	1	.082		
Fisher's Exact Test				.106	.056
Linear-by-Linear Association	3.074	1	.080		
N of Valid Cases	347				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 18.56.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.094	.079
	Cramer's V	.094	.079
N of Valid Cases		347	

"Pearson's Chi-Square analysis indicated that the percentage of business owners with international experience and non-international experience did not significantly differ between the tech and the non-tech groups, $\chi^2(1, n = 347) = 3.083$, $p = .079$, $Phi = .094$."

Analysis 2: Techn / non-tech * International education

			International education		Total
			No International Education	International Education	
Techn / non-tech	non-tech	Count	25	21	46
		% within Techn / non-tech	**54.3%**	**45.7%**	**100.0%**
	tech	Count	132	169	301
		% within Techn / non-tech	**43.9%**	**56.1%**	**100.0%**
Total		Count	157	190	347
		% within Techn / non-tech	45.2%	54.8%	100.0%

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.774[a]	1	.183		
Continuity Correction[b]	1.375	1	.241		
Likelihood Ratio	1.765	1	.184		
Fisher's Exact Test				.205	.121
Linear-by-Linear Association	1.769	1	.184		
N of Valid Cases	347				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 20.81.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.071	.183
	Cramer's V	.071	.183
N of Valid Cases		347	

"Pearson's Chi-Square analysis indicated that the percentage of business owners with international education and non-international education did not significantly differ between the tech and the non-tech groups , $\chi^2(1, n = 347) = 1.774$, $p = .183$, $Phi = .071$."

Analysis 3: Techn / non-tech * International employment

			International employment		Total
			No International Employment	International Employment	
Techn / non-tech	non-tech	Count	41	5	46
		% within Techn / non-tech	**89.1%**	**10.9%**	**100.0%**
	tech	Count	182	119	301
		% within Techn / non-tech	**60.5%**	**39.5%**	**100.0%**
Total		Count	223	124	347
		% within Techn / non-tech	64.3%	35.7%	100.0%

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	14.277[a]	1	<.001		
Continuity Correction[b]	13.056	1	<.001		
Likelihood Ratio	16.785	1	<.001		
Fisher's Exact Test				<.001	<.001
Linear-by-Linear Association	14.236	1	<.001		
N of Valid Cases	347				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 16.44.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.203	<.001
	Cramer's V	.203	<.001
N of Valid Cases		347	

"Pearson's Chi-Square analysis indicated that a significantly higher percentage of tech owners had international employment history compared to non-tech business owners, $\chi^2(1, n = 347) = 14.277$, $p < .001$, $Phi = .203$."

Analysis 4: Techn / non-tech * American education

			American education		Total
			Non-US Education	US Education	
Techn / non-tech	non-tech	Count	35	11	46
		% within Techn / non-tech	76.1%	23.9%	100.0%
	tech	Count	207	94	301
		% within Techn / non-tech	68.8%	31.2%	100.0%
Total		Count	242	105	347
		% within Techn / non-tech	69.7%	30.3%	100.0%

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	1.012[a]	1	.314		
Continuity Correction[b]	.695	1	.404		
Likelihood Ratio	1.052	1	.305		
Fisher's Exact Test				.390	.204
Linear-by-Linear Association	1.009	1	.315		
N of Valid Cases	347				

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 13.92.

b. Computed only for a 2x2 table

Symmetric Measures

		Value	Approximate Significance
Nominal by Nominal	Phi	.054	.314
	Cramer's V	.054	.314
N of Valid Cases		347	

"Pearson's Chi-Square analysis indicated that the percentage of business owners with American education did not significantly differ between the tech and the non-tech groups , $\chi^2(1, n = 347) = 1.012$, $p = .314$, $Phi = .203$."

Appendix C: Qualitative Data (salient quotes)

Coding key

Longer form code	**Abbreviated code**
Academic and alumni networks	AAN
Confidence and self-efficacy	CSE
Cultural values	CV
Entrepreneurial intention	EI
Entrepreneurial knowledge	EK
Fundraising	FR
Government policy	GP
Homophily and discrimination	HD
Independence	IND
Industry knowledge and insights	INKI
Industry networks	INET
Language skills	LANG
Leadership and management skills	LMS
Legitimacy	LEG
Local networks	LN
Opportunity recognition	OPR
Passion and purpose	PP
Personal and peer networks	PNET
Perspective and open-mindedness	PO
Recruiting	REC
Scaling	SCA
Soft skills and intercultural competence	SSIC
Startup and investor networks	SIN
Strategic thinking	ST
Strategy and business models	SBM

Salient quotations

Participant	Code	Quotation
P1	CV ST	And also, the business model that they develop, if you're educated abroad, they always impart upon you on this, shoving it down your throat, innovations. And, and creativities in Indonesia, not innovation, but compliance. So, you have to follow, you have to go with the flow, yes, to do the same business that is successful somewhere else. Whereas US educated, you need to do something that is above and beyond and different rather than make it the same.
P1	LMS SSIC	And in terms of human capital, you develop that. And a lot of successful startup founders have been developed to be a quarterback, meaning that it is not just their individuality. But how do you work in a team? And how do you inspire others? And how do you delegate? How do you make people want to fight for you and listen to you, and when you say, "Okay, I have the ball, I want you to run to the endzone, and you have to trust me, so I'm going to deliver the ball to you, all you have to do is catch the ball and touchdown score." So, you have that well developed in your freshman and junior years, pretty much. And then when you graduate, you come out as a person with that quality, human capital. And that actually equipped you with all that you need to succeed in the startup world in Indonesia.
P1	EK	And why the United States? Mainly because my parents went to school in the United States, so I just followed in their footsteps. So had they gone to the UK or Australia I probably would have gone there. So that sets my case for others, my peers, other startup founders, who decided to study in the United States because you know, they recognise the United States has been the most competitive education providers in the world and the best innovation. So the best founders always seek out the best university to get their education. So it's a cycle.
P1	IND CV CSE LMS	Having been educated abroad, depending on the school that you go to, of course, where you are, you are put in a very rigorous program, where your individuality must come out, right. So, in America, everybody is, is trained to be individualistic. So, you can make your own decision, your independence. So, you being independent is one of the keystones of American education. Whereas in Indonesia, it's all about all about family. It's all about musyawarah. Even in our constitution is musyawarah. Musyawarah means everybody, let's get together and let's discuss it as a family. So that's why you see a lot of Indonesian, they always do things in a group, because that's where Indonesian culture is. Whereas in the startup world, you need to be an outlier, you have to be the guy who is in the front. And leading a battle. US education gives you that, it's all about if you look at Bill Gates and Steve Jobs, if a person is not a group of person that is the lightning rod, or the sharp end of the spear for a lot of successful startups, in terms of human capital, being educated abroad, you develop that, that independent, you become more outgoing.
P1	FR LEG SIN LANG	I noticed that a lot of the startups who were successful in fundraising, the founders have very similar backgrounds to me. So, they have overseas education, predominantly US educated. And it kind of dawned upon me that they were successful, not only because they have the entrepreneurship and the skills from the US education, but because many VCs prefer to work with them. Okay, so a lot of these VCs are from the United States. So, when they come to Indonesia and need founders who have been educated in the United States, there's a lot of rapport and chemistry immediately developed. And you

		know, the English language is actually quite important to improve that, that chemistry. So that's number one. So English familiarity with the US, made me become more confident.
P1	LANG CSE FR SSIC PP	I would not have the confidence, I would not have the confidence. So, confidence is almost 80% of your success. I've seen many startup founders who are smarter than me, more much more educated than me. But they don't have the confidence. So let me give you an example. I met a startup founder who is in the health sector, this is before the big health startups achieved significant growth. This is like five, six years ago. So, this startup, the founders, a health-related startup, very smart people, but when they appear before funders and VCs, they lacked the energy and the communication skills to persuade the funders, just because, you know, English is an issue number one, number two, they don't feel that they are up to the same par of startup founders who are from Stanford University, for example. So, when you look at all the health startups that made it, you can see a pattern, there are many Stanford graduates, many of them from Berkeley and, and whatnot. So that's to answer your question. Absolutely. So, when you, when you have the the US degree, it gives you the confidence to move forward, even though you're not necessarily better than others who don't have the US education?
P1	FR PNET SIN	In my case, all my seed funding came from my overseas friends. So, there is not a single Indonesian seed money in my startup, not even one penny, except for me. I'm the only ones and and my co-founders. So, my cofounders have the same pedigree as me. That whole my co-founder has graduated from the UK master's degree. My other co-founders were Europe from Australia and Singapore, they are one again, Singapore and Australia graduates, and they have parents who graduated from Australia. So, we got a lot of this seed money from Australia, from Singapore, from Malaysia, from Europe, these are true connections to friends.
P1	LN LEG HD SIN	In the startup world, there are two things that stands out, right, your paper qualification and your network, you must have those two. So, your paper qualification will say, like, you graduated from Berkeley, or Stanford, that will stand out. In fact, one of the startup marketplaces, or the Indonesian version of CrunchBase, I forgot what it's called, again, where they actually score startups by looking at the founders, and they give higher scores for founders that are educated in the United States. So, to me, that's a little bit elitist, and unfair. But that's that's what they do. If you have a bachelor's degree from the United States, you get a score of 10. But if you are locally educated, you get five. If you have a master's degree, you get a score of 20. Especially if you're from Stanford, Ivy League, or MIT, then you get an even higher score. That's how they do it. The second is who you know, but not just who you know, but who knows you. You can say, Oh, I know [venture capital firm]. I know [person]. I know this guy or that guy. But do they know you is very important. And many of the successful founders, if you look at their pedigrees, they're already in that same category as the decision makers in VC companies in Indonesia.
P1	LN	It's a combination of both. In the startup world, startup founders, funding the entire startup ecosystem is very elitist. Okay, it's very, very elitist. You need to be a member of some sort of fraternity. People are very, very gengsi is the word ya, Indonesian word.
P1	OPR	Okay, so international experience gives you the abilities to do two things. Number one, you get more experience, you get more information, more examples of entrepreneurial success. Number two, it

		gives you the confidence that you have the information and you can do better, right? So, someone who has never been abroad do a startup in Indonesia may only have the internet as a way to get information without actually being there, it's not the same, right? So, let's say you can browse the internet and, and know what it's like to be in New York City. But that is different from actually being there, right, you don't smell it, you don't feel the energy, you don't feel people bumping to you. You don't you don't hear the silence of the police, police cars and so on. Very different from what you can learn from the internet. So, by being abroad, you have the experience that you can compare with Indonesia, you have new innovation that you actually experience in person in that other country that you bring to Indonesia, and then you compare that experience with the situation in Indonesia.
P1	OPR SBM FR	So, for my situation it's about data. Okay, so my startup is all about data. In America, data is worth more than gold. But not yet in Indonesia, right? In Indonesia, people don't see that. But so, I bring that experience to Indonesia. And the VC and the funders, they agree with me because they know the value of data in other countries. And when they come here, they say, okay, so you have the data that's very valuable. We agree to invest in you.
P1	GP	So, if the government could help founders development, human capital, yes, but the enabling environment have to be made easier for startup founders.
P1	HD FR LN SIN	So many of them [successful Indonesian co-founders] come from that pedigree, and then they end up going to school in, in the United States or the UK. And so, if you're from that pedigree, it's not only who you know, but who knows you is a significant help. And in this country, personal connections and getting introduced will be one of the most important criteria rather than you cold calling or knocking on someone's door. And being introduced to a decision maker in a VC company significantly improves your success rate. So, you need to have someone that knows someone at Sequoia Capital, someone who went to school with them in Stanford and can introduce you, you need to know other startup founders that have received significant funding and have that startup founder introduce you to the VC company. So that person must have confidence in you that he's willing to introduce you and vouch for you. So that requires the crucially important decision makers to know you, rather than you know them.
P1	GP	So, they can start with universities, okay, so it's good that Nadiem is the minister for education, because that's where it needs to start. It's at primary and high school, rather than university, by the time you get to university it's too late. Your personality has already been formed by the time you get to university. So, it's difficult, it's a lot more difficult for you to grow. So, it's at low education, where you need to develop this entrepreneurship, and innovation.
P1	FR HD SIN LEG	So very cliquey bunch of people, right. So, if you have the requisite education, you've been to the United States, they almost give you the right to succeed. If you don't have it, it's a lot more difficult for you. I don't know how else to explain it. For me, it becomes easy, a lot easier. Because, again, look, I've seen so many startup founders who are much more capable than I am, to be honest, smarter than me, but they didn't get funding because the funders don't find them to be credible, and trustworthy. But they feel that towards me, because of my education, because I can communicate in English better than them. Somehow that makes a lot of difference. So, in the startup ecosystem in Indonesia, you look at all the people from [local venture capital firm], for example, virtually all of

		them are USA educated, right? So, you need to be in that same clique in order to get money from them. There are, of course, outliers there. But again, their journey is a lot more difficult.
P1	FR AAN SIN	So, when I did my executive education, that's where I met significant decision makers. And this is consistent with other startup founders that I know. So, for example, the CEO of [Indonesian startup], which has received $100 million in funding recently. He did his MBA in Europe, just about 5-6 years ago. And that's where he met the people who became his early funders. So, through that connection, he got the early funding. And that early funding propelled him to Series B and Series C funding
P1	FR AAN SIN	So, I did an executive education at MIT. A few years ago, from there, I met one of the directors of one of the VC companies based in Singapore, that actually linked me up to that company where I received funding. And also because of my international education, if you look at my CV, I worked for the World Bank. That was a mandatory prerequisite at the time.
P1	CSE PP	So, I went to numerous events sponsored by… it could be plug and play Antler, Sequoia, they all have these events, right? So, they put the investors up on stage, and they give presentations. And then they open the floor for questions, right? Everybody that put up their hands, they're all US or UK or Australian graduates, right? They're the ones like "Oh!" whereas all the others, they end up at the back, the locals from Surabaya, from Medan. And they're all in the back. And they don't come forward because, well, in Indonesia, if you go to local university, it's all about discipline and compliance. It's all about "Iya pak", "Setuju pak", "I agree with you sir", "Yes sir", "Thank you sir". They are very good at doing that. Whereas that is not the quality that is important to succeed in a founder. Founders must be willing to fight, kick down doors, be a little bit rude in order to get the attention of the right people and say, "Hey, you, my startup is the best startup, please invest and trust me", in order to have that in you. Whereas if you're educated in an environment when you are asked to be to do the opposite of that, it's really difficult.
P1	GP	Startup founders, the number one thing the government should do is switch on your brain. It is your brain and your innovation that will be successful, they need to create a successful startup ecosystem, rather than the government saying that you have to do step 1, 2, 3, and 4, which is exactly what the government is doing. It is the opposite way of innovation and creativity which is absolutely crucial for startups to succeed. Now, the government follows the footsteps of other countries, or the country has their own Plug and Play, they have their own Sequoia Capital. And the government will say we'll do the same. But they do it in a manner that their ecosystem is more similar to the civil servant ecosystem than what a startup ecosystem ought to be. So, you know, very prescriptive. You have to follow a lot of orders and steps in order to get your funding rather than promote creativity.
P1	EK SSIC FR SIN	The second part is entrepreneurship. So, when I look at my background, upon graduation, I immediately worked for a company where entrepreneurship is the most important skill. And I learned that in the United States, which I feel is a much more competitive entrepreneurship environment compared to Indonesia. So that immediately improved my confidence. However, I have to tell you that in Indonesia, the market is very different. So, you, if you bring in entrepreneurship skills from the United States, and try to implement that in Indonesia, you may not be successful. When you will be successful in is in your fundraising, because a lot of these VCs are from America or they are educated in in America, and you will explain it from their context.

P1	SBM EK SSIC CSE	When I compare founders who are locally educated versus founders who are educated abroad, I can see a difference in the way they put together their business model, and the way they communicate their business models by their pitch deck. It's a clear difference. Local founders tend to be 'one word' is the word that I use here. Indonesians when they communicate, they tend to use double negative, right so they don't say directly what they want, they don't say, "please give me half a million dollars so that I can grow my startup and be successful". They don't say that. They will say things like, oh, this startup has potential. Why don't you invest in me? So "why don't you", it's a negative way to say things that you want.
P2	FR LMS ST	I think if I look back, I think, obviously, the professional experience has a lot more impact and a lot more relevancy to building as an entrepreneur. That's my experience, based on my personal experience. Again, I think it's a matter of management skills, it's a matter of strategic thinking. It's a matter of executing, right? And then lastly, it's communication. Right? I think that's key to get your message across and to make others understand what you're doing, what your business does, and how you can appeal to them. Particularly if you're fundraising for investors. Right. I think that's something that's very relevant to my professional experience, as opposed to my education. I think education always builds the basic foundation, basic skill sets. But I think you know, as an entrepreneur, you would need a bit of more, I would say hustle, in getting things done a bit. And I think that it's a good combination to have. Obviously, it's an ideal combination, having that international education, exposure, but at the same time, I think I put a lot more weight on professional international experience.
P2	GP	I think it's always that they're quite intimidated by international exposure or competing internationally. I don't know whether that should be at the primary level or education level. There needs to be some sort of guidance, mentoring. I think this is what's not there. At the end, you need to have these types of methods to encourage young Indonesian professionals to expand, not only domestically but also abroad.
P2	ST INET	I think it's more in terms of strategic thinking. In terms of looking at organic opportunities, international exposure definitely helps. Connecting with international networks and mentors. I think that's one of the keys that helped me. I think mentorship programmes are always very important. Especially for young, aspiring entrepreneurs. So, I think those are some of the critical factors that I attributed to helping me scale industry to where it is right now.
P2	PO SSIC	I think it's more of empathy, understanding, trying to, you know, obviously, it's a different culture, being abroad, trying to understand other people's point of view, and being able to listen more and adapt to some of the thought process or local culture within each country, right. And obviously being in for example, Dubai, you are in an international city, you interact with different citizens. So obviously, you need to adapt to their thought process, their point of view
P2	SCA	If you talk about a startup, or a successful startup, I think it's possible. But scaling up a startup, I think it's a different level. And in terms of where we are as a company now, in terms of our growth, I would say obviously, that's something that I would not have imagined had I not had any experience abroad or, you know, as a professional abroad? I think that's my view.

P2	FR SSIC ST	Okay, so I think, working abroad, I think you have a better understanding, on a professional level, how to communicate, how to strategically position yourself in the eyes of, let's say, foreign investors. That's key. Right? You develop a sense of what excites them. Right? And how do you work together with them? How to, how do you get your ideas, or thoughts across? To, to the international audience? I think that is key. Right? I think that is related to the experiences I've had working abroad, dealing at different levels within the corporate world, right? Obviously, you need to convince, you need to ensure that people get to understand what you're doing, get your point across, and be able to execute.
P2	IND PP	So, coming back, I think that also sets the tone for you to become more entrepreneurial, you want to do everything on your own, trying to also create an impact, and make yourself stand out, rather than the continuous business as usual that you're doing on a day-to-day basis. So, I think that also led to, as I mentioned, investing, how we can create impact for the small medium businesses. How can we make finance more accessible? Make it more digital. So, I think, you know, that contributed to our success, over the years
P2	LN	That social capital angle, especially in Indonesia, where you need to have that network, you need to build that network. You need to speak to the right people to ensure they're able to understand and to speak to the key decision makers. And in growing your business.
P2	FR SIN INKI	Well, obviously, being an international banker, I think that really helps in developing the network in the financial services industry, when it comes to, you know, dealing with the private equity guys, dealing with investment banks, right. So, I think that is very much relevant to where we are at, at that stage of what we're doing right now, in terms of deal size, in terms of transactions. So, I think that is something that I think, is key to the success that we're having right now.
P2	EI OPR INKI INET	What interested me to shift from a professional standpoint, to running my own tech startup, particularly in the FinTech space, where obviously I had domain experience in that specific space, and the idea was, how I can leverage my experience, my network, to solve some of the biggest pain points in the immediate financial services sector, which is access to finance for small medium businesses.
P2	SBM INET	Yeah, I think, my ex-boss, that I used to work for, that I used to report to when in a multinational bank. So obviously, that helps, as I said, you know, bringing in an international perspective, I think, provided me with guidance in the early days of [startup name]. And I think just to validate some of the strategies that I've thought about, strategy validation is obviously very important. As an entrepreneur in general, so you don't avoid any, or you don't go through a lot of trial and errors. You know, I think that's, that's key strategy validation.
P2	IND	You become more entrepreneurial, right? You become more of a self-starter, you become more proactive, because you are on your own. And you're trying to develop your own career in another country, basically.
P3	CV PO	Experimenting is not encouraged. We have this ego where you don’t want to look bad, or you don’t want to make mistakes. When people go to Silicon Valley and say, “I have built three startups and failed”, people are going to be like “Well done, mate. You can do better in your fourth or fifth” but in Indonesia, if you fail in one venture, people are going to be like “What a loser. It's totally useless. Why don’t you go work in a bank or something? Don’t waste your time to pursue your dreams”.

P3	PP CSE	Having that exposure abroad gave me that power to dream – you can be anything. That's why a lot of those foreign educated tech founders decide all those crazy things.
P3	LANG GP	I think encouraging Indonesian students to pick up not only English, but actually transforming the primary and secondary schools to provide mandatory foreign language courses is going to be key if we want to have an international edge.
P3	HD LEG LN	I think having the international reference is very helpful. Because when I came back to Jakarta and I applied for jobs, there is a discrimination between those who studied only locally, and those who actually graduated abroad. The more competitive the role you're seeking to get, the more discriminative they are. At [large consultancy firm], there's two different class of consultants. The second class are those who studied locally, and the first class is those who have studied abroad. But again, there is this distinction, where did you study abroad? If you look back 20 years ago, when there were not so many university graduates in Asia, they would ask "do you have a degree?" And then, as time goes by, it's like, "where did you get your degree?" And then it moves to "did you get it locally or abroad?" And then "where did you get it abroad?" that kind of thing. So, it definitely helped me to have a small edge over the other competitors when I was applying for jobs.
P3	LANG SSIC	I think picking up foreign language is also very helpful to gain trust and to let the other party know that you appreciate their background. So, I think when we did fundraising, depending on which country they come from, I would try to put my head in the country. For example, our first investor was a Japanese based, VC firm. Luckily because I studied a bit of Japanese, I can speak some Japanese to the Japanese manager at that time, which I don't know if that actually helped in getting the trust. When I meet American investor, or some Taiwanese investor, I tried to speak a few greetings in their language. That helps to close the gap, to connect the trust level, the power distance. So, I think having that exposure in my previous time when working abroad helped me to get close and become friends with strangers very quickly, in a way.
P3	GP LANG	I think the current government is or has done quite a lot. First of all, they have permitted a lot of foreigners to come to Indonesia using visa on arrival. That increases the number of foreign tourists and that is good for our hospitality industry. They are also providing scholarships to Indonesian students to study abroad. I think those two actions the Jokowi government has done are positive towards internationalising our students. But the challenge of getting international exposure first requires a student to actually speak the foreign language.
P3	PO SSIC	I think the different perspectives of people that I met, that I hang out with, and also the way people do things, which are very different in each company, let alone in each city or in each country, gave me the ability to connect with people from those places. And that is an edge that I find very useful.
P3	PNET PO	I think the discussions that I had with my classmates gave a lot of ideas and perspectives. When I was doing my undergraduate in the UK, my typical class was about 60 students. And out of that 60, there were 58 different nationalities. Living in an international city like in the UK, you get that exposure. And then when I did my master's, in a suburb of [city], going south, it was not that extreme. But still, there was a high level of international perspective, like a lot of Thai, Greek, Korean and even Swedes, so we had an exchange with a Swedish University at that time. So, I think having that peer-to-peer learning gave me a lot of insight, not just reading the theories from the textbook, I mean, you can pick

		up any textbook anywhere, but more learning about their individual experience, and how they go through life, which is quite different if you study in Indonesia. I was curious about the experience of taking a degree in Asia. That's why I decided to do my PhD here. And it's a lot more homogenous. There were no foreigners in my PhD class. All the lecturers were almost 99% Indonesian.
P3	PP EI IND	I think the motivation of achieving dreams – that's what we can when go abroad. Hopefully, when you are in Norway, getting time to think and ponder, and stargaze "what is the meaning of life?" that's something we don't really get in Indonesia. We are more encouraged to become employees of a big company or become a state employee.
P3	LMS PO CV	I think, working in different industries, in different countries, in different companies, you get exposed to different ways of doing things. You get to pick up leadership skills, which are different. And also, the ethics which are different. I mean, if you're working with Koreans, it is very different to the way you work with Indians or Chinese or Malay, right. And those are the things that I can pick and choose which one to repeat, and which one not to repeat. And I am also was very fortunate enough to have been able to work in reasonably good companies. At [large consulting firm], I picked up a lot of stuff there learning as a consultant. I worked at the telco company in the UK, I worked in small private equity in Asia and so on. So, I think I was really fortunate that I was able to learn from different bosses from different backgrounds.
P3	OPR EI PP	I was inspired by a speech by Tom Friedman, a New York Post columnist, where he said that if you want to be a powerful country in the world, you have to have strong economy, and strong economy comes from strong industries and a strong industry comes from strong companies in the industry. And a strong company comes from strong employees and the strong employees comes from strong higher education system. I saw the opportunity in Indonesia because I was accidentally working as an academic at [Indonesian University] while trying to finish my PhD. And I realised that the Indonesian higher education level is way behind our neighbours. Forget Singapore, forget Malaysia, forget Philippines, even Timor Leste/East Timor, we are lower in terms of the percentage of registered workers. Out of 150 million registered workers in Indonesia, only about 8% have a bachelor's degree. Forget about masters and PhD, only 8% which is about 9 million people have a bachelor's degree. In East Timor the number is about 11%, in Singapore it is around 55%, in South Korea it is 82%. So, we will never be able to catch up with our neighbours if we don't fix our higher education. And I saw the space. Nobody really cares about these universities in going to the next level. While I was at [Indonesian University], I was running the online [business programmes] and I was asked by our dean to launch an online version of the [business programme]. And that's where I got the idea if I can do this for [Indonesian University], I can do it for the other 4800 universities in Indonesia and that's why I keep on talking to people about this idea of democratising quality affordable education. That's how we came up with [Indonesian ed tech company], actually over a barbecue with a friend's friend.
P3	PO	It would be difficult. Because one thing I appreciate working in different countries is the understanding of different perspectives of how the world sees things. Also, the different pace of change in terms of technology transformation and people's expectations. So, I think it would be a bit hard for me if I did not get this international experience.

P3	CV	Like I mentioned previously, a lot of the business practices that I was exposed to, out of the business ethics and way of doing business was very important to replicate here. Because as you probably have experience in Makassar, where you did your time there is very different. The way you do business is very different compared to when you're in Australia, for example, we don't have a fair dinkum system like in Australia, that's really important to be fair dinkum. So, I think the best practices and business ethics were the things that I can use to differentiate us from other companies.
P3	AAN LEG	Not really. I have a network of alumni. I'm the alumni representative of my bachelor's programme but did not really have any significant value in terms of contribution at all. It's just a brand that I can put on "I'm a graduate of this school". But even then, that's a big help, because at least you graduate from a reasonably well-known school like that. But in terms of funding or in terms of other things, not really.
P3	FR INET REC	On the other hand, if you do not know anything, it's also a big challenge like my colleagues from different companies provide me with links to people who can act as advisors or supporters or even employees. So, I think having the network is important, and having the know how is also important. Especially when you are going into more the maturity stage of the company, when you have to do fundraising, when you have to go and develop partnerships, you do need to have people who can recommend you to other people.
P3	GP IND CV	The way we are taught in Indonesia is more about regurgitating stuff. Even the questions that we're asked in my primary school are not really thinking kind of questions. It's like yes, no, maybe, not like "Tell us your opinion about this particular topic". I find this reflected in my students now as I'm teaching in the undergraduate level. Even my previous master's students are afraid to voice their opinions. They're not taught to think creatively. They're just taught to memorise stuff. This contrasts sharply with education in the US or the UK. Kindergartens in the UK are taught to share their experiences "What did you do last weekend? Please go to the front of the class and explain what your weekend was like" That's public speaking at a very early age. Even in the classroom, we are taught to see particular problems and given the chance to argue our opinions. That's not the case in the Indonesian context. A lot of the workforce that we see is basically waiting to be told what to do. If you have an army of 'tell me what to do' people then you're not going to create any innovation or new ideas. That's one thing that is challenging in the Indonesian context.
P4	SIN	Another lucky break for me is one of the biggest incubators in Indonesia, held by the biggest telco company. Every Tuesday, Wednesday, or Thursday, they always organise events. They would bring speakers from startup scenes, VC, or startup founders like Tokopedia, Bukalapak, which at that stage were not as big as they are now. I was eager to learn about it. I went there every day, every night to make some connections with the VCs, [telco] people, and startup CEOs. From there, I realised there's nobody doing this, it's still a very small portion of people who are doing this.
P4	PNET LN	First, networks and friendships. You're going to meet with people and have better relationships with them. When you go overseas, if you are poor, you're at least very smart or if you are rich or come from a rich family, you are an A list of people.
P4	INKI	For me, it's another way to learn about globalisation. I feel like I need to go to Europe to understand more about international people. So, I chose there. In 2008, I went to Germany to do an internship in

		one of Indonesia's conglomerate factories. I went to a small city near Berlin. I worked in human resources because I wanted to understand how Germans actually work. Compared to Indonesia, it is of course very different. I learned a lot about automation. The factory had less than 30 people so everything is like a machine. It was actually mind blowing for us because back in Indonesia in 2006, I went for another internship (before I went to Germany) in [large technology company] factory which had like 10,000 people.
P4	PNET	From my work experience - it's only internship. It didn't really give me the same effect as someone who has worked for three to four years. When I was abroad, meeting people who have got the same lifestyle, family background, and passion actually boosted my career. For example, some of my investors
P4	LN CV	From the Indonesian perspective, Indonesia is a bit different from US or Europe. Here, you don't need to be very smart to be successful. You just need orang dalam, you need to know the right people to get the right projects. If you're very smart and very [unknown phrase], if you are really ambitious because you are smart, you go to the US or Australia. You go to developed countries because skills are more respected than just other things right. That's why a lot of Indonesian scientists or all the smart people stay in Europe, Australia, or the US because they are more respected there. But in Indonesia, I think social capital is more important to understand who knows who and because we still see clusters of people.
P4	SIN FR	I have one investor from Malaysia. I made a deal with her. The story is simple. She lives in Indonesia but goes back and forth from Indonesia to Malaysia and Middle East. I came to her like "Bu, I really need you to be my partner. I will have a lot of clients from banks or competitors from banks. I know that you're very deep when it comes to networking in the banking and financial industry, so I need you to be my partner. Whatever your company's standard to invest, I will follow". She said "Oh, yes". And I replied, "Maybe like 5-10% is okay". She said, "No, our SOP is 20%". I said, "Oh okay, if 20% then my valuation right now is this. So, you need to invest this much money".
P4	LN PNET	I haven't used my international friends because my business is very local. I haven't used my international friends to actually help me do business. So, what I can say right now, those who are already working with me are Indonesian friends that I met overseas.
P4	SSIC	I think my lifestyle requires me to be someone flamboyant, to be someone who is very open with different people. If you make some deals – to create events or just to party together, you need to be a nice and cool guy. I think that has allowed me to make friends with a lot of people with different backgrounds. That has helped me when I work as an entrepreneur or even as a worker. You can read people. But the educational knowledge is none. But let's say, a framework of doing things, timetables, making reports yeah but not as big as the social capital and how I require soft skills. Universities don't teach you soft skills, right? You have to learn it yourself.
P4	OPR PNET CSE CV	Most of the startup founders who are not able to go abroad, they are very conventional when they see startups. While I was getting knowledge about corporations from [large tech group], and the ideas that might work when I was living overseas. I was also having a lot of networks to communicate with my friends in Germany and other parts of the world to see whether this is also something new in different parts of the world. This gave me confidence to pursue entrepreneurship. It's not like "Oh

		okay I want to be an entrepreneur" but it's an opportunity after seeing different factors that happened in 2013-2014. That I might have a chance to be the first mover in the startup society in Indonesia.
P4	SSIC CSE LANG PO CV	So, I grew up outside, this built my character to be very open, outspoken. Most Indonesians are very shy especially when communicating in English. They get involved in discussions and even though they don't agree, they will say, "Okay, okay". They just don't want to put effort to answer in English sometimes. This doesn't happen when you have international experience. Disagreement with different people is normal. So, I think those experiences have allowed me to talk with lots of international VCs and just be myself.
P4	SSIC FR	Sometimes the way I do fundraising - I need to know the person for at least six months to one year to gain the chemistry and understand what they want. I learned that when you do fundraising, the most important thing is trust. The most important thing is they have confidence in you. They know you and they feel like it's safe to put money in whatever business I'm creating. I learned in Germany and Australia that when people make deals, bosses don't talk about it. But the first thing they want to know is whether they can trust you. I lived in different parts of the world, China, Japan, Korea, Singapore and management are all the same. You know what makes us different is the way we talk to them
P4	FR SSIC	The most important thing for me is different people, different story. For me that is they will listen to you as long as they trust you. It's the same for every nation but something that Indonesians who haven't been abroad don't understand. Let's say, if they're Sundanese, they will bring their Sundanese customs of doing business. So, you can't do this. You need to bring your international pace to talk to them then they will understand. This is the thing that helped me talk with international investors even though I only have one right now.
P4	PNET	The one that really gave me a boost in my career is my network that I created from parties. From people that I ran into on the streets, people that I met from my hobbies. Those are the ones who boosted my career. Sadly, it's not from my international education or work experiences because I don't even remember my master's degree on international business.
P4	IND PP	What I learned about going abroad is that you learn about life. You go to different places alone that shape you, learn things yourself, make friends, manage your time, find your passion. That's the benefit that Indonesians who don't yet have opportunities to go abroad will never have.
P4	GP	What the Indonesian government can do is they can create a program for entrepreneurs to learn and live outside of Indonesia. Not collaborating with universities but maybe with institutions that allows them to work abroad or even validate their business ideas, not just in Indonesia but also abroad. And not only tech, but it could also be just businesses – F&B or whatever. Give them a chance to live for at least six months or more in Europe, US, Australia. See how they will get a new mindset, perspective, and new ideas and clients. Do you know Y Combinators? What they are doing right now is that they select several startups from Indonesia and if they pass the interview, they need to be in the US for one or three months. Live there, exchange ideas, learn directly from mentors in YC bootcamp. I think the rate of success when they come back is huge.

P4	OPR	When I was in Melbourne, the idea was simple. When we want to go out, there are so many platforms whether it's offline or online that gives you information about things to do in Melbourne. You will know there's a concert on in zoo. You can do this in St Kilda. That was even before social media. You can go to the website, have flyers, go into some university websites to see what's happening. It was so easy to go out. In Jakarta, it's a bit different. You only go to malls and see what's happening in malls back then. That was before Google was big. The idea actually came from my experience when I was living overseas. I thought it was going to work here in Indonesia where people can have just one platform or one application to get access about things to do or what's happening in Jakarta at that time with one single click. My proposition at the beginning when I created [entertainment platform] was there's a problem that people have no access to activities in Jakarta
P4	OPR	When you are overseas, you will see something that is already happening there compared to here. If you see Gojek, they see like Lyft or Uber, right? They recreated Uber with Gojek (Ojek). For me, that is another value that brings advantages to people who go overseas. You have more ideas; you know what works and what doesn't work compared to people who don't go abroad. When you are travelling, you only see and experience the country. If you don't live there, you don't actually use the business ideas that work there on a daily basis like for three months or even two years. Sometimes a lot of ideas that people see during their travels work for like a week then you bring the idea here, it's doesn't work.
P4	FR SSIC	When you fundraise with people coming from different parts of the world, then they know that I can speak English and they can understand it so that is already a plus. Coming from [prominent Australian university] or different parts of the world gives them confidence that I'm a global citizen. Of course, the connections that I have – I always talk to my friends in different parts of the world just to give them some updates about what they're doing and what's happening there. This is just to have some basa basi with the investors. That is also a plus. Rather than just reading from global news, it is different when you actually talk with someone in Berlin and exchange messages as it will give you some chemistry.
P4	LN ST	With the privilege of my parents' networks, I was able to work where I wanted to work. So, I know that to be an entrepreneur, you need to understand strategy, you need to understand execution. I was asking my dad to find a job for me in the corporate world but to only do strategy and not operation. If you are into operation, then you're going to lose a lot of time doing small things.
P4	PO	You're also going to be open to more values. When you go abroad, you will see people with different sexual orientations as normal, especially when you're open to more values and perspectives. You're not going to be judging people who are different. In Indonesia, if you are one of these people, it's not going to be nice when people notice them. But overseas, it has become something normal. So, this can give you more value to be more open.
P4	CSE PO IND	You're going to find yourself. Your parents or your family won't be with you so you can have the lifestyle you want to have. If you want to party, you can go party. If you want to bartend, you can be a bartender. If you want to do whatever you want, whether it's your passion or your hobby, you're going to be yourself 100% without anyone judging. This is actually something big because then you will gain confidence. You're also going to be open to more values.

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